Program

23rd ANNUAL MEETING OF THE
VISION SCIENCES SOCIETY
MAY 19-24 2023, ST. PETER BEACH FL.
Welcome to VSS 2023!

We're thrilled to be back to a fully in-person meeting with attendance approaching pre-pandemic levels. Let's look at some of the highlights.

Of course, the foundation of the meeting is the scientific content. This year VSS features 215 talk presentations and 1084 posters. For the first time, the Undergraduate Just-in-Time poster sessions will be in-person on Saturday and Monday so please come out to meet and support our undergraduates.

Considering the proliferation of artificial intelligence algorithms and the new challenges they present to society, this year’s Keynote Lecture on Saturday is especially timely: Hany Farid will be talking about “Creating, (Mis)using, and Detecting Deep Fakes”.

Bring your dancing shoes and be ready to glow on Tuesday night — Club Vision is back!

The Awards Session on Monday celebrates the accomplishments of three remarkable vision scientists and provides an opportunity for them to present their work. The 2023 Davida Teller Award will be presented to Mary A. Peterson for her pioneering research in figure-ground segmentation. The Ken Nakayama Medal will be awarded to Bill Warren in honor of his research into perception and action in real and virtual worlds. The Elsevier/VSS Young Investigator Award will go to Brian Anderson to honour his insights into the relationship between visual attention and reward.

VSS provides many training, mentorship, and career-building opportunities and aims to ensure they are beneficial to members from diverse backgrounds. The Student Postdoc Advisory Committee (SPC) is hosting an Accessibility Event on “How to Make Accessible Scientific Presentations” on Sunday. We encourage everyone to attend, especially trainees, to learn how to optimize the reach of posters and talks to all in the community.

This year the SPC and Females of Vision et al. (FoVea) are working together to host a two-part Career Transitions Workshop. The workshop features an Early Career Panel of researchers who have transitioned between a variety of career paths, followed by a Round Table Discussion with smaller groups. A special Symposium on Critical Perspectives on Vision Science will address how the field can overcome historic biases in domains like participant selection and development of stimuli & methods. An Inclusivity Roundtable on Saturday will provide an opportunity for people from a range of backgrounds to network. US-based researchers can learn more about American funding opportunities in the US Funding Workshop on Sunday. Trainees from all countries can also benefit from a Workshop on Strategies for Funding Your Research Ideas Around the Globe on Saturday.

Students and postdocs can sign up to participate in Meet the Professors on Monday and Connect with Industry on Tuesday. The Undergraduate Meet-and-Greet on Monday provides a friendly opportunity for undergraduate students to meet one another and discuss career options with graduate students and faculty members. The Canadian Vision Science Social on Sunday facilitates networking with colleagues north of the border. The Visibility event on Friday brings together LGBTQ+ scientists and friends. Longstanding satellites are returning – Computational and Mathematical Models in Vision (MODVIS), Philosophy of Vision Workshop (phiVis), and events hosted by VPixx and WorldViz. In addition, this year's VSS includes a new Pre-Data-Collection Poster Session on Monday where researchers can discuss research projects in the planning stage. All events are open to everyone.
All registrants are encouraged to join the Opening Night Reception on Friday as well as Demo Night and the preceding beach barbecue on Monday.

In the Public Lecture, Rowan Candy will discuss “Seeing Through the Eyes of a Baby” offsite at the Enoch Davis Centre.

Although we have eliminated the online component of the meeting, V-VSS, we have nevertheless preserved some of the benefits we gained from the online and hybrid meetings over the past three years. All talks will be recorded and available online, and poster presenters have the opportunity to upload their posters for current members and registrants to access. These resources are available online for all members through August 31.

VSS would not be possible without the tremendous amount of work that goes on behind the scenes by many dedicated individuals. The Society is incredibly fortunate to have the longstanding experience, initiative, creativity, professionalism, and dedication of our organizers, Meeting Perfect, particularly Shauney Wilson (President), Shawna Lampkin, Jeff Wilson, and Lily Carrick. Their hard work and proficiency lives up to the ideals conveyed by the company name. The conference also relies on the dedicated service of our Board of Directors – Geoff Boynton, Rowan Candy, Anya Hurlbert, Krystel Huxlin, Eileen Kowler, Mike Landy, Shin'ya Nishida, and Ruth Rosenholtz. As the number of events and initiatives have grown over the years, this team has dedicated untold time to optimize the meeting. In addition, past presidents Eileen Kowler and Laurie Wilcox have been invaluable sources of wise advice. VSS also benefits tremendously from the service of many volunteers, including the SPC, the DEI Advisory Committee, Awards Committees, FoVea, and abstract reviewers.

We are also grateful to the National Eye Institute for providing travel support to 75 award winners, Elsevier for their continued support of the International Travel Awards and Young Investigator Awards, and our corporate Sponsors and Exhibitors for their ongoing contributions.

Jody Culham  
VSS President, 2022-23  
April 2023
## Schedule of Events

### Thursday, May 18, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am - 6:00 pm</td>
<td>Computational and Mathematical Models in Vision (MODVIS)</td>
<td>Satellite Blue Heron</td>
</tr>
</tbody>
</table>

### Friday, May 19, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 6:00 pm</td>
<td>Registration Open</td>
<td>Registration Grand Palm Colonnade</td>
</tr>
<tr>
<td>9:00 am - 11:30 am</td>
<td>What's (not) in a name: Guidelines for replicable projector-based vision experiments Organized by VPixx Technologies</td>
<td>Satellite Jasmine/Palm</td>
</tr>
<tr>
<td>9:00 am - 12:00 pm</td>
<td>Computational and Mathematical Models in Vision (MODVIS)</td>
<td>Satellite Blue Heron</td>
</tr>
<tr>
<td>11:30 am - 12:00 pm</td>
<td>Coffee Break</td>
<td>Break Garden Courtyard</td>
</tr>
<tr>
<td>11:30 am - 2:30 pm</td>
<td>Lunch (on your own)</td>
<td>Break Garden Courtyard</td>
</tr>
<tr>
<td>12:00 pm - 2:00 pm</td>
<td>Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production</td>
<td>Symposium Talk Room 1</td>
</tr>
<tr>
<td>12:00 pm - 2:00 pm</td>
<td>How does the brain combine generative models and direct discriminative computations for visual inference?</td>
<td>Symposium Talk Room 2</td>
</tr>
<tr>
<td>2:00 pm - 2:30 pm</td>
<td>Coffee Break</td>
<td>Break Garden Courtyard</td>
</tr>
<tr>
<td>2:30 pm - 4:30 pm</td>
<td>The Active Fovea</td>
<td>Symposium Talk Room 1</td>
</tr>
<tr>
<td>2:30 pm - 4:30 pm</td>
<td>The development of categorical object representations: bridging visual neuroscience and deep learning</td>
<td>Symposium Talk Room 2</td>
</tr>
<tr>
<td>4:30 pm - 5:00 pm</td>
<td>Coffee Break</td>
<td>Break Garden Courtyard</td>
</tr>
<tr>
<td>5:00 pm - 7:00 pm</td>
<td>Object representations in the parietal cortex</td>
<td>Symposium Talk Room 1</td>
</tr>
<tr>
<td>5:00 pm - 7:00 pm</td>
<td>Continuous psychophysics</td>
<td>Symposium Talk Room 2</td>
</tr>
<tr>
<td>7:00 pm - 9:30 pm</td>
<td>Opening Night Reception</td>
<td>Social Beachside Decks</td>
</tr>
<tr>
<td>8:30 pm - 9:30 pm</td>
<td>Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends</td>
<td>Satellite Garden Courtyard</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Location</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>7:30 am - 6:45 pm</td>
<td>Registration Open</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grand Palm Colonnade</td>
</tr>
<tr>
<td>7:45 am - 8:45 am</td>
<td>Morning Coffee &amp; Continental Breakfast</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Garden Courtyard &amp; Pavilion</td>
</tr>
<tr>
<td>8:00 am - 5:30 pm</td>
<td>Exhibits Open</td>
<td>Exhibits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pavilion</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td>Face Perception: Disorders, individual differences, and social cognition</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 1</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td>Perceptual Organization: Bistability, representation</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 2</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td>Saturday Morning Posters</td>
<td>Poster Session</td>
</tr>
<tr>
<td></td>
<td>Visual Search: Features, models, neural; Attention: Temporal,</td>
<td>Banyan Breezeway</td>
</tr>
<tr>
<td></td>
<td>divided; Binocular Vision: Clinical; Plasticity and Learning: Clinical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>applications; Aging; Attention: Endogenous, exogenous; Spatial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vision: Perceptual properties in health and disease</td>
<td></td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td>Saturday Morning Posters</td>
<td>Poster Session</td>
</tr>
<tr>
<td></td>
<td>Temporal Processing: Duration, timing perception; Perception &amp;</td>
<td>Pavilion</td>
</tr>
<tr>
<td></td>
<td>Action: Reaching, aiming, interception; Visual Memory: Long term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>memory; Motion: Models, neural mechanisms; Multisensory Processing:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visuo-haptic; Perception and Action: Navigation and flow in virtual environments</td>
<td></td>
</tr>
<tr>
<td>9:45 am - 10:30 am</td>
<td>Coffee Break</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Garden Courtyard &amp; Pavilion</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td>Materials, Objects and Perception</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 1</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td>Eye Movements: Perception, cognition</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 1</td>
</tr>
<tr>
<td>12:30 pm - 2:30 pm</td>
<td>Lunch (on your own)</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>Cash lunch available in Courtyard</td>
<td>Grand Palm Colonnade</td>
</tr>
<tr>
<td>12:45 pm - 2:15 pm</td>
<td>Virtual Reality + Eye Tracking for Research</td>
<td>Satellite</td>
</tr>
<tr>
<td></td>
<td>Organized by WorldViz VR</td>
<td>Blue Heron</td>
</tr>
<tr>
<td>12:45 pm - 2:15 pm</td>
<td>Inclusivity Roundtables</td>
<td>Networking</td>
</tr>
<tr>
<td></td>
<td>VSS Diversity event</td>
<td>Jasmine/Palm</td>
</tr>
<tr>
<td>12:45 pm - 2:15 pm</td>
<td>VSS Workshop for PhD Students and Postdocs</td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td>Strategies for Funding your Research Ideas Around the Globe</td>
<td>Sabal/Sawgrass</td>
</tr>
<tr>
<td>2:30 pm - 4:15 pm</td>
<td>Development: Infancy</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 1</td>
</tr>
<tr>
<td>2:30 pm - 4:15 pm</td>
<td>Artificial neural networks and vision</td>
<td>Talk Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk Room 2</td>
</tr>
<tr>
<td>2:45 pm - 6:45 pm</td>
<td>Saturday Afternoon Posters</td>
<td>Poster Session</td>
</tr>
<tr>
<td></td>
<td>Face Perception: Individual differences; Attention: Top-down, reward;</td>
<td>Banyan Breezeway</td>
</tr>
<tr>
<td></td>
<td>Face Perception: Emotion; Color, Light and Materials: Cognition;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color, Light and Materials: Lightness, brightness;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergraduate Just-In-Time 1</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Location</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2:45 pm - 6:45 pm</td>
<td><strong>Saturday Afternoon Posters</strong>&lt;br&gt;Eye Movements: Perception, remapping; 3D: Cues and integration; Attention: Affect, threat; Spatial Vision: Crowding and eccentricity; Binocular Vision: Disparity processing; Object Recognition: Reading; Perception and Action</td>
<td>Poster Session Pavilion</td>
</tr>
<tr>
<td>4:15 pm - 5:00 pm</td>
<td><strong>Afternoon Coffee &amp; Snack</strong></td>
<td>Break</td>
</tr>
<tr>
<td>5:15 pm - 6:45 pm</td>
<td><strong>Intuitive Physics and Event Perception</strong></td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td>5:15 pm - 6:45 pm</td>
<td><strong>Temporal Processing</strong></td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td>7:15 pm - 8:15 pm</td>
<td><strong>Keynote Address given by Hany Farid</strong>&lt;br&gt;Creating, (Mis)using, and Detecting Deep Fakes</td>
<td>Keynote Talk Room 1-2</td>
</tr>
<tr>
<td><strong>Sunday, May 21, 2023</strong></td>
<td><strong>Registration Open</strong></td>
<td>Registration Grand Palm Colonnade</td>
</tr>
<tr>
<td>7:45 am - 8:45 am</td>
<td><strong>Morning Coffee &amp; Continental Breakfast</strong></td>
<td>Break</td>
</tr>
<tr>
<td>8:00 am - 5:30 pm</td>
<td><strong>Exhibits Open</strong></td>
<td>Exhibits Pavilion</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td><strong>Perceptual Organization: Motion, texture</strong></td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td><strong>Multisensory Processing</strong></td>
<td>Talk Session Talk Room 2</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Sunday Morning Posters</strong>&lt;br&gt;Visual Search: Eye movements, attention, individual differences; Attention: Spatial; Attention: Objects; Face Perception: Experience, learning, and expertise; Attention: Cueing, inattention</td>
<td>Poster Session Banyan Breezeway</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Sunday Morning Posters</strong>&lt;br&gt;Perceptual Decision-Making: Eye Movements: Saccades and pursuit; Object Recognition: Visual preference, features and objects; Spatial Vision: Neural mechanisms; Color, Light and Materials: Surfaces, materials, constancy; Object Recognition: Neural organization and representations</td>
<td>Poster Session Pavilion</td>
</tr>
<tr>
<td>9:45 am - 10:30 am</td>
<td><strong>Coffee Break</strong></td>
<td>Break</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td><strong>Plasticity and Learning 1</strong></td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td><strong>Perception and Action: Reach, grasp, walk</strong></td>
<td>Talk Session Talk Room 2</td>
</tr>
<tr>
<td>12:30 pm - 2:30 pm</td>
<td><strong>Canadian Vision Science Social</strong>&lt;br&gt;Sponsored by the York Centre for Vision Research and VISTA</td>
<td>Satellite Sabal/Sawgrass</td>
</tr>
<tr>
<td>12:30 pm - 2:30 pm</td>
<td><strong>Lunch (on your own)</strong>&lt;br&gt;cash lunch available in Courtyard</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td><strong>7:30 am - 6:45 pm</strong> Registration Open</td>
<td>Registration Grand Palm Colonnade</td>
</tr>
<tr>
<td></td>
<td><strong>7:45 am - 8:45 am</strong> Morning Coffee &amp; Continental Breakfast</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td><strong>8:00 am - 5:30 pm</strong> Exhibits Open</td>
<td>Exhibits Pavilion</td>
</tr>
<tr>
<td></td>
<td><strong>8:15 am - 9:45 am</strong> Perceptual Organization: Motion, texture</td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td></td>
<td><strong>8:15 am - 9:45 am</strong> Multisensory Processing</td>
<td>Talk Session Talk Room 2</td>
</tr>
<tr>
<td></td>
<td><strong>8:30 am - 12:30 pm</strong> Sunday Morning Posters</td>
<td>Poster Session Banyan Breezeway</td>
</tr>
<tr>
<td></td>
<td><strong>8:30 am - 12:30 pm</strong> Sunday Morning Posters</td>
<td>Poster Session Pavilion</td>
</tr>
<tr>
<td></td>
<td><strong>9:45 am - 10:30 am</strong> Coffee Break</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td><strong>10:45 am - 12:30 pm</strong> Plasticity and Learning 1</td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td></td>
<td><strong>10:45 am - 12:30 pm</strong> Perception and Action: Reach, grasp, walk</td>
<td>Talk Session Talk Room 2</td>
</tr>
<tr>
<td></td>
<td><strong>12:30 pm - 2:30 pm</strong> Canadian Vision Science Social</td>
<td>Satellite Sabal/Sawgrass</td>
</tr>
<tr>
<td></td>
<td><strong>12:30 pm - 2:30 pm</strong> Lunch (on your own)&lt;br&gt;cash lunch available in Courtyard</td>
<td>Break Garden Courtyard</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Type</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td>Accessibility event: how to make accessible scientific presentations Organized by the Student-Postdoc Advisory Committee (SPC)</td>
<td>Workshop</td>
</tr>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td>US Funding Workshop</td>
<td>Workshop</td>
</tr>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td>VSS Public Lecture given by T. Rowan Candy Seeing through the eyes of a baby</td>
<td>Other</td>
</tr>
<tr>
<td>2:30 pm - 4:15 pm</td>
<td>Object Recognition: Artificial neural networks, models</td>
<td>Talk Session</td>
</tr>
<tr>
<td>2:30 pm - 4:15 pm</td>
<td>Visual Search: Attention, memory</td>
<td>Talk Session</td>
</tr>
<tr>
<td>2:45 pm - 6:45 pm</td>
<td>Sunday Afternoon Posters Development: Neural mechanisms and eye movements; Visual Working Memory: Interference; Visual Working Memory: Attention, load and capacity; Eye Movements: Visual Impairment; Attention: Individual differences; Motion: Local, in depth; Perceptual Decision-Making: Confidence</td>
<td>Poster Session</td>
</tr>
<tr>
<td>2:45 pm - 6:45 pm</td>
<td>Sunday Afternoon Posters Binocular Vision: Integration and rivalry; Perception and Action: Navigation and flow; 3D: Shape; Perceptual Organization: Shape, figure/ground, occlusion; Plasticity and Learning: Statistical learning: Plasticity and Learning: Tasks, models; Face Perception: Insights from artificial neural networks</td>
<td>Poster Session</td>
</tr>
<tr>
<td>4:15 pm - 5:00 pm</td>
<td>Afternoon Coffee &amp; Snack</td>
<td>Break</td>
</tr>
<tr>
<td>5:15 pm - 7:15 pm</td>
<td>Attention: Mechanisms and models</td>
<td>Talk Session</td>
</tr>
<tr>
<td>5:15 pm - 7:15 pm</td>
<td>Color, Light and Materials: Cones to cognition</td>
<td>Talk Session</td>
</tr>
<tr>
<td>7:30 pm - 8:30 pm</td>
<td>Career Transitions Workshop, Part 1: Early Career Panel Organized by the VSS Student-Postdoc Advisory Committee (SPC)</td>
<td>Workshop</td>
</tr>
<tr>
<td>8:45 pm - 9:45 pm</td>
<td>Career Transitions Workshop, Part 2: Where do I go from here? Round table Discussion Organized by Females of Vision et al (FoVea)</td>
<td>Satellite</td>
</tr>
</tbody>
</table>

**Monday, May 22, 2023**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Type</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 am - 8:45 am</td>
<td>Morning Coffee &amp; Continental Breakfast</td>
<td>Break</td>
<td>Garden Courtyard &amp; Pavilion</td>
</tr>
<tr>
<td>7:45 am - 1:30 pm</td>
<td>Registration Open</td>
<td>Registration</td>
<td>Grand Palm Colonnade</td>
</tr>
<tr>
<td>8:00 am - 12:30 pm</td>
<td>Exhibits Open</td>
<td>Exhibits</td>
<td>Pavilion</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td>Spatial Vision</td>
<td>Talk Session</td>
<td>Talk Room 1</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td>Motion: Neural mechanisms, models, perception</td>
<td>Talk Session</td>
<td>Talk Room 2</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Monday Morning Posters</strong>&lt;br&gt;Scene Perception: Spatiotemporal factors; Attention: Features; Attention: Temporal, templates, memory; Object Recognition: Models; Image Preference, Statistics and Aesthetics; Undergraduate Just-In-Time 2</td>
<td>Poster Session Banyan Breezeway</td>
<td></td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Monday Morning Posters</strong>&lt;br&gt;Visual Working Memory: Space, features, objects; Multisensory Processing: Audio-visual, visuo-vestibular; Visual Working Memory: Neural mechanisms; Visual Working Memory: Serial dependence; Eye Movements: Individual differences, novel measurement</td>
<td>Poster Session Pavilion</td>
<td></td>
</tr>
<tr>
<td>9:45 am - 10:30 am</td>
<td><strong>Coffee Break</strong></td>
<td>Break Garden Courtyard &amp; Pavilion</td>
<td></td>
</tr>
<tr>
<td>10:45 am - 12:15 pm</td>
<td><strong>Development: Disorders</strong></td>
<td>Talk Session Talk Room 1</td>
<td></td>
</tr>
<tr>
<td>10:45 am - 12:15 pm</td>
<td><strong>3D: Disparity and shape</strong></td>
<td>Talk Session Talk Room 1</td>
<td></td>
</tr>
<tr>
<td>12:30 pm - 2:00 pm</td>
<td><strong>VSS Awards Session</strong>&lt;br&gt;Davida Teller Award, Ken Nakayama medal, Young Investigator talks</td>
<td>Award Talk Room 2</td>
<td></td>
</tr>
<tr>
<td>12:30 pm - 2:30 pm</td>
<td><strong>Lunch (on your own)</strong>&lt;br&gt;cash lunch available in Courtyard</td>
<td>Break Garden Courtyard</td>
<td></td>
</tr>
<tr>
<td>2:00 pm - 4:00 pm</td>
<td><strong>Pre-Data-Collection Poster Session</strong></td>
<td>Satellite Jasmine/Palm</td>
<td></td>
</tr>
<tr>
<td>2:30 pm - 3:30 pm</td>
<td><strong>Undergrad Meet and Greet</strong></td>
<td>Student Banyan/Citrus</td>
<td></td>
</tr>
<tr>
<td>3:30 pm - 5:00 pm</td>
<td><strong>Meet the Professors</strong></td>
<td>Student Banyan Breezeway</td>
<td></td>
</tr>
<tr>
<td>6:00 pm - 8:00 pm</td>
<td><strong>Demo Night BBQ</strong></td>
<td>Social Beachside Decks</td>
<td></td>
</tr>
<tr>
<td>7:00 pm - 10:00 pm</td>
<td><strong>Demo Night</strong></td>
<td>Social Talk Room 1-2</td>
<td></td>
</tr>
</tbody>
</table>

**Tuesday, May 23, 2023**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 am - 8:45 am</td>
<td><strong>Morning Coffee &amp; Continental Breakfast</strong></td>
<td>Break Garden Courtyard &amp; Pavilion</td>
</tr>
<tr>
<td>7:45 am - 6:45 pm</td>
<td><strong>Registration Open</strong></td>
<td>Registration Grand Palm Colonnade</td>
</tr>
<tr>
<td>8:00 am - 5:30 pm</td>
<td><strong>Exhibits Open</strong></td>
<td>Exhibits Pavilion</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td><strong>Plasticity and Learning 2</strong></td>
<td>Talk Session Talk Room 1</td>
</tr>
<tr>
<td>8:15 am - 9:45 am</td>
<td><strong>Binocular Vision</strong></td>
<td>Talk Session Talk Room 2</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Tuesday Morning Posters</strong>&lt;br&gt;Visual Search: Scenes and other natural environments; Scene Perception: Neural mechanisms; Scene Perception: Categorization, memory, cognition; Face Perception: Models; Face Perception: Neural mechanisms; Perceptual Organization: Segmentation, grouping, similarity; Color, Light, and Materials: Neural</td>
<td>Poster Session Banyan Breezeway</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Location</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| 8:30 am - 12:30 pm | **Tuesday Morning Posters**  
Spatial Vision: Models and image statistics; Attention: Bottom-up;  
Visual Memory: Buildup, imagery, ensembles; Development:  
Perception and cognition; Motion: Higher-order; Eye Movements: Complex tasks | Poster Session Pavilion |
| 9:45 am - 10:30 am | Coffee Break                                                           | Break         |
| 10:45 am - 12:30 pm | **Visual Memory: Space, time, features, objects**                      | Talk Session Talk Room 1 |
| 10:45 am - 12:30 pm | **Object Recognition: Categories, neural mechanisms**                  | Talk Session Talk Room 2 |
| 12:30 pm - 1:15 pm | **VSS Business Meeting**                                                | Business Talk Room 2 |
| 12:30 pm - 2:30 pm | Lunch (on your own)  
cash lunch available in Grand Palm Colonnade                           | Break         |
| 12:30 pm - 2:30 pm | **phiVis: Philosophy of Vision Science Workshop**                       | Satellite Glades/Jasmine |
| 1:15 pm - 2:30 pm | **Connect with Industry**                                               | Networking Blue Heron |
| 2:30 pm - 4:15 pm | **Eye Movements: Neural processes and models**                          | Talk Session Talk Room 1 |
| 2:30 pm - 4:15 pm | **Scene Perception**                                                    | Talk Session Talk Room 2 |
| 2:45 pm - 6:45 pm | **Tuesday Afternoon Posters**                                           | Poster Session Banyan Breezeway |
| 2:45 pm - 6:45 pm | **Tuesday Afternoon Posters**                                           | Poster Session Pavilion |
| 4:15 pm - 5:00 pm | Afternoon Coffee & Snack                                                 | Break         |
| 5:15 pm - 7:15 pm | **Attention: Models, individual differences, reward, capture, shifting** | Talk Session Talk Room 1 |
| 5:15 pm - 7:15 pm | **Visual Working Memory**                                               | Talk Session Talk Room 2 |
| 10:00 pm - 2:00 am | **Club Vision**                                                          | Social Talk Room 1-2 |

**Wednesday, May 24, 2023**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 am - 8:45 am</td>
<td>Morning Coffee &amp; Continental Breakfast</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Garden Courtyard &amp; Pavilion</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Location</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>7:45 am - 12:45 pm</td>
<td>Registration Open</td>
<td>Registration</td>
</tr>
<tr>
<td>8:15 am - 10:00 am</td>
<td>Perceptual Decision-Making and Confidence</td>
<td>Talk Session</td>
</tr>
<tr>
<td>8:15 am - 10:00 am</td>
<td>Visual Search</td>
<td>Talk Session</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Wednesday Morning Posters</strong></td>
<td>Poster Session</td>
</tr>
<tr>
<td></td>
<td>Visual Search: Attention; Visual Search: Strategies, efficiencies; Visual Memory: Capacity, encoding, retrieval; Spatial Vision: Texture; Temporal Processing: Neural mechanisms and models; Object Recognition: Features and parts</td>
<td>Banyan Breezeway</td>
</tr>
<tr>
<td>8:30 am - 12:30 pm</td>
<td><strong>Wednesday Morning Posters</strong></td>
<td>Poster Session</td>
</tr>
<tr>
<td></td>
<td>Eye Movements: Attention, cognition, neural processes; Eye Movements: Fixation; Scene Perception: Natural image statistics; Scene Perception: Models; Scene Perception: Virtual environments; Perceptual Organization: Symmetry, preference, ensembles; Perception and Action: Perception of Human Actions and Bodies</td>
<td>Pavilion</td>
</tr>
<tr>
<td>10:00 am - 10:45 am</td>
<td>Coffee Break</td>
<td>Break</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td><strong>Attention: Spatial, featural, temporal, divided</strong></td>
<td>Talk Session</td>
</tr>
<tr>
<td>10:45 am - 12:30 pm</td>
<td><strong>Face Perception: Neural mechanisms and models</strong></td>
<td>Talk Session</td>
</tr>
</tbody>
</table>
## 2023 Board of Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>University/Institution</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geoffrey Boynton</td>
<td>President-Elect</td>
<td>University of Washington</td>
<td>Website</td>
</tr>
<tr>
<td>T. Rowan Candy</td>
<td>Director</td>
<td>Indiana University</td>
<td>Website</td>
</tr>
<tr>
<td>Jody Culham</td>
<td>President</td>
<td>University of Western Ontario</td>
<td>Website</td>
</tr>
<tr>
<td>Anya Hurlbert</td>
<td>Treasurer</td>
<td>Newcastle University</td>
<td>Website</td>
</tr>
<tr>
<td>Krystel Huxlin</td>
<td>Director</td>
<td>University of Rochester</td>
<td>Website</td>
</tr>
<tr>
<td>Eileen Kowler</td>
<td>Past President</td>
<td>Rutgers University</td>
<td>Website</td>
</tr>
<tr>
<td>Michael Landy</td>
<td>Director</td>
<td>New York University</td>
<td>Website</td>
</tr>
<tr>
<td>Shin’ya Nishida</td>
<td>Director</td>
<td>Kyoto University</td>
<td>Website</td>
</tr>
<tr>
<td>Ruth Rosenholtz</td>
<td>Director</td>
<td>MIT</td>
<td>Website</td>
</tr>
</tbody>
</table>

*Term ends in May of year shown.*
Hany Farid

*Electrical Engineering & Computer Sciences and the School of Information, University of California Berkeley*

**Hany Farid** is a Professor at the University of California, Berkeley with a joint appointment in Electrical Engineering & Computer Sciences and the School of Information. His research focuses on digital forensics, forensic science, misinformation, and human perception. Dr. Farid received his undergraduate degree in Computer Science and Applied Mathematics from the University of Rochester in 1989, a M.S. in Computer Science from SUNY Albany in 1992, and his Ph.D. in Computer Science from the University of Pennsylvania in 1997. Following a two-year post-doctoral fellowship in Brain and Cognitive Sciences at MIT, Hany Farid joined the faculty at Dartmouth College in 1999 where he remained until 2019. Dr. Farid is the recipient of an Alfred P. Sloan Fellowship, a John Simon Guggenheim Fellowship, and is a Fellow of the National Academy of Inventors.

To learn more about Professor Hany Farid and his research, please visit his [website](#).

---

**Creating, (Mis)using, and Detecting Deep Fakes**

*Saturday, May 20, 2023, 7:15 – 8:15 pm, Talk Room 1-2*

Synthetic media – so-called deep fakes – have captured the imagination of some and struck fear in others. These stunningly realistic images, audio, and videos are the product of AI-powered synthesis tools. Although just the latest in a long line of techniques used to manipulate reality, deep fakes pose new opportunities and risks due to their ease of use and their democratized accessibility. I will describe how deep fakes are created, how they are being used and misused, and if and how they can be perceptually and computationally distinguished from reality.
Davida Teller Award – Mary A. Peterson

Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2

The Vision Sciences Society is honored to present Mary A. Peterson with the 2023 Davida Teller Award

Congratulations to Mary A. Peterson, the eleventh recipient of the Davida Teller Award. The Teller Award was created to honor the late Davida Teller’s exceptional scientific achievements, commitment to equity, and strong history of mentoring. The award is given to a female vision scientist in recognition of her exceptional, significant, or lasting contributions to the field of vision science.

Mary A. Peterson
Professor of Psychology and Director of the Cognitive Science Program at the University of Arizona

Dr. Mary A. Peterson is a Professor of Psychology and Director of the Cognitive Science Program at the University of Arizona. Following a B.A. in English Literature from Marymount Manhattan College, where she graduated summa cum laude in 1972, Mary decided to change direction. Ultimately, she decided to study visual perception with Julian Hochberg at Columbia University (1978-1983). After starting as an Assistant Professor at SUNY Stony Brook, she moved the University of Arizona in 1988.

Dr. Peterson is a leader in the study of perceptual organization and a pioneer in the modern study of figure-ground processing. She has employed clever behavioral experiments, neuroimaging, and patient work to demonstrate that perceptual organization is an iterative process in which past experience impacts all “stages” of perception. Although her revolutionary ideas and compelling data initially went against the grain of the then-prevailing theories of perception as a serial bottom-up process, her innovative perspective has now become the predominant way that vision scientists think about perception. Her research contributions have been widely recognized, including her election to fellow status in the American Association for the Advancement of Science (AAAS), the American Psychological Association (APA), the Association for Psychological Science (APS), the Society of Experimental Psychologists (SEP), and the International Neuropsychological Symposium (INS).

Dr. Peterson has been exemplary in her commitment to diversity, equity, and inclusion. Spurred by discussions at VSS 2015, she and a team of other women co-founded Females of Vision et al. (FoVea) to advance the visibility, impact, and success of women in vision science, with Mary spearheading a National Sciences Foundation grant to fund travel & networking awards, mentorship events, and other initiatives. FoVea events have become a vital part of the annual VSS meeting and have continually ensured that the mandate serves a range of marginalized groups. Mary has also been an advocate and ally to marginalized groups through service to her University, the Psychonomic Society, and Women in Cognitive Science (WiCS).

Mary has been widely recognized as a supportive and influential mentor, both to individuals and communities. In 2019, she was awarded an Excellence in Mentoring Award from the University of Arizona and the Early Career Psychologist Champion Award from the APA.

Dr. Peterson has been a member of the Board of Directors for VSS, served as Chair of the Governing Board of
the Psychonomic Society, was co-founder and President of the Configural Processing Consortium, and has been active in the Federation of Associations in Behavioral & Brain Sciences (FABBS). She received the Psychonomic Society's highest honor, the Clifford T. Morgan Distinguished Leadership Award.

Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2


The Ken Nakayama Medal is in honor of Professor Ken Nakayama's contributions to the Vision Sciences Society, as well as his innovations and excellence in the domain of vision sciences.

The winner of the Ken Nakayama Medal receives this honor for high-impact work that has made a lasting contribution in vision science in the broadest sense. The nature of this work can be fundamental, clinical or applied.

William H. (Bill) Warren
Chancellor's Professor, Brown University

Bill Warren received his B.A. in 1976 from Hampshire College concentrating in Psychology, Biology and Philosophy and a Ph.D. in 1982 from the University of Connecticut in Experimental Psychology with Robert Shaw and Michael Turvey. Following a brief post-doctoral stint at the University of Edinburgh with David Lee, he became faculty at Brown University, where he is now Chancellor’s Professor in the Department of Cognitive, Linguistic and Psychological Sciences. In 1998, he founded the Virtual Environment Navigation Lab (VENLab) to study perception and action, well before the recent adoption of virtual reality techniques in research.

Bill Warren has broadened the view of vision at VSS to include many questions about how vision guides people's interactions with the real and virtual world, which is obviously what vision is really for. His work has revealed how people use vision to perceive their environment, as well as how they subsequently control their actions. The former involves demonstrating people's proficiency at judging affordances, surface layout, and self-motion. The latter involves demonstrating how adaptive behavior emerges from the dynamic interaction between an organism and its environment. Bill has examined all this in a rigorous manner for a wide variety of topics such as judging whether one can step onto or pass between surfaces, judging where one is heading on the basis of the optic flow, controlling locomotion between obstacles, towards targets, and in large crowds, and navigating over longer distances. He has collaborated with movement scientists on visual-motor coordination, with biologists on insect flight control, with computer scientists on collective crowd dynamics, and with safety researchers on emergency evacuation. He has consistently combined experimental, computational and theoretical analyses of the problems he has tackled, often exposing implicit assumptions that others are making. Finally, he used mobile virtual reality — long before it became popular and accessible — to conduct ground-breaking experiments on how walking subjects use visual information to guide naturalistic behavior in controlled settings. Building on the theoretical insights of James Gibson, he has introduced the VSS community to a new way of considering vision. His work has been instrumental in defining the field that we know as Perception and Action.
Bill is the recipient of a Fulbright Research Fellowship, Brown's Teaching Award for Excellence in the Life Sciences, and is an elected Fellow of the Society of Experimental Psychologists. He has been Professeur Invité at the University of Paris Orsay and the University of Aix-Marseille, and is currently President of the International Society for Ecological Psychology.
Elsevier/VSS Young Investigator Award – Brian A. Anderson

Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2

The Vision Sciences Society is honored to present Brian A. Anderson with the 2023 Elsevier/VSS Young Investigator Award.

The Elsevier/VSS Young Investigator Award, sponsored by Vision Research, is given to an early-career vision scientist who has made outstanding contributions to the field. The nature of this work can be fundamental, clinical, or applied. The award selection committee gives highest weight to the significance, originality and potential long-range impact of the work. The selection committee may also take into account the nominee's previous participation in VSS conferences or activities, and substantial obstacles that the nominee may have overcome in their careers. The awardee is asked to give a brief presentation of her/his work and is required to write an article to be published in Vision Research.

Brian A. Anderson

Associate Professor, Department of Psychological & Brain Sciences, Texas A&M University

The 2023 Elsevier/VSS Young Investigator Award goes to Professor Brian A. Anderson for his seminal contributions to understanding of visual attention and cognition. Dr. Anderson is an Associate Professor with tenure in the Department of Psychological & Brain Sciences at Texas A&M University, where he also serves as the Director of Human Imaging. After graduating summa cum laude at the University of Maine at Augusta with a degree in Social Science, Dr. Anderson obtained an M.S. in Psychology working with Charles Folk at Villanova University and then a Ph.D. in Psychological and Brain Sciences with Steven Yantis at Johns Hopkins, where he also completed a short postdoctoral fellowship.

Dr. Anderson's research has provided fundamental insights into the mechanisms of visual attention. He pioneered a method for studying how the relationship between reward and visual stimuli in one task setting can impact the allocation of attention in other contexts. This resulted in the striking discovery that visual features previously associated with rewards continue to draw attention even when those features are neither relevant nor salient. This value-driven form of attentional capture also provides a useful model for understanding failures of value-based cognitive control, such as in addiction. Dr. Anderson's work has further examined the relationship of value-based attention to dopamine signaling and to the processing of both aversive and rewarding stimuli. Dr. Anderson has had an immense impact of the field, having published over 80 original research articles and 10 review articles, and earning recognitions from the American Psychological Association, the Association for Psychological Science, and the Psychonomic Society. He has mentored many graduate, masters and undergraduate students, postdocs, and postbacs, who themselves have first authored many papers and received many awards. Dr. Anderson's accomplishments illustrate how insights from basic vision science can impact multiple disciplines and translate to the clinic and beyond.
Value-Driven Attention and the Story Behind the Science

Less than 15 years ago, the control of attention was widely held to reflect the joint influence of two underlying mechanisms of prioritization: one goal-directed and the other stimulus-driven. Now, there is considerable consensus that a third mechanism governing the control of attentional exists that is reducible to neither goal-directed nor stimulus-driven influences, which has come to be referred to as selection history. Pivotal to this fundamental shift in thinking was the finding that an arbitrary task-irrelevant stimulus less physically salient than the target could come to involuntary capture attention as a function of its reward history. That is, reward learning could directly modify the attentional priority of an otherwise ignored stimulus. This talk will recount how that finding came to be, and how my thinking on the topic has evolved over the years.

Dr. Anderson will speak during the Awards session.
2023 Sponsors

Awards Sponsor

Elsevier/ Vision Research

Elsevier is proud to sponsor the 2023 Young Investigator Award and the VSS 2023 Elsevier/Vision Research Travel Awards.

Elsevier is a global information analytics business that helps institutions and professionals advance healthcare, open science and improve performance for the benefit of humanity.

We help researchers make new discoveries, collaborate with their colleagues, and give them the knowledge they need to find funding.

We help governments and universities evaluate and improve their research strategies. We help doctors save lives, providing insight for physicians to find the right clinical answers, and we support nurses and other healthcare professionals throughout their careers. Our goal is to expand the boundaries of knowledge for the benefit of humanity.

National Eye Institute

The National Eye Institute (NEI) conducts and supports research, training, health information dissemination, and other programs with respect to blinding eye diseases, visual disorders, mechanisms of visual function, preservation of sight, and the special health problems of individuals who are visually impaired or blind. Vision research is supported by the NEI through research grants and training awards made to scientists at more than 250 medical centers, hospitals, universities, and other institutions across the country and around the world. The NEI also conducts laboratory and patient-oriented research at its own facilities located on the NIH campus in Bethesda, Maryland.

Level 1 Corporate Member

Apple

Gold Sponsor

VPixx Technologies

VPixx Technologies welcomes the vision science community to VSS 2023.

Over the past 22 years, VPixx has become known for our innovative hardware for vision research. The PROPixx DLP LED video projector, supporting refresh rates up to 1440Hz, has become the standard for neuroimaging,
neurophysiology, and behavioral vision research applications. The TRACKPixx3 2kHz binocular eye tracker and the DATAPixx3 I/O hub offer microsecond-precise data acquisition synchronized to stimulus presentation. Our new LabMaestro software is now making these instruments even easier to use!

Visit our booth to see demonstrations of our LabMaestro suite of psychophysics software. LabMaestro Builder is your intuitive GUI application for designing and running psychophysics experiments in your lab. LabMaestro Pack&Go is your solution for quickly running psychophysics experiments on remote subject populations. LabMaestro Simulator emulates VPixx hardware, allowing you to develop and test experiment protocols in the absence of your physical instruments. Visit our booth to discuss your research with our Staff Scientists!

Peter April, Jean-Francois Hamelin, Sophie Kenny, and Jonathan Tong wish you well.

Silver Sponsors
Exponent
Exponent is a leading scientific and engineering consulting firm. Our multidisciplinary organization of brings together more than 90 technical disciplines to address complicated issues facing industry and government today. Among myriad other specialized services, we provide user experience and human factors support across the entire product lifecycle informed by five decades of experience in failure analysis. We are always looking for qualified PhDs, postdocs, and early-career faculty interested in technical consulting.

SR Research Ltd
SR Research produces the EyeLink family of high-speed eye trackers and has been enabling scientists to perform cutting-edge research since the early 1990s. EyeLink systems are renowned for their outstanding technical specifications, temporal precision, and superb accuracy. The EyeLink 1000 Plus has the world's lowest spatial noise and can be used in the laboratory and in EEG/MEG/MRI environments. The EyeLink Portable Duo offers the same high levels of data quality in a small, portable package. SR Research also provides sophisticated experiment delivery and analysis software, and a truly legendary support service.

Bronze Sponsors
Brain Vision LLC
Brain Vision LLC is the leading team for EEG in Vision Science. We offer full integration of EEG with many leading eye-tracking and video systems we also provide flexible and robust solutions for both stationary and mobile EEG. All of our systems are available with a variety of electrode types such as saline-sponge nets, active gel, passive, and dry electrodes, which are easily expandable with bio-sensors like GSR, ECG, Respiration, and EMG. Our team is specialized in using EEG with other modalities such as fMRI, fNIRS, MEG, TMS, and tDCS/HdDCS.

If you want to know how EEG and Vision Science improve each other, please feel free to contact us:
Phone: +1.877.EEG 4 MRI
Email: info@brainvision.com

Cambridge Research Systems
At Cambridge Research Systems, our reputation is founded on values of scientific rigour and integrity. For over 30 years, our unique range of Tools for Vision Science, Functional Imaging and Clinical Research has been ubiquitous in laboratories throughout the world, and cited in thousands of papers.

We design and develop innovative new tools that enable the advancement of science by combining engineering expertise with innovation, cutting edge technology, and ongoing collaboration with our valued academic partners. Our products are market leaders, our people committed and knowledgeable. Our ambition is to continue setting standards in the vision science community, of which we are proud to be a part.

We look forward to seeing you again at VSS! Please call at our booth to see our latest products for visual stimulation, eye tracking, vision assessment, and MRI; or contact enquiries@crsltd.com.

C. Light Technologies
C. Light Technologies, is a neuro-tech and AI company whose mission is to create a scanning laser ophthalmoscope (SLO) technology and eye tracking software to objectively measure eye motion via the retina. We are on the mission to create novel technology to enhance the quality of life for people with neurodegenerative disorders via the eye-brain connection.

The Retitrack™ is an Eye Movement Monitor. It is intended for recording, viewing, measuring, and analyzing temporal characteristics of fixation and saccadic responses when viewing a visual stimulus.

NIRx Medical Technologies
NIRx Medical Technologies, LLC is a globally recognized leader in providing comprehensive solutions for functional near-infrared spectroscopy (fNIRS) research. The versatility of fNIRS has seen a significant increase in its application in vision science. The technique allows for the measurement of neural activity in the visual cortex and large-scale cortical networks and is useful in investigating the neural mechanisms underlying visual attention and perception. Additionally, fNIRS is employed in studying the effects of visual deprivation or visual training. Its non-invasive and user- and subject-friendly nature makes it an ideal tool for monitoring changes in neural activity during the development of the visual system in infants and children. Furthermore, it is increasingly used in researching changes in neural activity related to visual disorders and the changes resulting from treatment.

NIRx offers a complete range of research solutions, including a versatile multimodal hardware platform, advanced online and offline analysis software, expert technical and scientific support, and comprehensive
training programs.

We are committed to supporting fNIRS researchers through our offices in Orlando, New York and Berlin, Germany. For further details on our solutions, please do not hesitate to contact us at +49 308 1453 5990 (EU), (+1) 321-352-7570 (US/Canada), or come and visit our booth at the VSS meeting.

Open Science Tools

Open Science Tools created and maintains PsychoPy, PsychoJS and Pavlovia. These tools are designed to make it as easy as possible to create high-precision experiments for lab-based or online studies, even running vision-science experiments and providing gamma-correction in browser-based studies. Stop by the booth to find out what’s now possible – you might be surprised!

PsychoPy and PsychoJS are unusual in being open-source tools that are supported by a revenue stream, from our hosting and consultancy services, which means the tools are developed and supported by a full-time professional team. The best of both worlds!

We now also provide consultancy services, either to help generate your studies, or to provide training for your department or team. If you don't have time to write that next experiment, or to port your code over from SomeOtherPackage, but you do have some left over funding, then get in touch on consultancy@opensciencetools.org

Psychology Software Tools

Psychology Software Tools – Developers of E-Prime 3.0 stimulus presentation software. E-Prime 3.0 now includes E-Prime Go for remote data collection! Integrate E-Prime with eye tracking and EEG with E-Prime Extensions for Tobii Pro, EyeLink, Net Station, and Brain Products. Use Chronos for millisecond-accurate responses, sound output, and triggers to external devices. Chronos Adapters provide a simple connection to external devices, including Brain Products, ANT Neuro, BIOPAC, BioSemi, Neuroscan, MagstimEGI, NIRx, g.tec, Smart Eye and more. PST also provides solutions for fMRI research, such as Fiber Optic and Wireless Response Systems, Digital Projection System, and an MRI Simulator with head motion tracking. PST has a 35-year company history with 100,000+ users in 75 countries!

Psychonomic Society

The Psychonomic Society is a community of over 4,300 cognitive and experimental psychologists from more than 60 countries around the world. Members include some of the most distinguished researchers in the field. Many are concerned with the application of psychology to health, technology, and education. What brings us together is that we study the basic, fundamental properties of how the mind works by using behavioral techniques to better understand mental functioning.
Our most innovative research uses converging methods from behavioral measurement, neuroscience, computational modeling and other fields to achieve our research goals. Members of the Society conduct research on questions concerning memory, learning, problem solving, decision making, language, attention, and perception. We also connect with research in biology, chemistry, statistics, computer science, medicine, law, and business.

We achieve our objectives by hosting meetings around the world, publishing seven world-class, peer-reviewed journals, disseminating our research, and funding workshops and symposia.

Visit us online and Become a Member.

Rogue Research Inc.

**Rogue Research** has been your partner in neuroscience research for over 20 years. As developers of the Brainsight® family of neuronavigation systems for non-invasive brain stimulation, we have helped make transcranial magnetic stimulation more accurate and more reproducible while keeping it simple and effective. 20 years and over 1000 laboratories later, Brainsight® continues to evolve to meet the needs in non-invasive brain stimulation.

Rogue Research has expanded beyond navigation to develop our own, next-generation, TMS device: Elevate™ TMS. Elevate™ TMS offers control over the pulse shape to ensure more reproducible excitatory or inhibitory effects on the targeted network. While Brainsight® ensures accurate targeting and Elevate™ TMS ensures reliable circuit interaction, Rogue Research is also developing a robotic positioner to ensure that the plan is accurately and efficiently carried out. The unique design ensures accuracy, repeatability and simplicity.

Rogue Research also offers our Brainsight® Vet line of neurosurgical and neuronavigation tools for animal research. Come see our navigated microsurgical robot, which is the most accurate animal stereotaxic system on the market. We also offer custom MRI compatible implants and a line of MRI coils and testing platforms.

**WorldViz VR**

For 20 years, **WorldViz VR** has helped over 1500 universities, businesses and government organizations to conduct leading edge research with Virtual Reality.

Over the years, WorldViz VR has developed **Vizard**, a python-based platform that enables users to rapidly build 3D virtual reality applications that solve real world business and research challenges.

WorldViz will present **SightLab VR**, a fully GUI based tool that allows users to collect, review and analyze eye tracking data with support for all the major PC based VR eye tracking devices including HP Reverb Omniecept, Vive Pro Eye, Pupil Labs and Tobii VR. It will allow drag and drop adding of videos and 3D models, and many of the most used analytics methods are included into the provided templates.

Build a scene, run your experiment and review in minutes. Fully expandable and modifiable by using the GUI configurator or python code.
The WorldViz components allow integration of highly targeted VR labs, and we are happy to help customers configure their own labs, tailored to their specific needs.

Zeto, Inc.

Zeto, Inc. is a privately held medical technology company located in Santa Clara, CA focused on transforming the way electroencephalography is done in clinical and research settings. Zeto's revolutionary FDA-cleared EEG platform brings the traditional EEG procedure to the 21st century by offering the WR19, a zero-prep, wireless, easy-to-wear headset with active, dry electrodes that can be positioned as per the 10-20 system.

The Zeto headset is backed by a cloud data and software platform, a real-time LSL-based API, and a TTL-based trigger device for ERP studies.

The company plans to leverage its platform technology to improve access and quality to medical EEG testing and to enable and improve adjacent biomedical research and clinical trials.

Learn more about our research platform: https://zeto-inc.com/academic-discount/

Contact us: research@zetoinc.com
Graphics Competition Winners

Each year, VSS solicits its membership to submit creative visual images related to the field of vision science, the Society, or the VSS meeting. There are two competitions, Website Banner Competition and the T-Shirt Design Competition. Winning graphic images are featured on the program, abstracts book, signage, and t-shirts.

The Vision Sciences Society is pleased to recognize Karissa Payne and Evi Hendrikx, as the winners of the 2023 Graphics Competition.

Website Banner Competition

Winner: Karissa Payne, Kansas State University

This design takes inspiration from the technologies and statistical methods we use every day to make our science happen. The VSS logo is depicted as the pupil within an eye shape constructed with angled lines, making a camera aperture shape for the iris. The background design takes inspiration from the statistical models we create to explore connections in our data. Dots and lines indicative of parameters and weightings are remixed, creating an abstract pattern evocative of the complex nature of the elements we study.

T-Shirt Design Competition

Winner: Evi Hendrikx, Utrecht University

T-shirt Back and Chest Images

This year’s t-shirt design uses the letters of VSS to create the contours of illustrations. The front image is an eye, to make the explicit link to the topic of the conference: vision science. The back image combines the letters of VSS with the numbers of 2023 to mimic VSS’ beautiful setting, with a wink to the eye on the front. This image also playfully demonstrates the interaction between bottom-up and top-down processing in visual perception: as soon as you spot the dolphin, you will continue to see it!
2023 Annual Business Meeting

*Tuesday, May 23, 2023, 12:30 – 1:00 pm, Talk Room 2*

We encourage you to join the VSS Board of Directors for the Annual Business Meeting. During this meeting, the VSS leadership will provide an overview of the Society, including the outlook and priorities for next year's meeting.

The Business Meeting is an opportunity for VSS members to ask questions of the VSS Board of Directors and bring up issues of concern to the general membership.

You may send questions before the start of the Business Meeting to vss@visionsciences.org.
Inclusivity Roundtables

Saturday, May 20, 2023, 12:45 – 2:15 pm, Jasmine/Palm

The VSS conference brings together vision scientists from all over the globe with diverse life experiences, including many who have overcome or continue to face significant challenges to participating in vision science. This event will provide an opportunity to gather with those who share your background and life experiences, as well as meet and share stories with those who have followed different paths. Last year at this event we connected with Equality Florida, and discussions among event participants led to grassroots efforts, including this year’s scientific symposium, “Critical Perspectives On Vision Science”. Participants will have the opportunity to join in roundtable discussions. VSS wants to hear about challenges our members may have faced or may continue to face. We want to hear ideas from the membership about how VSS can better serve its diverse community, and increase the participation and improve the experiences of those from groups that have been historically underrepresented in our field.

All are invited to attend. Stop by, meet new people, and chat with a member of the board.

Refreshments and a light lunch will be available.
Accessibility event: How to make accessible scientific presentations

*Sunday, May 21, 2023, 1:00 – 2:00 pm, Blue Heron*

**Organizers:** Doug Addleman, Dartmouth College; Rebecca Hornsey, York University; Takuma Morimoto, University of Giessen

**Moderator:** Takuma Morimoto, University of Giessen

**Speakers:** Jordi Asher, University of Essex (in-person); Yueh-Hsun (Walter) Wu, University of Minnesota, Twin Cities (virtual)

Conference presentations are the primary way researchers communicate their new work to other members of the scientific community. To promote effective communication between presenters and their audience, it is important to consider accessibility when preparing conference presentations. The VSS Student-Postdoc Advisory Committee is excited to announce an accessibility event that will focus on two main topics: (1) how we can enhance the accessibility of scientific presentations for individuals with visual impairments, and (2) methods for improving conference accessibility for attendees with visual impairments.

The event will start with introductory presentations from vision scientists with expertise in visual accessibility, followed by group discussions with the audience to consider actions that individual researchers can take to make presentations and conferences more accessible. The event will conclude with a general discussion where people can share their thoughts with all attendees. Our goal for this event is to expand our knowledge on accessibility and inclusivity, with a focus not only on the immediate benefits for visually impaired scientists but also on ways to enhance the accessibility of the overall VSS experience for everyone. The event is open to any VSS attendee.

**Jordi M Asher**  
*University of Essex*

**Jordi M Asher**, is a Lecturer at the University of Essex. Her research to date has focussed on understanding the potential of plasticity in the brain and training strategies to help people recover impaired visual fields. She is currently in the process of building and testing an assistive technology for visual field loss.

**Walter Wu**  
*University of Minnesota, Twin Cities*

**Walter Wu**, got his Ph.D. in psychology with a translational sensory science minor at the University of Minnesota. Starting in the fall, he will work at the College of Optometry at The Ohio State University as a provost’s fellow. Walter is also one of the founding members of the International Network of Researchers with Vision Impairment and their Allies (INova). Walter’s research focuses on different topics related to the impact of impaired vision on daily activities and the usage of assistive technologies in people with low vision.
Takuma Morimoto
University of Giessen

Takuma Morimoto is currently a postdoctoral fellow at University of Giessen. His research aims to understand mechanisms underpinning stable visual percepts of material properties, such as color and gloss, across vastly different lighting environments. Takuma joined the Student-Postdoc Advisory Committee to help make VSS an even more diverse and inclusive community. He is especially keen to support students and early career researchers with non-traditional pathways to research using his experiences as a first-generation student.
Workshop for PhD Students and Postdocs

Strategies for Funding your Research Ideas Around the Globe

Saturday, May 20, 2023, 12:45 – 2:15 pm, Sabal/Sawgrass

Moderator: Krystel Huxlin, University of Rochester, USA

Panelists: Reuben Rideaux, University of Sydney; Martin Rolfs, Humboldt-Universität zu Berlin; Miriam Spering, University of British Columbia

Success in obtaining grant funding for your research ideas is a hallmark of success in academia, and increasingly, in private industry. This workshop features panelists who will provide perspectives on strategies to attain funding success. Topics will include: what constitutes a fundable research idea, opportunities and strategies for developing grantsmanship as a graduate student or postdoc – including those pertinent to diversity, how granting opportunities differ in different countries, how grants are evaluated by granting agencies, and best practices for reacting and responding to grant evaluations in a manner that ultimately leads to funding success.

Reuben Rideaux

University of Sydney

Reuben Rideaux is an ARC DECRA Fellow at the University of Sydney, and an Honorary Senior Research Fellow at the Queensland Brain Institute. Prior to this, he was a Leverhulme Early Career Fellow at the University of Cambridge and a PhD student at the Australian National University. He combines computational modelling, neuroimaging, and psychophysics to study perception and cognition. He has a particular interest in developing new methods for understanding brain function, such as bio-inspired explainable AI, high resolution functional MR spectroscopy, and neural decoding. He leads the ECR subcommittee of the Australian Cognitive Neuroscience Society, and regularly speaks about his work to research groups, clinicians, and the media. In addition to supervision of graduate and postgraduate students, he enjoys participating in public outreach activities aimed at communicating the importance sensory and cognitive neuroscience research to the public, e.g., Cambridge BrainFest, and encouraging school students consider a career in neuroscience research, e.g., BrainBee.

Martin Rolfs

Humboldt-Universität zu Berlin

Martin Rolfs heads the Active Perception and Cognition lab at the Department of Psychology at Humboldt-Universität zu Berlin. He obtained his PhD from the University of Potsdam in 2007, for which he received the Heinz Heckhausen Award, and was a postdoc at Université Paris Descartes and a Marie Curie fellow at New York University and Aix-Marseille Université. In 2012, he established a junior research group at the Bernstein Center for Computational Neuroscience before, he was appointed Heisenberg Professor at Humboldt-Universität zu Berlin in 2018. His research is funded by the German Research foundation (DFG) and the European Research Council (ERC), and he is a core PI at Berlin’s Cluster of Excellence Science of Intelligence.
Miriam Spering

University of British Columbia

Miriam Spering is Associate Professor in Ophthalmology & Visual Sciences at the University of British Columbia (UBC). She also is Director of the Graduate Program in Neuroscience and Associate Dean of Graduate and Postdoctoral Education in UBC’s Faculty of Medicine. Before moving to Canada, Spering completed her undergraduate (Univ Heidelberg, Diploma in Psychology) and graduate education (Univ Giessen, PhD in Psychology) in Germany and postdoctoral training in the US (NYU, Psychology & Neuroscience). Spering has a notable record of scientific achievements in the vision sciences, with a research focus on eye movements, perception-action interrelations, multisensory integration, and disorders of the sensorimotor system. The recipient of many awards for research and mentorship, she has broad experience in senior academic and research leadership roles, advancing graduate training, interdisciplinarity, and wellbeing, equity, diversity, and inclusivity. Spering is funded by several of the major Canadian funding agencies, and has extensive experience mentoring students to obtain their own fellowship and grant funding.

Krystel Huxlin

University of Rochester

Krystel Huxlin is the James V. Aquavella Professor of Ophthalmology and Associate Chair for Research at the University of Rochester (UR)’s Flaum Eye Institute. She also serves as the Associate Director of UR’s Center for Visual Science and co-Director of its Training program. She is a member of the Neuroscience Graduate Program Executive Committee, and an Ombudsperson for graduate students and postdocs at the UR Medical Center. Huxlin earned her bachelors (1991) and doctorate (1994) degrees in Neuroscience at the University of Sydney, Australia. She was an Australian NHMRC C.J. Martin postdoctoral fellow at UR before joining its Ophthalmology faculty (1999). Her work seeks to understand how visual functions can be restored after damage to the visual system, as well as to characterize the properties of, and mechanisms underlying different forms of vision restoration. She holds 10 patents, was the inaugural President of the Rochester SFN Chapter, is an editor at eLife and Journal of Vision, and a member of the VSS Board of Directors.
Career Transitions Workshop, Part 1: Early Career Panel

*Sunday, May 21, 2023, 7:30–8:30 pm, Jasmine/Palm*

**Organized by:** VSS Student-Postdoc Advisory Committee (SPC)

**Organizers:** Claudia Damiano, KU Leuven; Stephanie Shields, The University of Texas at Austin; Maruti V Mishra, University of Richmond

**Moderator:** Claudia Damiano, KU Leuven

**Panelists:** Angelica Godinez, Humboldt Universität zu Berlin; Sabrina Hansmann-Roth, University of Iceland; Madhu Mahadevan, Magic Leap; N Apurva Ratan Murty, Massachusetts Institute of Technology; Alex White, Barnard College

Career transitions are both exciting and scary. Some of the uncertainty regarding a new role, however, can be reduced by talking to others who have made similar transitions. This year VSS-SPC and FoVea together present a two-part ‘Career Transitions Workshop’ on navigating these diverse pathways, with Part 1: Early Career Panel and Part 2: Where do I go from here? Round-Table Discussion.

Part 1 will feature a panel discussion on early career transitions, from the undergraduate level up through securing faculty positions and jobs outside of academia. A panel of vision scientists with a variety of chosen career paths will discuss their stories, the transitions they've gone through in their careers, and how they made the key decisions that led them to their current jobs. After each panelist gives an overview of their story, audience members will be invited to participate in a question-and-answer session with the panel. The panel will include representatives from both academia and industry, so attendees will hear firsthand perspectives both on navigating academia and on transitioning between academia and industry. Especially given the recent layoffs in industry and the pandemic’s lasting impact on hiring in higher education, we hope the panel will provide useful insights into current trends affecting early career researchers and ideas for how trainees can increase their chances of success in today’s professional landscape.

Following this panel discussion, participants will be invited to attend Part 2 of the Career Transitions Workshop, where they can take part in small group discussions and enjoy light snacks and drinks.

Note: All are welcome to attend both parts of this workshop, to only attend Part 1, or to only attend Part 2.

**Angelica Godinez**

*Postdoctoral Researcher, Humboldt Universität zu Berlin*

Angie, is a vision scientist and postdoctoral researcher working in Martin Rolfs’ Active perception and Cognition lab at Humboldt-Universität zu Berlin and in the German Excellence cluster Science of Intelligence. As part of the cluster, her research is aimed at understanding visual processing for perception and action as an attempt to improve current models of perceptual processing and contribute insights to AI and robotics. Prior to her postdoc, Angie received a BS in Psychology and MS in Human Factors and Ergonomics from San Jose State University. During this time, she worked in the Visuomotor Control Lab at NASA Ames Research Center where she conducted low-level vision research (i.e., eye-movement responses to changes in stimulus contrast and luminance) and applied research on the physiological changes due to vibration and
acceleration. For her PhD in vision science at the University of California, Berkeley, she worked with Dennis M. Levi on the impact, recovery and possible adaptations of poor binocular vision. While at Berkeley, she completed an internship at NVIDIA where she applied her knowledge of visual processing to gaze-contingent rendering in an attempt to reduce bandwidth and increase rendering speed in computer graphics.

Sabrina Hansmann-Roth  
*Assistant Professor, University of Iceland*

Sabrina Hansmann-Roth, is an Assistant Professor at the University of Iceland and a Co-PI of the Icelandic Vision Lab. She obtained her PhD from Université Paris Descartes followed by postdoctoral positions at the University of Iceland and the University of Lille. She is interested in the mechanisms used to represent information in visual memory. For that, she investigates probabilistic representations of visual ensembles, visual priming and perceptual biases such as serial dependence. She was a former member of the VSS Student-Postdoctoral Advisory Committee and looking forward to this year’s career transitions workshop, sharing her experiences and discussing with ECRs and the other panelists.

Madhu Mahadevan  
*Research Scientist, Magic Leap*

Dr. Madhu Mahadevan is a vision research scientist at Magic Leap, Inc. She started her career as a clinical optometrist in India with a primary focus on low vision eye care and contact lens management. She then completed her PhD working with Dr. Scott Stevenson on visual attention and eye movements from the University of Houston, College of Optometry, TX. During her doctoral program, she was a research intern at Nvidia, Santa Clara, CA working on auto calibration of eye trackers in virtual reality headsets. After graduation, she joined as a user experience researcher at Human Interfaces, Austin, TX where she used product research methods to help multiple stakeholders interested in enhancing user experience across consumer and enterprise products. She is currently working at Magic Leap, Inc on their augmented reality headset where she uses applied vision concepts and optometric principles in conjunction with product research methods to evaluate design decisions and make optimal choices to help users have a comfortable viewing experience.

N Apurva Ratan Murty  
*Research Scientist, Massachusetts Institute of Technology*

Ratan received his PhD in Neuroscience from the Center for Neuroscience, Indian Institute of Science, Bangalore. His PhD research with Prof. S.P. Arun elucidated the computational mechanisms underlying viewpoint invariant representations in the monkey inferotemporal cortex. He is currently a NIH K99/R00 Pathway to Independence fellow and Research Scientist at MIT with Profs. Nancy Kanwisher and Jim DiCarlo. In his current research, he uses methods from cognitive neuroscience, human neuroimaging, electrophysiology, and artificial intelligence, to investigate the development and cortical organization of human visual intelligence.

Alex White
**Assistant Professor, Barnard College**

Alex White has been studying vision since he first attended VSS as an undergraduate in 2006. He is particularly interested in visual word recognition, selective attention, eye movements, and awareness. He got his PhD working with Dr. Marisa Carrasco at NYU in 2013. After a meandering but fruitful postdoctoral journey, he started a faculty position at Barnard College in 2021. An NIH K99/R00 award facilitated that transition. For more information on his current research, see his lab website. Alex also co-organizes the Visibility events at this conference.

**Claudia Damiano**

*Postdoctoral Researcher, KU Leuven*

Claudia Damiano holds a PhD from the University of Toronto (2019) and is currently a Marie Skłodowska-Curie postdoctoral fellow at the University of Leuven (KU Leuven) in Belgium, specializing in scene perception and visual aesthetics. Broadly, her research aims to understand how visual features impact aesthetic preferences and guide attention. In her current project, she explores the cognitive and emotional benefits of interacting with nature using eye-tracking and virtual reality techniques. Her work contributes to our understanding of the relationship between human perception and the appreciation of natural environments. Claudia has served as a panelist on similar early-career panels, offering advice to Master’s and PhD students about transitioning to a postdoc position. As a moderator, she will ensure that the panel offers valuable insights and actionable advice to attendees.
Career Transitions Workshop, Part 2: Where do I go from here? Round Table Discussion

*Sunday, May 21, 2023, 8:45 – 9:45 pm, Garden Courtyard*

**Sponsored by:** Females of Vision et al (FoVea)

**Organizers:** Charisse B. Pickron, University of Minnesota & Diane Beck, University of Illinois

Career transitions are both exciting and scary. Some of the uncertainty regarding a new role, however, can be reduced by talking to others who have made similar transitions. This year VSS-SPC and FoVea together present a two-part ‘Career Transitions Workshop’ on navigating these diverse pathways, with Part 1: Early Career Panel and Part 2: Where do I go from here? Round-Table Discussion.

Following Part 1, Career Transition Workshop Part 2 will feature a round table discussion with small, facilitator-led groups that cover transition topics for those in early stages (e.g., students/Postdocs) through advanced career stages (e.g., associate/emeritus). We will start the event with introductions from facilitators who have experienced various career transitions including those from Part 1. Some of the transitions Part 2 will cover include: graduate student & postdoc transitions, academia to industry, academia to government/policy/non-profit, and changing institutions, with a particular interest on issues relevant to women and gender-diverse individuals. Participants will have time to choose 1 to 2 discussion groups to join throughout the workshop. Light snacks and drinks will be served during the workshop.

*It is not necessary to have attended Part 1 to attend Part 2, as both are different formats and attendees can benefit from both events depending on the level of interaction and discussion they would like to have.*

FoVea is a group founded to advance the visibility, impact, and success of women in vision science ([www.foveavision.org](http://www.foveavision.org)). We encourage vision scientists of all genders to participate in the workshops.
Connect With Industry

Tuesday, May 23, 2023, 1:15 – 2:30 pm, Blue Heron, Snowy Egret, and Royal Tern

To reflect the range of interests and career goals of VSS attendees, we are pleased to offer our popular ‘Connect with Industry’ event at VSS 2023. This is an opportunity for our members to interact with representatives of industry. Representatives from a range of organizations and industries will be present to discuss opportunities for vision scientists in their companies and to answer questions about collaborating with, and working within, their organizations. No advance sign-up is required.

Representatives from companies including Apple, Brain Vision LLC, Cambridge Research Systems, C. Light Technologies, Exponent, Magic Leap, Meta, NIRx Medical Technologies, Open Science Tools, Vivid Vision, VPixx, and Zeto Inc. will be present to discuss opportunities for vision scientists in their companies and to answer questions about collaborating with and working within, their organizations.

Three 25-minute sessions will be scheduled (1:15– 1:40 pm, 1:40 – 2:05 pm, and 2:05 – 2:30 pm). Drop in for one, or stay for all time slots. Representatives will present an introduction to their company at the start of each session (1:15 pm, 1:40 pm, and 2:05 pm).

No sign-ups are required. Although light snacks will be served, please feel free to bring your brown bag lunch to enjoy during the event.

All VSS attendees are welcome.
Meet the Professors

Monday, May 22, 2023, 3:30 – 5:00 pm, Banyan Breezeway

Students and postdocs are invited to the 8th annual “Meet the Professors” event. This year’s event will follow a similar format to last year’s. There will be up to five, short, 15-minute meetings in small groups. Chat about science, VSS, career issues, work/life balance, or whatever comes up. Or just connect with a new VSS colleague.

Space will be limited and assigned on a first-come, first-served basis. Each student/postdoc will meet with five professors. If you would like to attend Meet the Professors, please complete this Registration Form. Registration will close on April 21, 2023, or when all spaces are filled. See below for this year’s professors.

Members of the VSS Board are indicated with an asterisk* in case you have a specific interest in talking to a member of the board.

Professors and VSS Board Members

David Alais (Professor, University of Sydney, Australia) studies multisensory perception as well as bistable perception and awareness using behavioral methods.

Brian Anderson (Associate Professor, Texas A&M University) studies how the control of attention is influenced by learning, using behavioral and cognitive neuroscience methods. His academic journey began as a part-time community college student.

Ben Balas (Professor, North Dakota State University) studies visual recognition in children and adults, with an emphasis on the role of experience in shaping face and texture recognition. He uses behavioral and computational methods and also uses EEG and eye-tracking in his research.

David Brainard (Professor of Psychology, University of Pennsylvania) studies color vision, using psychophysical, physiological, and computational methods. He also has interests in physiological optics, retinal processing, and the role of melanopsin-mediated signals in visual processing.

Johannes Burge (Associate Professor of Psychology, Univ. of Pennsylvania) studies vision with natural images, focusing i) on tasks in optics, depth, motion perception, and ii) on how sensory, perceptual, and motor processing unfolds over time. He uses perceptual phenomena like illusions, and an array of tools—forced-choice and continuous psychophysics, image-computable ideal observers, and other modeling techniques—to understand how human vision works and how artificial vision systems should be designed to work. He interned at Adobe Inc. but didn't like it much.

Marisa Carrasco (Julius Silver Professor of Psychology and Neural Science, NYU) investigates several aspects of visual perception and attention using human psychophysics, neuroimaging, neurostimulation, and computational modeling to study the relation between the psychological and neural mechanisms involved in these processes.

Monica Castelhano (Professor, Queen's University) studies how context and real-world knowledge affects perceptual processes, memory and attention and visual search. In her research, she uses a variety of methodologies including EEG, eye movements and virtual reality to examine behavior in virtual environments.

Sang Chul Chong (Professor, Yonsei University) studies ensemble perception, visual awareness, and attention, using psychophysics and eye tracking.
**Miguel Eckstein** (Professor, University of California, Santa Barbara) studies attention, search, eye movements, learning, face and medical image perception using psychophysics, computational modeling, and EEG/fMRI techniques. He worked at Cedars Sinai Medical Center and NASA Ames before joining UC Santa Barbara. Messi fanatic.

**James Elder** (Professor and York Research Chair in Human and Computer Vision and Co-Director of the Centre for AI & Society at York University). His research seeks to improve machine vision systems through a better understanding of visual processing in biological systems. He has worked at Nortel and NEC Research and is co-founder of the AI start-up AttentiveVision.

**Marc Ernst** (Head of Applied Cognitive Psychology, Ulm, Germany) has a background in Physics and Cognitive Science. He worked at the Max Planck Institute for Biological Cybernetics, UC Berkeley, and at Bielefeld and Ulm University. His research interests are in multisensory perception and action (vision, touch, audition, vestibular, navigation, grasping), perceptual-motor learning, Human-Machine Interaction, and VR. Studies use both behavioral and computational modeling methods.

**Debbie Giaschi** (Professor, Department of Ophthalmology and Visual Sciences, University of British Columbia) studies motion perception, binocular vision and reading in children and adults using psychophysics and MRI techniques. She is particularly interested in atypical development due to amblyopia or dyslexia.

**Todd Horowitz** (Program Director, Basic Biobehavioral & Psychological Sciences, NCI) is a cognitive psychologist, with a B.S. from Michigan State University (1990) and a Ph.D. from the University of California, Berkeley (1995). From 1995 to 2012, he worked at Brigham and Women's Hospital and Harvard Medical School. He started as a post-doc with Jeremy Wolfe and then in 2000 was promoted to the faculty. He spent 12 years as a soft-money Principal Investigator before moving to the National Cancer Institute, where he is now a Program Director (i.e., program officer) in the Division Cancer Control and Population Sciences. He has published more than 80 peer-reviewed research papers. Currently, he is working to engage cognitive psychologists and vision scientists with problems in cancer control, such as improving medical image interpretation, studying the cognitive effects of cancer and cancer treatments, and improving the effectiveness of visual health communications.

**Kendrick Kay** (Assistant Professor, University of Minnesota)'s research interests lie at the intersection of visual/cognitive neuroscience, functional magnetic resonance imaging methods, and computational neuroscience. His lab combines expertise across different disciplines, including psychology, neuroscience, neuroimaging, statistics, machine learning, and software engineering.

**Michael Landy** (Professor of Psychology and Neural Science, NYU) has studied a wide range of topics, including depth perception, sensory cue integration, spatial vision including texture perception, perceptual decision-making, Bayesian models of all of the above, cortical adaptation and metacognition for both perceptual and motor tasks.

**Sam Ling** (Associate Professor, Boston University) uses psychophysics and brain imaging techniques to investigate the neural mechanisms that support basic vision, as well as to understand how early visual processes change in response to top-down signals, such as attention, learning, arousal and memory.

**Rob McPeek** (Professor, SUNY College of Optometry) studies eye movements, attention, and visual search in humans and monkeys, using behavioral and neural recording techniques. He formerly worked at The Smith-Kettlewell Eye Research Institute.
Mary A. Peterson (Professor of Psychology and Director of the Cognitive Science Program, University of Arizona) uses behavioral experiments, neuroimaging, and patient work to examine the factors that influence perceptual organization, in particular, the detection of foreground objects against backgrounds. She is a proponent of women in STEM and of interdisciplinarity as exemplified by Cognitive Science.

Pawan Sinha (Professor of Brain & Cognitive Sciences, MIT) studies visual neuroscience, combining experimentation and computational modeling. He majored in computer science in India and then came to the US planning to specialize in high-performance processor design. But, due partly to his interest in visual art, he soon changed his research focus to visual neuroscience. His lab is exploring the development of visual skills in typically developing children, as well as those who have gained sight after suffering several years of congenital visual deprivation. This effort, named Project Prakash, allows the lab to simultaneously pursue the twin goals of scientific discovery as well as societal service.

Viola Störmer (Assist. Prof., Dartmouth College) studies multisensory perception, in particular how sounds affects vision, selective attention, and working memory. Her lab uses a range of techniques to investigate these topics including psychophysics, experimental psychology, and EEG.

Bill Warren (Chancellor’s Professor of Cognitive Science, Brown University) uses virtual reality techniques to investigate the visual control of action, including optic flow, locomotion, collective behavior, and visual navigation. He has had an academic career and collaborated with movement scientists on visual-motor coordination, with biologists on insect flight control, with computer scientists on crowd dynamics, and with safety researchers on emergency evacuation.

Takeo Watanabe (Fred M. Seed Professor of Cognitive, Linguistic & Psychological Sciences at Brown University) takes an interdisciplinary approach to studying vision using psychophysics, fMRI, and computational neural modeling. Research areas include motion perception, interaction of motion and form, attention and perceptual learning.

Yaffa Yeshurun (Professor of Psychology at the University of Haifa) is interested in the interplay between spatial and temporal attention and various aspects of visual perception, including spatial and temporal resolution, internal noise, motion perception, perceived duration, spatial crowding and temporal crowding, relying mainly on behavioral measurements, but also pupillometry and occasionally computational modeling.

**Registration**

Please use our online Meet the Professors [Registration Form](#). Online registration closes on [April 21, 2023](#).
Undergrad Meet & Greet

*Monday, May 22, 2023, 2:30 – 3:30 pm, Banyan/Citrus*

Enjoy free snacks and refreshments while you meet other undergraduates. We'll also have a few graduate student and faculty mentors who will be happy to answer any questions about the conference, career options, or scientific interests.

All are welcome!
You have a great research idea, but you need money to make it happen. You need to write a grant. This workshop will address various funding mechanisms for vision research. Our panelists will discuss their organization's interests and priorities, and give insight into the inner workings of their extramural research programs. There will be time for your questions.

**Todd Horowitz**  
*National Eye Institute (NIH)*

**Todd Horowitz,** is a Program Director in the Behavioral Research Program's (BRP) Basic Biobehavioral and Psychological Sciences Branch (BBPSB), located in the Division of Cancer Control and Population Sciences (DCCPS) at the National Cancer Institute (NCI). Dr. Horowitz earned his doctorate in Cognitive Psychology at the University of California, Berkeley in 1995. Prior to joining NCI, he was Assistant Professor of Ophthalmology at Harvard Medical School and Associate Director of the Visual Attention Laboratory at Brigham and Women's Hospital. He has published more than 70 peer-reviewed research papers in vision science and cognitive psychology. His research interests include attention, perception, medical image interpretation, cancer-related cognitive impairments, sleep, and circadian rhythms.

**Tatiana Pasternak**  
*National Institute of Neurological Disorders and Stroke (NIH)*

**Tatiana Pasternak,** is a Scientific Review Officer at the National Institute of Neurological Disorders and Strokes (NINDS). Since she joined NINDS in 2020, she has been focused on overseeing the review of applications submitted to the BRAIN Initiative, the funding mechanism supported by 10 NIH institutes, including the National Eye Institute. Prior to joining NINDS, she was a tenured Professor of Neuroscience at the University of Rochester with an active research program focused on cortical circuits underlying visual perception and working memory in the primate brain. Throughout her academic career, she has participated in the NIH and NSF peer review, serving as a permanent member on several NIH study sections as well as on many other review panels. As one of the founding members of the Vision Science Society, she has served for several years on its Board of Directors and for two years as its President.
**Betty Tuller**

*National Science Foundation*

**Betty Tuller**, serves as a Director of the Perception, Action and Cognition Program at the National Science Foundation, where she also serves on the management team for programs in Computational Cognition, the Future of Work at the Human-Technology Frontier, the NSF AI Institutes, Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science, and Collaborative Research in Cognitive Neuroscience. Dr. Tuller earned her doctorate from the University of Connecticut in 1980, then completed post-doctoral work at Cornell University Medical Center and NYU Medical Center. Prior to joining NSF, she was Professor of Complex Systems and Brain Sciences and Professor of Psychology at Florida Atlantic University.

**Cheri Wiggs**

*National Eye Institute (NIH)*

**Cheri Wiggs, Ph.D.**, serves as a Program Director at the National Eye Institute (of the National Institutes of Health). She oversees extramural funding through three programs — Perception & Psychophysics, Myopia & Refractive Errors, and Low Vision & Blindness Rehabilitation. She received her PhD from Georgetown University in 1991 and came to the NIH as a researcher in the Laboratory of Brain and Cognition. She made her jump to the administrative side of science in 1998 as a Scientific Review Officer. She currently represents the NEI on several trans-NIH coordinating committees (including BRAIN, Behavioral and Social Sciences Research, Medical Rehabilitation Research) and was appointed to the NEI Director’s Audacious Goals Initiative Working Group.

**Geoffrey Boynton**

*University of Washington*

**Geoffrey Boynton**, is a VSS Board Member and studies visual attention, reading and prosthetic vision. After studying mathematics at U.C. San Diego and U.C. Santa Barbara, Dr. Boynton received a PhD in Psychology and Cognitive Sciences at U.C. Santa Barbara in 1994. After a decade at the Salk Institute in La Jolla, CA, he joined the faculty at the University of Washington. In 2019 led an effort to develop a research MRI facility at the new Center for Human Neuroscience in the Department of Psychology which he now directs. He also teaches courses on visual perception and statistics.
19th Annual Dinner and Demo Night

**Beach BBQ:** Monday, May 22, 2023, 6:00 – 8:00 pm, Beachside Sun Decks, limited seating in Banyan Breezeway

**Demos:** Monday, May 22, 2023, 7:00 – 10:00 pm, Talk Room 1-2

Please join us Monday evening for the 19th Annual VSS Dinner and Demo Night, a spectacular night of imaginative demos solicited from VSS members. The demos highlight the important role of visual displays in vision research and education.

Demos are free to view for all registered VSS attendees and their families and guests. The Beach BBQ is free for attendees, but **YOU MUST WEAR YOUR BADGE** to receive dinner. Guests and family members must purchase a VSS Friends and Family Pass to attend the Beach BBQ. You can register your guests at any time at the VSS Registration Desk, located in the Grand Palm Colonnade. Guest passes may also be purchased at the BBQ event, beginning at 5:45 pm.

*The following demos will be presented from 7:00 to 10:00 pm, in the Island Ballroom and Jacaranda Hall:*

**A potpourri of motion coherence failures and anomalies**
Christopher Tyler, Smith-Kettlewell Eye Research Institute

In a motion potpourri, an alternating ring demo challenges the perceptual motion coherence mechanism with alternating rings of counter-rotating motion and has an anomalous aftereffect. Transparent random-dot motion shows a contrast-increment double-bounce effect. A static triple spiral pattern generates more motion than the Kitaoka static motion demos.

**An Interactive Motion Perception Tool for Kindergarteners (and Vision Scientists)**
Aravind Battaje, Technische Universität Berlin, Martin Rolfs, Humboldt-Universität zu Berlin

Have you ever wondered how early visual motion perception works on a certain visual phenomena? Well, wonder no more! We present an interactive tool that lets you point your phone or laptop camera at things and immediately gain an intuition for it. Our tool extends the spatiotemporal energy model (Adelson & Bergen, 1985; Watson & Ahumada,1985) to 3D (x-y-t) and runs real-time on most modern devices.

**Augmented Reality Simulation of Bionic Vision**
Justin Kasowski, UC Santa Barbara, Bionic Vision Lab

The Bionic Eye. Seemingly science fiction, this concept has become a reality with one commercially available device already having ~300-400 users, and many others in clinical development. Using a virtual reality headset, users can see VSS through a simulated bionic Eye. Presented by the UCSB Bionic Vision Lab.

**Catch me if you can: the unpursuable vortex**
Krischan Koerfer, University of Muenster, Tamara Watson, Western Sydney University, Markus Lappe, University of Muenster

A new class of motion stimuli that mimic non-rigid properties of water and fire. They can be perceived but cannot be pursued. Attempted pursuit lets one experience loss of spatial stability, making the presented vortex jump across each catch-up saccade.

**Change blindness**
Haley Frey, Michigan State University

There are few slow change blindness stimuli for use in systematic studies, so we created some. Here, we demonstrate how effective they are at inducing change blindness!

**Contour Erasure and Filling-in**
Yih-Shiuan Lin, University of Regensburg, Chien-Chung Chen, National Taiwan University, Mark W. Greenlee, University of Regensburg, Stuart Anstis, University of California, San Diego

Here in our demos, you will see several examples of the fascinating contour erasure effect: objects of various shapes and sizes completely disappear into the background or merge together after only a short adaptation period on their contours. We will also demonstrate the application of such effect in our contour adaptation contrast threshold paradigm.

**Create interesting visual displays with OCTA**
Eline Van Geert, KU Leuven

Multi-element displays differ in the number and variety of elements they contain, as well as in how these elements are organized (e.g., based on color, shape, or size, and in rows, columns, or more complex organizations). Which is your favorite? Come play with the OCTA app or Python toolbox (https://doi.org/10.3758/s13428-022-01900-w)!

**Delayed visual feedback**
Jeff Mulligan, Independent contractor

Introducing artificial delays in the visual consequences of a motor action can produce oscillatory behavior. The frequency of oscillation depends both on the externally applied delay, and internal delays (which vary with the type of stimulus). These effects will be demonstrated with a simple manual tracking task.

**Flip tilt illusion — can you see these rings?**
Li Zhaoping, Max Planck Institute for Biological Cybernetics

In flip tilt illusion, the orientation of an item appears perpendicular to its actual orientation in visual periphery. I will demonstrate using some images and explain how this illusion can be understood from mechanisms of the primary visual cortex (V1) and an information bottleneck from V1 to higher visual areas.

**Fun with Birefringent Surfaces and Polarized Light**
Andrew Piotrowski, Chloe Leroy, Howard C. Hughes (Retired), Gideon Paul Caplovitz University of Nevada Reno

What could possibly go wrong?!?

**Going from vision research to art with stimupy**
Lynn Schmittwilken; Joris Vincent, Computational Psychology, Technische Universität Berlin

Visual stimulus design is equally science and art. Our demo is about getting creative with visual stimuli: recreate well-established phenomena, explore parameterizations, or implement your very own stimulus. For this, you will use stimupy - a Python package built exactly for that purpose: to easily create and parameterize visual stimuli.

**High Speed Gaze-Contingent Visual Search**
Kurt Debono, Marcus Johnson, SR-Research
Try to find the target in a visual search array which is continuously being updated based on the location of your gaze. High speed video-based eye tracking combined with a high-speed monitor make for a compelling challenge.

**Interactive virtual and real-world physics games**
Giuliana Bucci-Mansilla, Jason Fischer, Garrett Goldin, Department of Psychological and Brain Sciences, Johns Hopkins University

Come play with blocks! In our interactive physics games, you'll put your prediction skills to the test by keeping a teetering tray balanced as you unload it (extra fun when you compete with a friend) and catching virtual blocks in a real-world box in a mixed reality display.

**It's a colourful world - or is it?**
Katia Ripamonti, Rob Lee, Cambridge Research Systems

We perceive the world around us exquisitely colourful and deeply saturated. In a series of demonstrations based on Tyler (iPerception, 2016), Cohen et al. (PNAS, 2020) and Otten et al. (APS, 2016), we show that peripheral colour awareness may take place even in the absence of a physical correlate.

**Let's test the Polarized contrast threshold**
Payal Sangani, L V Prasad Eye Institute

Macular pigment can be perceived as a Haidinger's Brush, an entoptic phenomena. It just takes a minute or so to screen and differentiate normal and abnormal central vision. It also checks individual's sensitivity level of polarized contrast. It can be used as a Prognostic tool for amblyopia treatment outcome.

**Magnetic Sand Illusion**
Kensuke Shimojo, Harvard-Westlake school, Eiko Shimojo, Caltech, Daw-An Wu, Caltech, Shinsuke Shimojo, Caltech

Move one's hand closer and farther over a dynamic static noise display. The random dots appear as though they are attracted or repelled by the finger, depending on its movement.

**McGurk 2.0 – Effects of orientation and image fidelity on the illusion**
Jonathon Toft-Nielsen, Intelligent Hearing Systems / JÖRVEC Corp, Özcan Özdamar, University of Miami

The McGurk effect is a well know auditory illusion where speech sounds are mis-categorized due to conflicting visual cues from the speaker's face. It is a salient effect that is almost impossible to ignore, but what happens to the effect when the participant doesn't recognize a face as a face?

**Motion Pareidolia**
Nicolas Davidenko, UC Santa Cruz, Allison K. Allen, UC Santa Cruz, Nathan H. Heller, Dartmouth, Matthew T. Jacobs, Queen's University

Motion pareidolia is the perception of coherent motion in stimuli that are completely random. In this demo, you will be primed to see different motion patterns (drifting, rebounding, rotating, expanding, etc.) in randomly refreshing pixel arrays. You will also try to prime yourself, choosing what motion you want to see.

**Out of your body and into a rabbit, or a crab. Virtual reality displays from a different point of view.**
Anwesha Das, Daw-An Wu, Shinsuke Shimojo, Caltech

Using virtual reality goggles to see through a pair of cameras, you can find yourself seeing from an odd point of view, depending on how the cameras are placed. You might have an out-of-body experience, widen your field of view, or see more around the sides of an object.

**Pictorial spacecrafts: the Ames’ glass**

Maarten Wijntjes, Delft University of Technology

In his paper “The illusion of depth from single pictures”, Ames describes nine ways of creating illusory depth, one of which is looking through a cylindrically curved lens. In this demo you can experience Ames’ conjecture yourself but be warned, the effect tends to be idiosyncratic (i.e., does not work for everyone).

**Saccade Sighting Showdown!**

Peter April, Jean-Francois Hamelin, Dr. Sophie Kenny, Dr. Jonathan Tong, VPixx Technologies

The PROPixx 1440Hz projector is being used to study visual processing during saccades. This year we add a game to our demo. We present a word which is only visible during your saccades. The player with the fastest word sighting wins a drink ticket!

**StroboPong**

VSS Staff

Back by popular demand. Strobe lights and ping pong!

**The Audiovisual Rabbit Illusion: Effects of Illusory Contours**

Matilda Cederblad, California Institute of Technology, Noelle R. B. Stiles, University of Southern California, and Caltech, Shinsuke Shimojo, Caltech, Armand R. Tanguay, Jr., University of Southern California, and Caltech

The Audiovisual Rabbit Illusion shows that the presence or absence of a sound in a flash-beep-sequence can create an illusory flash or make a veridical flash invisible. This demonstration compares the original illusion with a version that incorporates illusory contours, indicating that illusory contours can be rapidly integrated with audition.

**The FechDeck: a handtool for exploring psychophysics**

James Ferwerda, Rochester Institute of Technology

The FechDeck is an ordinary deck of playing cards modified to support exploration of psychophysical methods. The deck allows users to conduct threshold experiments using Fechner’s methods of adjustment, limits, and constant stimuli, scaling experiments using Thurstone’s ranking, pair comparison, and category methods, and Stevens’ method of magnitude estimation.

**The UW Virtual Brain ProjectTM: Virtual reality exploration of the visual, auditory, and touch systems**

Melissa Schoenlein, Department of Psychology, Wisconsin Institute for Discovery; University of Wisconsin-Madison, Nathaniel Miller, University of Minnesota Medical School, Chris Racey, Psychology, University of Sussex, Simon Smith, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Ross Treddinick, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Kudirat Alimi, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Chris Castro, College of Engineering, University of Wisconsin-Madison, Bas
Explore the UW Virtual Brain Project – visual, auditory, and touch system lessons in virtual reality or on a desktop display. Each lesson provides an immersive experience of information flow from sensory input to cortical processing. Evidence suggests these experiences are fun and easy to use, which can advance neuroscience education.

The Weak conquer the Strong
Adam Reeves, Northeastern University, Quan Lei, Wichita State University

When mixed with an equal number of less salient (grey) disks, a set of salient (white) disks looks less numerous. The grey disks are unaffected by the white disks. This illusion was already published in JoV and followed up in Frontiers. We will show the original effect with new variations.

Triangles are AMAZING!!!
Tess White, Madalyn Sawatzky, Drew Asborno, Seth Freese, Gideon Caplovitz, University of Nevada, Reno

Triangles aren't usually considered in visual perception, but they have some amazing properties that make them so special! Come explore the wonderful world of triangles with us!

Vision’s Chainsaw
Patrick Cavanagh, Glendon College, Stuart Anstis, UCSD

Moving frames can displace the apparent location of brief flashes presented at the moment the frame changes direction. We use this here to attempt a never before captured dismemberment of the human body. This is a live, so to speak, presentation and we invite observers to step up and be severed. Sorry, served.

Why do rigid objects look non-rigid?
Akihito Maruya, Qasim Zaidi, State University of New York, College of Optometry

Two solid rings rigidly linked at an angle and rolled together are seen as non-rigidly wobbling. Using computer graphics, we show that the perceived non-rigidity depends on speed and ring shape. Using model simulations, we show why the percepts depend on shape-based prior assumptions and properties of motion mechanisms.
Public Lecture – Rowan Candy

Rowan Candy
Professor of Optometry, Vision Science and Neuroscience, Indiana University, Bloomington, Indiana

Seeing through the eyes of a baby

Sunday, May 21, 2023, 1:00 – 2:00 pm, Enoch Davis Center located at 1111 18th Ave South, St. Petersburg, 33705

Have you wondered what a baby can see? Can they see colors? Can they see in 3D? Is their vision blurred? This talk will cover our current understanding of how vision develops during infancy and early childhood and the types of clinical conditions that young children might develop.

Rowan Candy is a clinician scientist who investigates the development of vision. She studies how infants interact with their natural visual environment, in particular asking how well they are able to focus and align their eyes with the goal of preventing common visual disorders. She studied at the University of Wales and UC Berkeley, and is currently a Professor of Optometry, Vision Science and Neuroscience at Indiana University.

About the VSS Public Lecture

The annual public lecture represents the mission and commitment of the Vision Sciences Society to promote progress in understanding vision and its relation to cognition, action and the brain. As scientists we are obliged to communicate the results of our work, not only to our professional colleagues, but also to the broader public. This lecture is part of our effort to give back to the community that supports us.

Attending the VSS Public Lecture

Admission to the Public Lecture is free. The lecture will be held on Sunday, May 21 at 1:00 pm at the Enoch Davis Center located at 1111 18th Ave South, St. Petersburg, 33705.

The Enoch Davis Center is a seven mile drive from the TradeWinds Island Grand Resort (see directions).
Attendee Resources

Abstract Numbering System
Each abstract is assigned a unique 4 or 5-digit number based on when and where it is being presented. Talk presentations are a 4-digit number and Poster presentations are a 5-digit number (the last two digits of a poster are the board number). See Abstract Numbering.

ATM
An ATM is located in the main lobby of the hotel. A second ATM can be found in the lobby of the Breckenridge Building.

Audiovisual Equipment for Talks
LCD projectors are provided in the talk rooms for giving slide presentations. Computers are NOT provided. Presenters must bring their own laptop computers and set them up BEFORE the start of the session in which they are presenting. Please review the Talk Presentation Instructions for more information.

For speakers who cannot bring a laptop, there is a loaner Windows PC laptop available in the talk room. Please make advance arrangements with Jeff Wilson at the VSS Registration Desk.

Baggage Check
Bags can be checked with the Bell Hop in the main lobby.

Business Center
The Business Center is located in the hotel lobby. Computer terminals are available in both the Social Lounge and the Quiet Lounge. A printer is available in the VSS Social Lounge.

Business Meeting
The VSS Business Meeting is Tuesday, May 23, 12:30 – 1:00 pm in Talk Room 2. All VSS members are encouraged to attend. This is your opportunity to hear about VSS, ask questions, and give feedback.

Cashless Property
TradeWinds Island Resorts is now a cashless property with cash no longer accepted for payment throughout the properties. There are “Cash to Card” machines at both Island Grand Beach Resort and RumFish Beach Resort. These machines work as a reverse ATM (without the fees) converting cash to pre-paid debit cards that can be used anywhere. Employee partners are still able to accept cash for gratuities, but they will not be able to make change onsite.

Certificates of Attendance
Certificates of Attendance will be available in your VSS account the last day of the meeting. If you require additional assistance, visit the Registration Desk.

Code of Conduct
The Vision Sciences Society (VSS) is dedicated to the open exchange of ideas and the freedom of thought and expression. We are committed to running a successful meeting that fosters collegiality and celebrates the diversity of the Vision Sciences community. These aims and goals require an environment that recognizes the inherent worth of every person and group, that fosters dignity, understanding, and mutual respect, and that
embraces diversity. To help ensure these goals, each presenter, speaker, and attendee must adhere to the Code of Conduct.

**Contact Us**

If you need to reach VSS meeting personnel while at the meeting, call extension 7814 from a house phone. From outside the hotel, call (727) 367-6461, extension 7814. VSS staff can also be reached by email at vss@visionsciences.org.

**Cyber Lounge**

The Cyber Lounge has merged with the Social Lounge this year. Computer terminals are available in both the Social Lounge and the Quiet Lounge. A printer is available in the Social Lounge.

**Disclaimer**

The Program Committee reserves the right to change the meeting program at any time without notice. Please note that this program was correct at the time of printing.

**Drink Tickets**

Each attendee will receive two “free drink” tickets which may be redeemed at the Opening Night Reception (May 19), Demo Night (May 22), or Club Vision (May 23).

**Exhibits**

All exhibits are located in the Pavilion. See our list of Exhibitors and the Exhibits Floor Plan (*coming soon*).

**Exhibit Hours**

- Saturday, May 20, 8:00 am – 5:30 pm
- Sunday, May 21, 8:00 am – 5:30 pm
- Monday, May 22, 8:00 am – 12:30 pm
- Tuesday, May 23, 8:00 am – 5:30 pm

**Exhibitor Setup and Tear down**

- Setup: Friday, May 19, 4:00 – 7:00 pm and Saturday, May 20, 7:00 – 9:00 am
- Tear down: Tuesday, May 23, 5:30 – 7:30 pm

**Fitness Center**

The RumFish Beach Resort fitness center is open 24/7 with a room key. The Center is available to attendees staying at either of the TradeWinds hotels. The TradeWinds Island Grand fitness center is currently closed.

**Food Service/Catering**

Complimentary coffee and tea, as well as a light continental breakfast is available each morning in the Garden Courtyard and the Pavilion. Coffee, tea, and refreshments will also be served each afternoon between afternoon talk sessions.

Your VSS registration includes a reception and a dinner. The Opening Night Reception is held on Friday night and the Demo Night BBQ dinner is held on Monday night. Both events take place on the beach (weather permitting). Attendees may purchase a Friends & Family Pass, which will allow their guests to attend the food and social events.

Each attendee will be given two “free drink” tickets, good at the Opening Night Reception, Demo Night, and Club
Vision.

The VSS schedule provides a generous two-hour lunch period to take advantage of the beautiful surroundings and amenities of the TradeWinds Island Grand Hotel and the RumFish Beach Resort.

Note: VSS meeting attendees will receive a 10% discount on all food and beverage purchases in ALL TradeWinds Islands Resorts restaurants and bars. You must present your VSS badge to receive the discount.

The 10% discount does not apply to food or drinks at VSS events, such as the Opening Night Reception, Demo Night, or Grab and Go Lunches. Discounted pricing has already been applied to these functions.

**Grab and Go Lunches**

The TradeWinds will offer a selection of reasonably-priced lunch items just for VSS attendees.

Friday – Sunday, Tuesday 11:30 am – 2:30 pm, in the Garden Courtyard
Monday, 11:30 am – 2:30 pm, in the Grand Palm Colonnade

**Friends & Family Pass**

The **Friends & Family Pass** allows your family to enjoy our many fun VSS social events. For $60.00, your travel companion can attend the Opening Night Reception, Demo Night, as well as enjoy all Coffee/Snack Breaks and the Daily Continental Breakfast! Passes are only $60.00 for adult guests and $20.00 for children ages 6 through 12. Children under the age of 6 are free. To purchase a Family & Friends Pass, please visit the VSS Registration Desk onsite.

Passes are required for entrance to all social events and meals, including the Friday evening Welcome Reception and Monday evening Demo Night.

Note: The Friends & Family Pass does not cover entrance to the scientific sessions. For a guest pass to a scientific session, please inquire at the VSS Registration Desk. For more information, please see Guests below.

**Guests**

Guests are allowed complimentary entry into one VSS session to see the poster or talk of the person they are guests of at the meeting.

Guests must register at the VSS Registration Desk upon arrival and must be accompanied by a VSS attendee. Guests must wear their guest badge for entrance into the session they attend.

To attend social functions, including the Opening Night Reception, Demo Night BBQ, Coffee/Snack Breaks and Daily Continental Breakfast, attendees’ guests will need to purchase a **Friends & Family Pass**, available at the VSS Registration Desk.

**Health Protocols**

We strongly encourage attendees to ensure their COVID-19 vaccinations are up to date prior to the meeting. Attendees are strongly encouraged to wear masks indoors. Masks will be available at the VSS Registration Desk. See Health and Safety Protocols.

**Internet Access**

VSS provides free wireless internet access in the meeting areas, guest rooms, and VSS lounges. In the VSS meeting space, connect to **twgroup**; password is **group5500**. In the hotel common areas and sleeping rooms connect to **TW**; password is **guest5500**.
If you did not bring your own computer, a limited number of laptop computers with free internet access are available for your use in both the Quiet and Social Lounges.

**Lost and Found**
The Lost and found is located at the VSS Registration Desk in the Grand Palm Colonnade.

**Lounges**
VSS offers two lounge areas exclusively for meeting attendees:

**Quiet Lounge**
The VSS Quiet Lounge is designed especially for attendees who need a quiet place to read, work, silently meditate, or relax. There are two laptops available. The Quiet Lounge is located in the Glades room in Jacaranda Hall.

**Quiet Lounge Hours:**
Friday – Sunday, 7:30 am – 9:30 pm
Monday, 7:30 am – 12:30 pm
Tuesday, 7:30 am – 9:30 pm
Wednesday, 7:30 am – 12:30 pm

**Social Lounge**
The VSS Social Lounge features comfortable seating for relaxing and visiting with colleagues. There are two laptops and a printer available, as well as phone charging stations. The Social Lounge is located in the Banyan/Citrus room in Jacaranda Hall.

**Social Lounge Hours:**
Friday – Sunday, 7:30 am – 9:30 pm
Monday, 7:30 am – 12:30 pm
Tuesday, 7:30 am – 9:30 pm
Wednesday, 7:30 am – 12:30 pm

**Message Center**
Messages for registrants can be left and retrieved at the VSS Registration Desk. A bulletin board will be available in the Grand Palm Colonnade for announcements and job postings.

**Networking Events**

**Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends**
Friday, 8:30 – 9:30 pm
Garden Courtyard

**Inclusivity Roundtables**
Saturday, 12:45 – 2:15 pm
Jasmine/Palm

**Undergraduate Meet and Greet**
Monday, 2:30 – 3:30 pm
Pirate Island

**Meet the Professors**
Monday, 3:30- 5:00 pm  
Banyan Breezeway  

**Connect with Industry**  
Tuesday, 1:00 – 2:30 pm  
Blue Heron  

**Moderators**  
Please arrive at the meeting room 30 minutes prior to the start of your session to allow time for setup and to check in with your speakers. See Moderator Instructions.  

**Parking**  
Complimentary self-parking is available to all meeting attendees. Access is through the Island Grand guard gate. Valet parking is available at the TradeWinds Grand Island Resort lobby for an additional fee.  

**Phone Charging Station**  
Phone charging stations will be located at the VSS Registration Desk and in the VSS Social Lounge.  

**Photographing/Videotaping Presentations**  
Unless otherwise noted, photographing and videotaping posters and talks is permitted at VSS. Presenters who do NOT wish to be photographed or videotaped should indicate this by displaying our “No videos and photos” image on their poster or the title slide at the beginning of their talk. The image can be downloaded from the VSS website or you can pick up a printed version at the Registration Desk.  

**Poster Sessions**  
All poster sessions are held in Banyan Breezeway and the Pavilion. The last three digits of your poster number indicate the number of your poster board. See Abstract Numbering.  

Posters should be put up at the beginning of a session and taken down at the end. Authors of even numbered posters are expected to be present at their posters during the entire “Even Authors Present” time, and authors of odd numbered posters are expected to be present at their posters during the entire “Odd Authors Present” time. Authors may be present during the entire session, if desired. Abstracts not presented at the meeting during the designated author present time will not be published in the *Journal of Vision*. See Poster Presentation Instructions.  

Please be courteous and take down your poster promptly at the end of the session so that the board is empty when the next presenter arrives to put up their poster.  

Push pins are available for your use and are located in the Banyan Breezeway and Pavilion.  

**Printing**  
Need your poster printed? The local UPS store offers a variety of services.  

**Quiet Lounge**  
See Lounges.  

**Registration**  
The Registration Desk is located in the Grand Palm Colonnade. The Registration Desk is open during the
following times:
Friday, May 19, 8:00 am – 6:00 pm
Saturday, May 20, 7:30 am – 6:45 pm
Sunday, May 21, 7:30 am – 6:45 pm
Monday, May 22, 7:45 am – 1:30 pm
Tuesday, May 23, 7:45 am – 6:45 pm
Wednesday, May 24, 7:45 am – 12:45 pm

Shipping
To ship your poster or other items home from the meeting, ask for the Concierge at the front desk of the TradeWinds Island Grand.

Social Lounge
See Lounges.

Spa Services
The BodyWorks Spa is located at RumFish Beach Resort inside the Loggerhead Building. The Spa is open Daily from 9:00 am – 5:00 pm. For appointments call 727.363.2348 or extension 6019 from your room. Appointments must be made 24 hours in advance.

Speakers
Please arrive at the meeting room 30 minutes prior to the start of your session to allow time for setup and to check your presentation. Please see Talk Presentation Instructions.

Student Events

**Workshop for PhD Students and Postdocs: Strategies for Funding your Research Ideas Around the Globe**
Saturday, 12:45 – 2:15 pm
Sabal/Sawgrass

**Career Transitions Workshop, Part 1: Early Career Panel**
Sunday, 7:30 – 8:30 pm
Jasmine/Palm

**Career Transitions Workshop, Part 2: Where do I go from here? Round Table Discussion**
Sunday, 8:45 – 9:45 pm
Garden Courtyard

**Undergraduate Meet and Greet**
Monday, 2:30- 3:30 pm
Pirate Island

**Meet the Professors**
Monday, 3:30- 5:00 pm
Banyan Breezeway
Code of Conduct

The Vision Sciences Society (VSS) is dedicated to the open exchange of ideas and the freedom of thought and expression. We are committed to running a successful meeting that fosters collegiality and celebrates the diversity of the Vision Sciences community. These aims and goals require an environment that recognizes the inherent worth of every person and group, that fosters dignity, understanding, and mutual respect, and that embraces diversity.

To help ensure these goals, each presenter, speaker, and attendee must adhere to the following code of conduct. The expected behavior extends to all sessions, activities, events, and informal gatherings during the conference and to any other activities, in-person or virtual, sponsored or managed by VSS.

Participants who do not comply may be barred from attending the remainder of the VSS conference or barred from participating in other VSS activities or meetings, in-person or virtual. The home institution or employer may be informed of allegations against or violations by their faculty members, trainees, employees, or affiliates.

General Behavior

Participants are expected to respect one another and behave in a civil fashion. Members should respect common sense rules for public behavior, personal interaction, common courtesy, and respect for all meeting participants.

Anti-Discrimination

VSS prohibits discrimination at its meeting against individuals on the basis of factors such as race, color, sex, sexual orientation, gender identity or expression, age, marital status, religion, national origin, ancestry, socio-economic status, physical appearance, or different abilities.

Anti-Harassment

To promote an environment that recognizes the inherent worth of every person and group, VSS is dedicated to providing its members and meeting attendees a harassment-free experience. Harassment is unwelcome or hostile behavior, including speech that intimidates or interferes with a person's participation or opportunity for participation in a conference, event, or program.

Harassment in any form, including but not limited to, harassment based on national origin, race, religion, sex, gender, or any other status protected by laws in which the conference or program is being held, will not be tolerated. Harassment includes the use of abusive or degrading language or gestures, intimidation, stalking, harassing photography or recording, inappropriate physical contact, and unwelcome sexual attention.

Other Unacceptable Behavior

- Publicly sharing screen shots, photographs, video, or audio recording of oral or poster presentations, slides, or question periods without the consent of presenters and/or contributors.
- Making VSS events and resources available to others outside one's immediate laboratory when membership or registration is required for access. When participating in events, in-person or virtual, attendees must use their own name and not attempt to misrepresent themselves in any way.
- Gaining unauthorized access or making malicious changes to the conference website, conference hosting tools, or any related systems.
- Collecting data without ensuring protocols are in accordance with governing ethical and legal standards.
- Fabrication or misrepresentation of data presented at the conference.
- Inappropriate use of nudity, sexual images, or images that would be reasonably found offensive by the membership.
- Real or implied threat of professional or financial damage or harm.

Violations of code of conduct can be reported to any of the members of the VSS Board of Directors or to Shauney Wilson, the VSS Executive Director and Event Director. Any reports will be handled in the strictest confidence.

Policies have been adapted from other sources including SIGGRAPH and Association for Psychological Sciences.
Canadian Vision Science Social

Sunday, May 21, 2023, 12:30 – 2:30 pm, Sabal/Sawgrass

Organizers: Caitlin Mullin, Vision: Science to Applications (VISTA) York University; Doug Crawford, Vision: Science to Applications (VISTA) York University

Speaker: Doug Crawford, Vision: Science to Applications (VISTA) York University

This social event is open to any VSS member who is, knows, or would like to meet a Canadian Vision Scientist! Join us for casual discussions with students and faculty from several Canadian Institutes or to just satisfy your curiosity as to why we in the North are so polite and good natured, Eh? We particularly encourage trainees and scientists who would like to learn about the various opportunities available through York's Vision: Science to Applications (VISTA) program. So grab your toques and your double-double and come connect with your favourite Canucks. This event will feature free food and refreshments, with a complimentary beverage for the first 100 attendees. This event is sponsored by the York Centre for Vision Research and VISTA, which is funded in part by the Canada First Research Excellence Fund (CFREF).
Opening Night Reception

*Friday, May 19, 2023, 7:00 pm – 9:30 pm, Beachside Decks*

Save Friday evening for the spectacular VSS Opening Night Reception! The reception will take place on the beach and beachside sundecks from 7:00 – 9:30 pm.

Don't forget your drink tickets, which can be found in the back of your badge. Your drink tickets are also good at Demo Night and Club Vision. Friends and family may accompany you with the purchase of a *Friends and Family Pass*. See the Registration Desk to purchase passes.

Prepare to sink your toes into the sand and enjoy this fantastic event! Please remember to wear your badge.
Computational and Mathematical Models in Vision (MODVIS)

*Thursday, May 18, 2023, 9:00 am – 6:00 pm, Blue Heron*
*Friday, May 19, 2023, 9:00 am – 12:00 pm, Blue Heron*

**Organizers:** Marianne Maertens, Technische Universität Berlin; Jeff Mulligan, Freelance Vision Scientist; Zygmunt Pizlo, UC Irvine; Anne B. Sereno, Purdue University; Qasim Zaidi, SUNY College of Optometry

Contributed scientific talks, with coffee service and morning snacks. More information about the workshop, including how to register, can be found at the workshop website [https://www.purdue.edu/conferences/events/modvis/](https://www.purdue.edu/conferences/events/modvis/).
phiVis: Philosophy of Vision Science Workshop

*Tuesday, May 23, 2023, 12:30 – 2:30 pm, Jasmine/Palm*

**Organizers:** Chaz Firestone, Department of Psychological and Brain Sciences, Johns Hopkins University; Kevin Lande, Department of Philosophy & Centre for Vision Research, York University; Jorge Morales, Departments of Psychology and Philosophy, Northeastern University

**Speakers:** Wayne Wu (Carnegie Mellon), with comments from Ruth Rosenholtz (MIT); Madeleine Ransom (University of British Columbia), with comments from Isabel Gauthier (Vanderbilt); Jake Quilty-Dunn (Washington University-St. Louis), with comments from Yaoda Xu (Yale)

The past decade has seen a resurgence in conversation between vision science and philosophy of perception on questions of fundamental interest to both fields, such as: What do we see? What is seeing for? What is seeing? The phiVis workshop is a forum for continuing and expanding this interdisciplinary conversation. Short talks by philosophers of perception that engage with the latest research in vision science will be followed by discussion with a slate of vision scientists.

Conversations between philosophers of vision and vision scientists have enriched research programs in both fields. On the one hand, the latest generation of philosophers of vision are deeply immersed in the scientific literatures on natural scene statistics, visual short-term memory, ensemble perception, contour integration, amodal completion, visual salience, multi-sensory integration, visual adaptation, and much else. On the other hand, vision scientists have found a great deal of value in responding to and thinking together with philosophers about the mechanisms and effects of perceptual constancies, attentional selection, object perception, and perceptual uncertainty, to name just a handful of topics. These conversations are not only intrinsically interesting for everyone involved, they have been fruitful sources of research and collaboration. However, opportunities for dialogue are all too rare, often occurring only through chance interactions or one-off workshops. The phiVis satellite is meant to be a platform to extend these discussions.

For more information, visit: [https://www.phivis.org/](https://www.phivis.org/)
Pre-Data-Collection Poster Session

*Monday, May 22, 2023, 2:00 – 4:00 pm, Jasmine/Palm*

**Organizers:** Sabrina Hansmann-Roth, University of Iceland; Bjoern Joerges, York University; William Ngiam, University of Chicago; Janna Wennberg, University of California

It is customary for conference posters to contain at least preliminary results. However, feedback and suggestions with regards to the experimental design – a major benefit of poster sessions – would be most helpful **before** data collection has started. In hopes of achieving this, we will be hosting a **pre-data collection poster session**.

Receiving feedback at this early stage promotes rigorous and impactful science – researchers can identify confounds, hidden assumptions, or other concerns that would likely be raised by reviewers. This cuts down research waste as suggested changes can be implemented before resources are committed. Researchers may even learn of similar studies and potential issues, helpful resources, or opportunities for collaborations between labs. This mirrors Registered Reports, an Open Science initiative, where peer review of a pre-registration occurs before data is collected.

Interested VSS attendees will be asked to sign up by indicating their research topic and a short (250 word) description of their research idea and preliminary design. Registration for this event will be **just-in-time** (deadline: *May 1*). Those selected will be asked to prepare a conference poster which focuses on the theoretical background of the study and their proposed study methods. There will be a maximum of 40 posters, and spots will be granted on a first come, first serve basis.

We are aware that, under an adversarial, competitive view of academia, this event may place presenters in a vulnerable position – participation publicizes research ideas without allowing them to formally lay claim through a publication. We encourage poster viewers to be mindful, using this event to establish collaboration with presenters and improve science. We will be creating an Open Science Framework Meetings page if presenters wish to upload their pre-data posters, providing a verification and timestamp of their research proposals. However, ultimately if you are worried about getting scooped, presenting your idea at this event might not be the right decision for you.

If you want to present a poster on your proposed research design, you can [**submit your abstract using this Google Form**](#). If you merely want to browse and comment on the posters, no registration is necessary.

**Update May 2nd:** Submissions are still open, but please send us a note (bjoerges@yorku.ca) to make sure that we process your submission promptly.
What's (not) in a name: Guidelines for replicable projector-based vision experiments

Friday, May 19, 2023, 9:00 – 11:30 am, Jasmine/Palm

Organizer: Dr. Sophie Kenny, Staff Scientist at VPixx Technologies

While most vision researchers use flat-panel displays for their experiments, many also use projection systems due to their extensive range of potential applications. Projectors can be a practical solution for environments sensitive to magnetic fields (fMRI, MEG, OPM), produce a wide range of image sizes, and can often implement otherwise impossible research protocols. The flip side of this flexibility is that few projector installations are alike, and this variability has consequences. Choices of model, manufacturer, imaging technology, projection screens, and even the equipment and observer's relative positions can influence the final appearance of stimuli or introduce artifacts. However, published papers rarely include the information that the reader or editor requires to judge whether artifacts are likely to be present and whether they might be significant enough to influence the interpretation of results.

In this educational session, we will present various research applications of projector displays and outline the consequences different choices may have on spatial uniformity, image content, brightness and contrast, stereo crosstalk, and more. Throughout the presentation, we will share guidelines to help researchers navigate the process of installing a new projector-based psychophysics laboratory, characterize current setups, and compare data collected across research laboratories and environments.

To help us plan this event, please send an email to signal your interest to scientist@vpixx.com

VPixx is a privately held company serving the vision research community by developing innovative hardware and software tools for vision scientists (http://www.vpixx.com). For more general educational content, visit the VPixx Online Classroom and Library (VOCAL): www.vpixx.com/vocal
Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends

Friday, May 19, 2023, 8:30 – 9:30 pm, Garden Courtyard

Organizers: Michael Grubb, Trinity College; Alex White, Barnard College

LGBTQ students are disproportionately likely to drop out of science early. Potential causes include the lack of visible role models and the absence of a strong community. This social event is one small step towards filling that gap and will bring awareness to continuing challenges for queer scientists.

Please join us towards the end of the opening night reception, in the Garden Court (located between the Jacaranda building and the Grand Palm Colonade).

All are welcome. Snacks, drinks, and camaraderie will be provided.
Virtual Reality + Eye Tracking for Research

Saturday, May 20, 2023, 12:45 – 2:15 pm, Blue Heron

Organizers: Sado Rabaudi, Product Manager, Solutions Architect, WorldViz; Dan Tinkham, Head Of Sales, Americas, WorldViz

WorldViz VR will give an educational seminar and hands-on demonstration of the latest virtual reality and mixed reality consumer devices with built in eye tracking and will explain how this equipment can be used in a research context. This presentation will include a high level overview of virtual reality and mixed reality key concepts as well as explanations for how to create custom immersive experiments using the latest software, including a demonstration of the SightLab VR Pro drag-and-drop VR + eye tracking toolkit. WorldViz VR will also provide examples of notable publications and successful use cases for virtual reality + eye tracking research across various academic disciplines. Participants will walk away with a better understanding of currently available immersive technology and how they can use it in their own research – they may be surprised how easy it is.
Symposia

Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production

Organizers: Eline Kupers\textsuperscript{1}, Kathryn Graves\textsuperscript{2}, Kimele Persaud\textsuperscript{3}; \textsuperscript{1}Stanford University, \textsuperscript{2}Yale University, \textsuperscript{3}Rutgers University

How does the brain combine generative models and direct discriminative computations for visual inference?

Organizers: Benjamin Peters\textsuperscript{1}, Nikolaus Kriegeskorte\textsuperscript{1}; \textsuperscript{1}Columbia University

The Active Fovea

Organizers: Martina Poletti\textsuperscript{1}, Martin Rolfs\textsuperscript{2}, Jude Mitchell\textsuperscript{1}; \textsuperscript{1}University of Rochester, \textsuperscript{2}Humboldt-Universität

The development of categorical object representations: bridging visual neuroscience and deep learning

Organizers: Marieke Mur\textsuperscript{1}; \textsuperscript{1}Western University

Object representations in the parietal cortex

Organizers: Erez Freud\textsuperscript{1}, Maryam Vaziri Pashkam\textsuperscript{2}, Yaoda Xu\textsuperscript{3}; \textsuperscript{1}York University, \textsuperscript{2}National Institute of Mental Health, \textsuperscript{3}Yale University

Continuous psychophysics

Organizers: Johannes Burge\textsuperscript{1}, Kathryn Bonnen\textsuperscript{2}; \textsuperscript{1}University of Pennsylvania, \textsuperscript{2}Indiana University
Symposia
Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production

Friday, May 19, 2023, 12:00 - 2:00 pm EDT, Talk Room 1
Organizers: Eline Kupers\(^1\), Kathryn Graves\(^2\), Kimele Persaud\(^3\); \(^1\)Stanford University, \(^2\)Yale University, \(^3\)Rutgers University
Presenters: Sholei Croom, Pawan Sinha, Jasmine Kwasa, Joel E Martinez, Vassiki S Chauhan

Discussions around Diversity, Equity, and Inclusion (DEI) have become commonplace in academia and have resulted in new institutional policies to promote the success of underrepresented populations. But how do we, as a vision science community with various subfields, theoretical constructs, and methodologies, address DEI issues in our research? The goal of this symposium is to provide a critical lens to the history of vision science as a knowledge production process, identify biases and discrepancies in our current methods, and highlight specific solutions to make vision science, as well as our community, more inclusive and impactful.

Presentations

Making the Case for Critical Vision Science: Beyond Diversity, Equity and Inclusion
Sholei Croom\(^1\); \(^1\)Johns Hopkins University

Looking Beyond Parochial Participant Pools
Pawan Sinha\(^1\); \(^1\)Massachusetts Institute of Technology (MIT)

Addressing Racial and Phenotypic Bias in Human Neuroscience Methods
Jasmine Kwasa\(^1\); \(^1\)Carnegie Mellon University

Facecraft: Race Reification in Psychological Research with Faces
Joel E Martinez\(^1\); \(^1\)Harvard University

Scientists in Context
Vassiki S Chauhan\(^1\); \(^1\)Barnard College
Symposia

How does the brain combine generative models and direct discriminative computations for visual inference?

Friday, May 19, 2023, 12:00 - 2:00 pm EDT, Talk Room 2

Organizers: Benjamin Peters¹, Nikolaus Kriegeskorte¹; ¹Columbia University
Presenters: Benjamin Peters, Ralf Haefner, Divya Subramanian, Doris Tsao, Thomas Naselaris

A prevalent view in vision science is that of vision as an inference process, where sensory evidence is evaluated in the context of a generative model that captures prior knowledge about the world. In this conception, visual inference is thought to involve top-down predictions of sensory data serving to evaluate the likelihood of alternative hypotheses. An alternative conception describes vision as a sequence of largely feedforward discriminative computations that filter and transform the visual information so as to represent behaviorally relevant information. This symposium will seek a unified understanding of how primate vision might combine generative models and discriminative computations.

Presentations

Naturalistic primate vision combines generative and discriminative computations
Benjamin Peters¹; ¹Columbia University

Behavioral and neural evidence that the visual system performs approximate inference in a hierarchical generative model
Ralf Haefner¹; ¹University of Rochester

Bayesian and Discriminative Models for Visual Stability across Saccades
Divya Subramanian¹,², John M. Pearson¹, Marc A. Sommer¹; ¹Duke University, ²National Institutes of Health (NIH)

Probing for the existence of a generative model in the macaque face patch system
Doris Tsao¹,²; ¹UC Berkeley, ²Howard Hughes Medical Center

Why is the human visual system generative?
Thomas Naselaris¹; ¹University of Minnesota
Symposia
The Active Fovea

Friday, May 19, 2023, 2:30 - 4:30 pm EDT, Talk Room 1

Organizers: Martina Poletti¹, Martin Rolfs², Jude Mitchell¹; ¹University of Rochester, ²Humboldt-Universität
Presenters: Wolf Harmening, Martina Poletti, Hamutal Slovin, Lisa Kroell, Shanna Coop, Tong Zhang

This symposium will take the audience on a journey from the earliest steps of foveal processing at the retinal level to cortical processing in V1 and beyond. It will show how vision and oculomotor behavior are constantly intertwined at each level of processing to the point that behavior becomes an integral part of vision even at its finest scale. We will showcase the most recent advances in the field achieved with a blend of cutting-edge technologies and experimental techniques to propose a new, active view of foveal vision encompassing its interaction with fixational eye movements, saccades and peripheral vision.

Presentations

Non-random fixational drift and sub-cone resolution in the human fovea
Wolf Harmening¹, Jenny Witten¹; ¹University of Bonn, Department of Ophthalmology, Ernst-Abbe-Str. 2, 53127 Bonn, Germany

The nonhomogeneous foveola and the need for active vision at this scale
Martina Poletti¹, Ashley Clark¹, Sanjana Kapisthalam¹, Yue Zhang¹; ¹University of Rochester

A two-phase extra-retinal input into monkey's V1: the effect of fixational saccades on population responses
Hamutal Slovin¹, Nativ Yarden¹, Bouhnik Tomer¹; ¹The Leslie and Gonda (Goldschmied) Multidisciplinary Brain Res. Ctr., Bar-Ilan Univ., Ramat Gan, Israel

Foveal vision anticipates defining features of eye movement targets: converging evidence from human psychophysics
Lisa Kroell¹, Martin Rolfs¹,²,³,⁴; ¹Department of Psychology, Humboldt-Universität zu Berlin, Germany, ²Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Germany, ³Exzellenzcluster Science of Intelligence, Technische Universität Berlin, Germany, ⁴Bernstein Center for Computational Neuroscience Berlin, Germany

Enhanced feature tuning for saccade targets in foveal but not peripheral visual neurons
Shanna Coop¹, Jacob Yates², Jude Mitchell³; ¹Neurobiology, Stanford University, USA, ²Department of Biology, University of Maryland College Park, USA, ³Brain and Cognitive Sciences, University of Rochester, USA

From the fovea to the periphery and back: mechanisms of trans-saccadic visual information transfer in the superior colliculus
Tong Zhang¹,², Ziad Hafed¹,²; ¹Werner Reichardt Center for Integrative Neuroscience, University of Tübingen, Tübingen, Germany 72076, ²Hertie Institute for Clinical Brain Research, University of Tübingen, Tübingen, Germany 72076
Symposia
The development of categorical object representations: bridging visual neuroscience and deep learning

Friday, May 19, 2023, 2:30 - 4:30 pm EDT, Talk Room 2
Organizers: Marieke Mur\(^1\); \(^1\)Western University
Presenters: Heather L Kosakowski, Michael J Arcaro, Katharina Dobs, Talia Konkle, Marieke Mur

The primate visual cortex develops rapidly over the first years of life. During this early learning period, object representations in high-level visual cortex begin to emphasize categories of ecological relevance such as faces and animals. How these categorical object representations emerge over the course of development is not well understood. Is development solely driven by visual experience? What constraints may additionally shape the development of categorical object representations? This symposium seeks to answer these key questions by integrating the latest work on visual object learning in the fields of developmental and computational neuroscience.

Presentations

Parallel development of cortical regions that support higher-level vision and cognition
Heather L Kosakowski\(^1\); \(^1\)Harvard University

Topographic constraints on visual development
Michael J Arcaro\(^1\); \(^1\)University of Pennsylvania

Using deep neural networks to test possible origins of human face perception
Katharina Dobs\(^1\); \(^1\)Justus-Liebig University Giessen

Leveraging deep neural networks for learnability arguments
Talia Konkle\(^1\), Colin Connell\(^1\), Jacob Prince\(^1\), George Alvarez\(^1\); \(^1\)Harvard University

Bridging visual developmental neuroscience and deep learning: challenges and future directions
Marieke Mur\(^1\); \(^1\)Western University
Symposia

Object representations in the parietal cortex

*Friday, May 19, 2023, 5:00 - 7:00 pm EDT, Talk Room 1*

Organizers: Erez Freud¹, Maryam Vaziri Pashkam², Yaoda Xu³; ¹York University, ²National Institute of Mental Health, ³Yale University

Presenters: Maryam Vaziri-Pashkam, Vladislav Ayzenberg, Anne B. Sereno, Erez Freud, Stefania Bracci, Yaoda Xu

Understanding visual object representation is essential to understanding primate vision. Recent evidence shows that the dorsal visual pathway contains robust object representations. How shall we make sense of such representations? By bringing together six speakers studying object representations from different perspectives and using diverse approaches, this symposium aims to characterize the nature of dorsal object representations and elucidate their functional significance and developmental trajectories. Each speaker will also share their thoughts on what they think are the critical unanswered questions and whether it is possible to form a unified view of the role of the parietal cortex in object processing.

**Presentations**

**Two pathways for processing object shapes**
Maryam Vaziri-Pashkam¹; ¹Laboratory of Brain and Cognition, National Institute of Mental Health

**Dorsal and ventral visual pathways: An expanded neural framework for object recognition**
Vladislav Ayzenberg¹, Marlene Behrmann¹,²; ¹Neuroscience Institute and Psychology Department, Carnegie Mellon University, ²Department of Ophthalmology, University of Pittsburgh

**Independence, not interactions: What simulations suggest about ventral and dorsal pathways.**
Anne B. Sereno¹,², Zhixian Han²; ¹Psychological Sciences Department, Purdue University, ²Weldon School of Biomedical Engineering, Purdue University

**Object representations in the dorsal pathway are subject to a protracted and susceptible developmental trajectory.**
Erez Freud¹; ¹Department of Psychology and the Centre for Vision Research, York University

**The role of behavioral goals in shaping object representations in the two visual pathways.**
Stefania Bracci¹, Hans Op de Beeck²; ¹Center for Mind/Brain Sciences - CIMEC, University of Trento, Rovereto (TN), Italy, ²KU Leuven, Leuven Brain Institute, Brain & Cognition Research Unit, Leuven, 3000, Belgium.

**Adaptive visual object representation in the human posterior parietal cortex**
Yaoda Xu¹; ¹Psychology Department, Yale University
Continuous psychophysics

Symposia

Continuous psychophysics

Friday, May 19, 2023, 5:00 - 7:00 pm EDT, Talk Room 2

Organizers: Johannes Burge¹, Kathryn Bonnen²; ¹University of Pennsylvania, ²Indiana University

Presenters: Johannes Burge, Constantin Rothkopf, David Burr, Clara Mestre, Pascal Mamassian

Continuous psychophysics is a recent and potentially paradigm-shifting methodological advance in the science of perception and action. While traditional psychophysics (e.g. forced-choice, two-alternative tasks) usually acquires measurements on the time-scale of seconds, the computations driving perception and action often take place on the time-scale of milliseconds. Continuous psychophysics closes this temporal gap, providing information about temporal dynamics with millisecond-scale precision. This symposium will showcase prominent examples of the topics that can be investigated with this approach: depth and motion perception, temporal integration, perception & action, numerosity, visual development, and confidence/metacognition.

Presentations

Continuous psychophysics: Past, Present, and Future
Johannes Burge¹, Kathryn Bonnen²; ¹University of Pennsylvania, ²Indiana University

Putting perception into action: Inverse optimal control for continuous psychophysics
Constantin Rothkopf¹, Dominik Straub¹; ¹Technical University of Darmstadt, Germany

Continuous tracking as a general tool to study the dynamics and context effects of human perception
David Burr¹, Pierfrancesco Ambrosi¹, Guido Marco Cicchini²; ¹University of Florence, Florence, Italy, ²National Research Council, Pisa, Italy

Applications of continuous tracking to typical and atypical visual development
Clara Mestre¹, Colin Downey¹; ¹Indiana University

Visuo-motor confidence
Pascal Mamassian¹, Shannon Locke¹, Alexander Goettker², Karl Gegenfurtner²; ¹CNRS & École normale supérieure, Paris, France, ²Justus-Liebig University Giessen, Giessen, Germany, ³New York University, New York, NY
Talk Sessions

Saturday, May 20

Time
8:15 am  Face Perception: Disorders, individual differences, and social cognition
10:45 am  Materials, Objects and Perception
2:30 pm  Development: Infancy
5:15 pm  Intuitive Physics and Event Perception

Perceptual Organization: Bistability, representation
Eye Movements: Perception, cognition
Artificial neural networks and vision
Temporal Processing

Sunday, May 21

Time
8:15 am  Perceptual Organization: Motion, texture
10:45 am  Plasticity and Learning 1
2:30 pm  Object Recognition: Artificial neural networks, models
5:15 pm  Attention: Mechanisms and models

Multisensory Processing
Perception and Action: Reach, grasp, walk
Visual Search: Attention, memory
Color, Light and Materials: Cones to cognition

Monday, May 22

Time
8:15 am  Spatial Vision
10:45 am  Development: Disorders

Motion: Neural mechanisms, models, perception
3D: Disparity and shape

Tuesday, May 23

Time
8:15 am  Plasticity and Learning 2
10:45 am  Visual Memory: Space, time, features, objects
2:30 pm  Eye Movements: Neural processes and models
5:15 pm  Attention: Models, individual differences, reward, capture, shifting

Binocular Vision
Object Recognition: Categories, neural mechanisms
Scene Perception
Visual Working Memory

Wednesday, May 24

Time
8:15 am  Perceptual Decision-Making and Confidence
10:45 am  Attention: Spatial, featural, temporal, divided

Visual Search
Face Perception: Neural mechanisms and models
Face Perception: Disorders, individual differences, and social cognition

Talk Session: Saturday, May 20, 2023, 8:15 – 9:45 am EDT, Talk Room 1
Moderator: Brad Duchaine, Dartmouth

Talk 1, 8:15 am, 21.11

Strong modulation of face distortions in prosopometamorphopsia by color
Antônio Mello¹, Daniel Stehr¹, Krzysztof Bujarski¹, Viola Störmer¹, Brad Duchaine¹; ¹Dartmouth College

Talk 2, 8:30 am, 21.12

Tracking the emergence of hyperfamiliarity for faces: Late covert discrimination followed by hyperfamiliarity due to disrupted post-perceptual processes
Marie-Luise Kieseler¹ (mlk.gr@dartmouth.edu), Katie Fisher², Rebecca Nako², Kira Noad³, David Watson³, Timothy Andrews³, Martin Eimer², Brad Duchaine¹; ¹Dartmouth College, ²Birkbeck College, University of London, ³University of York

Talk 3, 8:45 am, 21.13

Weaker face recognition in adults with autism arises from perceptually based alterations
Marissa Hartston¹ (ron.marissa@gmail.com), Yoni Pertzov², Galia Avidan³, Bat-Sheva Hadad¹; ¹University of Haifa, ²The Hebrew University of Jerusalem, ³Ben-Gurion University of the Negev

Talk 4, 9:00 am, 21.14

In the face of diversity: Face ethnicity influences the use of face features for social trait perception
Valentina Gosetti¹, Laura B. Hensel¹, Robin A. A. Ince¹, Oliver G. B. Garrod¹, Philippe G. Schyns¹, Rachael E. Jack¹; ¹University of Glasgow

Talk 5, 9:15 am, 21.15

The face of mischief: A stereotyped signal of norm violation within a Magic Circle
Loren Matelsky¹ (loren@newschool.edu), Hong B. Nguyen¹, Colleen Macklin¹, Benjamin van Buren¹; ¹The New School for Social Research

Talk 6, 9:30 am, 21.16

The spatiotemporal dynamics of social scene perception in the human brain
Emalie McMahon¹, Taylor Abel², Jorge Gonzalez-Martinez², Michael F. Bonner¹, Avniel Ghuman², Leyla Isik¹; ¹Johns Hopkins University, ²University of Pittsburgh

Perceptual Organization: Bistability, representation

Talk Session: Saturday, May 20, 2023, 8:15 – 9:45 am EDT, Talk Room 2
Talk 1, 8:15 am, 21.21

**Perceptual Organization is Limited in the Peripheral Vision**

Cathleen Moore¹ (cathleen-moore@uiowa.edu), Qingzi Zheng¹, Nicole Jardine; ¹University of Iowa

---

Talk 2, 8:30 am, 21.22

**Perceptual popout may be linked to de-suppression of orientation-untuned surround suppression in macaque V1**

Xingnan ZHAO¹ (zhaoxingnan@pku.edu.cn), Shenghui ZHANG¹, Shiming Tang¹,², Cong Yu¹,³,⁴; ¹PKU-Tsinghua Center for Life Sciences,²Peking University, ³School of Life Sciences, ⁴School of Psychological and Cognitive Sciences, ⁴IDG-McGovern Institute for Brain Research, Peking University

---

Talk 3, 8:45 am, 21.23

**Neural representation of occluded objects in visual cortex**

Courtney Mansfield¹ (courtneymansfield@hotmail.co.uk), Tim Kietzmann², Jasper van den Bosch³, Ian Charest⁴, Marieke Mur⁵, Nikolaus Kriegeskorte⁶, Fraser Smith¹; ¹University of East Anglia, ²University of Osnabruck, ³University of Birmingham, ⁴Universite de Montreal, ⁵Brain and Mind Institute, Western University, ⁶Zuckerman Institute, Columbia University

---

Talk 4, 9:00 am, 21.24

**Gestalt formation promotes awareness of suppressed visual stimuli during binocular rivalry**

Mar Nikiforova¹ (mnikiforova@umass.edu), Rosemary Cowell, David Huber; ¹University of Massachusetts, Amherst

---

Talk 5, 9:15 am, 21.25

**How many perceptual categories do observers experience during visual multistability?**

Jan Skerswetat¹ (j.skerswetat@northeastern.edu), Peter J. Bex¹; ¹Northeastern University, USA

---

Talk 6, 9:30 am, 21.26

**Increasing Interocular Grouping Demands during Binocular Rivalry with MEG**

Eric Mokri¹ (eric.mokri@mail.mcgill.ca), Jason da Silva Castanheria¹, Janine D. Mendola¹; ¹McGill University

---

**Materials, Objects and Perception**

**Talk Session: Saturday, May 20, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1**

**Moderator: Bei Xiao, American University**

---

Talk 1, 10:45 am, 22.11

**Behaviourally relevant image structure linked with visual sampling and perception of materials**

Alexandra C. Schmid¹, Matthias Nau¹, Chris I. Baker¹; ¹National Institutes of Health
Talk 2, 11:00 am, 22.12

Shared Representation of Different Material Categories: Transfer Learning of Crystals From Soaps
Chenxi Liao\(^1\), Masataka Sawayama\(^2\), Bei Xiao\(^1\); \(^1\)American University, \(^2\)The University of Tokyo

Talk 3, 11:15 am, 22.13

Material perception diagnosticity of visual product interaction.
Aaron Kaltenmaier\(^1,2\), Maarten Wijntjes\(^1\); \(^1\)Technical University Delft, \(^2\)University College London

Talk 4, 11:30 am, 22.14

Conor J. R. Smithson\(^1\) (conor.smithson@vanderbilt.edu), Jason K. Chow\(^1\), Ting-Yun Chang\(^1\), Isabel Gauthier\(^1\); \(^1\)Vanderbilt University

Talk 5, 11:45 am, 22.15

The Beholder's Share: Cross-subject Variability in Responses to Abstract Art
Celia Durkin\(^1,4\) (ced2166@columbia.edu), Benjamin Peters\(^1,4\), Christopher Baldassano\(^1\), Eric Kandel\(^2,3,4\), Daphna Shohamy\(^1,2,3,4\); \(^1\)Columbia University Psychology Department, \(^2\)Howard Hughes Medical Institute, \(^3\)Kavli Institute for Brain Science, \(^4\)Zuckerman Mind, Brain Behavior Institute

Talk 6, 12:00 pm, 22.16

A solution to the ill-posed problem of common factors in vision
Dario Gordillo\(^1\), Aline Cretenoud\(^1\), Simona Garobbio\(^1\), Michael H. Herzog\(^1\); \(^1\)Laboratory of Psychophysics, Brain Mind Institute, School of Life Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

Talk 7, 12:15 pm, 22.17

Toward a computational neuroscience of visual cortex without deep learning
Atlas Kazemian\(^1\), Eric Elmoznino\(^1\), Michael Bonner\(^1\); \(^1\)Johns Hopkins University

Eye Movements: Perception, cognition

Talk Session: Saturday, May 20, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2
Moderator: Jorge Otero-Millan, UC Berkeley

Talk 1, 10:45 am, 22.21

Motion signals at the target of saccadic eye movements modulate presaccadic foveal perception and drive predictive gaze responses
Lisa M. Kroell\(^1,2\) (lisa.maria.kroell@hu-berlin.de), Jude F. Mitchell\(^3\), Martin Rolfs\(^1,2\); \(^1\)Humboldt-University of Berlin, \(^2\)Berlin School of Mind and Brain, \(^3\)University of Rochester

Talk 2, 11:00 am, 22.22

Cortical spatiotemporal reformatting tuned to saccadic amplitude
Talk 3, 11:15 am, 22.23
Visual stability and motor updating in autistic symptomatology.
Antonella Pomè¹, Eckart Zimmermann²; ¹Heinrich Heine University Düsseldorf

Talk 4, 11:30 am, 22.24
Thinks are looking up: The extrafoveal preview effect is the largest at the upper vertical meridian, where peripheral sensitivity is worst
Xiaoyi Liu¹ (xl4251@nyu.edu), David Melcher¹, Marisa Carrasco², Nina Hanning²,³; ¹New York University Abu Dhabi, ²New York University, ³Humboldt-Universität zu Berlin

Talk 5, 11:45 am, 22.25
Motion blur near the resolution limit of the parafoveal retina
Alisa Braun¹ (alisa_braun@berkeley.edu), Isabel L Groth¹, Jorge Otero-Millan¹, William S Tuten¹; ¹UC Berkeley

Talk 6, 12:00 pm, 22.26
Modeling internal state changes in free-viewing and visual search scanpaths with gain control in DeepGaze III
Matthias Kümmerer¹ (matthias.kuemmerer@bethgelab.org), Matthias Bethge¹; ¹University of Tübingen, Tuebingen AI Center

Talk 7, 12:15 pm, 22.27
VR training produces more expert-like gaze behaviour in tennis players on-court
David Mann¹ (d.mann@vu.nl), Laure Soepenberg¹, Joost Bosschert², Han Hakkens², Aldo Hoekstra³; ¹Vrije Universiteit Amsterdam, ²SportsImprov, ³Royal Dutch Lawn Tennis Association (KNLTB)

Development: Infancy

Talk Session: Saturday, May 20, 2023, 2:30 – 4:15 pm EDT, Talk Room 1
Moderator: Lisa Oakes, UC Davis

Talk 1, 2:30 pm, 24.11
Visual experience drives the development of novel and reliable visual representations from endogenously structured networks
Sigrid Trägenap¹ (traegenap@fias.uni-frankfurt.de), David E. Whitney², David Fitzpatrick², Matthias Kaschube¹,³; ¹Frankfurt Institute for Advanced Studies, ²Department of Functional Architecture and Development of Cerebral Cortex, Max Planck Florida Institute for Neuroscience, Jupiter, Florida, USA, ³Goethe University Frankfurt, Department of Computer Science, Germany

Talk 2, 2:45 pm, 24.12
Slow change: An analysis of infant egocentric visual experience
Saber Sheybani1 (sheybani@iu.edu), Zoran Tiganj1, Justin N. Wood 1, Linda B. Smith1; 1Indiana University Bloomington

Talk 3, 3:00 pm, 24.13
Influences of the home visual environment on infant attention: insights from remote webcam eye tracking
Denise M Werchan (denise.werchan@nyulangone.org), Moriah E Thomason1, Natalie H Brito2; 1NYU Langone Health, 2New York University

Talk 4, 3:15 pm, 24.14
The statistics of infants’ natural visual experience are shaped by motor development.
Zachary Petroff1 (zpetroff@iu.edu), T. Rowan Candy1, Kathryn Bonnen1; 1Indiana University

Talk 5, 3:30 pm, 24.15
Evaluation of Graph-Based Visual Saliency model using infant fixation data
Brianna K. Hunter1 (bkhunter@ucdavis.edu), Shannon Klotz1, Michaela DeBolt1, Steven Luck1, Lisa Oakes1; 1University of California, Davis

Talk 6, 3:45 pm, 24.16
Infants are sensitive to the Edge Orientation Entropy of Natural Scenes
Philip McAdams1, Sara Svobodova1, Taysa-Ja Newman1, Kezia Terry1, Alice Skelton1, Anna Franklin1; 1Sussex Colour Group & Baby Lab, School of Psychology, University of Sussex, UK

Talk 7, 4:00 pm, 24.17
What happens to change-detection if you take away the task? Assessing adult and infant fixation preferences while passively viewing change-detection arrays
Shannon Ross-Sheehy1 (rosssheehy@utk.edu), Victoria Jones1, Esther Reynolds1; 1University of Tennessee

Artificial neural networks and vision

Talk Session: Saturday, May 20, 2023, 2:30 – 4:15 pm EDT, Talk Room 2
Moderator: Frank Tong, Vanderbilt University

Talk 1, 2:30 pm, 24.21
Harmonizing the visual strategies of image-computable models with humans yields more performant and interpretable models of primate visual system function.
Ivan Felipe Rodriguez1 (ivan_felipe_rodriguez@brown.edu), Drew Linsley1,4, Jay Gopal1, Thomas Fe1,2, Michael J. Acaro3, Saloni Sharma3, Margaret Livingstone3, Thomas Serre1,4; 1Brown University, 2Artificial and Natural Intelligence Toulouse Institute, 3Harvard University, 4Carney institute for Brain Science

Talk 2, 2:45 pm, 24.22
Canonical Dimensions of Neural Visual Representation
Zirui Chen1 (zchen160@jhu.edu), Michael Bonner1; Johns Hopkins University

Talk 3, 3:00 pm, 24.23

Net2Brain: A Toolbox to compare artificial vision models with human brain responses
Domenic Bersch1, Kshitij Dwivedi1, Martina Vilas1,2, Radoslaw Martin Cichy3,4,5, Gemma Roig1; 1Johann Wolfgang Goethe-Universität Frankfurt, 2Ernst Struengmann Institute for Neuroscience, 3Department of Education and Psychology, Freie Universität Berlin, 4Berlin School of Mind and Brain, Faculty of Philosophy, 5Bernstein Center for Computational Neuroscience Berlin

Talk 4, 3:15 pm, 24.24

Unsupervised contrastive learning and supervised classification training have opposite effects on the human-likeness of CNNs during occluded object processing
David Coggan1 (ddcoggan@gmail.com), Frank Tong1; 1Vanderbilt University

Talk 5, 3:30 pm, 24.25

Deep learning classifiers match human accuracies but not the quirks
Joseph MacInnes1, Natalia Zhozhikashvili, Kirill Koretaev2, Feurra Matteo3; 1Swansea University, 2Purple Gaze, 3HSE University

Talk 6, 3:45 pm, 24.26

Noise reduction as a unified mechanism of perceptual learning in both artificial and biological visual systems
Yu-Ang Cheng1,2 (yuang_cheng@brown.edu), Ke Jia8,9,10, Takeo Watanabe2, Sheng Li4,5,6,7, Ru-Yuan Zhang1,3; 1Institute of Psychology and Behavioral Science, Antai College of Economics and Behavioral Sciences, Shanghai Jiao Tong University, Shanghai, China, 2Brown University, Department of Cognitive, Linguistic and Psychological Sciences, RI, USA, 3Shanghai Mental Health Center, School of Medicine, Shanghai Jiao Tong University, Shanghai, China, 4School of Psychological and Cognitive Sciences, Peking University, Beijing, China, 5Beijing Key Laboratory of Behavior and Mental Health, Peking University, Beijing, China, 6PKU-IDG/McGovern Institute for Brain Research, Peking University, Beijing, China, 7Key Laboratory of Machine Perception (Ministry of Education), Peking University, Beijing, China, 8Department of Neurobiology, Affiliated Mental Health Center & Hangzhou Seventh People, 9Liangzhu Laboratory, MOE Frontier Science Center for Brain Science and Brain-machine Integration, State Key Laboratory of Brain-machine Intelligence, Zhejiang University, Hangzhou, China, 10NHC and CAMS Key Laboratory of Medical Neurobiology, Zhejiang University, Hangzhou, China

Talk 7, 4:00 pm, 24.27

Comparing motion and static feature selectivity between the macaque dorsal and ventral temporal visual cortical body patches
Rajani Raman1,2 (rajani.raman@kuleuven.be), Anna Bognár1,2, Ghazaleh Ghamkhari Nejad1,2, Nick Taubert3, Beatrice de Gelder4,5, Martin A Giese3, Rufin Vogels1,2; 1Department of Neuroscience, KU Leuven, Leuven, Belgium, 2Leuven Brain Institute, KU Leuven, Leuven, Belgium, 3HIH&CIN, Department of Cognitive Neurology, University Clinic Tübingen, Tübingen, Germany, 4Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, 5Department of Computer Science, University College London, London, United Kingdom
Intuitive Physics and Event Perception

Talk Session: Saturday, May 20, 2023, 5:15 – 6:45 pm EDT, Talk Room 1
Moderator: Jason Fischer, Johns Hopkins University

Talk 1, 5:15 pm, 25.11
The role of agentive and physical forces in the neural representation of motion events
Seda Akbiyik¹ (sakbiyik@fas.harvard.edu), Oliver Sussman¹, Moritz Wurm², Alfonso Caramazza¹,²; ¹Harvard University, ²Centre for Mind/Brain Sciences University of Trento

Talk 2, 5:30 pm, 25.12
Decoding the physics of actions in the dorsal visual pathway
Moritz Wurm¹ (moritz.wurm@unitn.it), Yiğit Ergüç¹; ¹University of Trento

Talk 3, 5:45 pm, 25.13
What does learning look like? Inferring epistemic intent from observed actions
Sholei Croom¹ (scroom1@jhu.edu), Hanbei Zhou¹, Chaz Firestone¹; ¹Johns Hopkins University

Talk 4, 6:00 pm, 25.14
That’s just how I roll!: Predicting and remembering objects’ locations via the perception of frictional surface contact
Hong B. Nguyen¹ (nguyh376@newschool.edu), Benjamin van Buren¹; ¹The New School

Talk 5, 6:15 pm, 25.15
Using fMRI to study the neural basis of violation-of-expectation
Shari Liu¹,² (shariliu@jhu.edu), Kirsten Lydic², Rebecca Saxe²; ¹Johns Hopkins University, ²Massachusetts Institute of Technology

Talk 6, 6:30 pm, 25.16
*Things* versus *Stuff* in the Brain
Vivian C. Paulun¹ (vpaulun@mit.edu), RT Pramod¹, Nancy Kanwisher¹; ¹Massachusetts Institute of Technology

Temporal Processing

Talk Session: Saturday, May 20, 2023, 5:15 – 6:45 pm EDT, Talk Room 2
Moderator: Pascal Mamassian, Ecole Normale Supérieure and CNRS

Talk 1, 5:15 pm, 25.21
Event-based warping: An illusory distortion of time within events
Rui Zhe Goh¹ (rgoh1@jhu.edu), Hanbei Zhou¹, Chaz Firestone¹, Ian Phillips¹; ¹Johns Hopkins University

Talk 2, 5:30 pm, 25.22
Interocular binding of chromatic signals across time
Benjamin M Chin¹ (bechin@sas.upenn.edu), Johannes Burge¹; ¹University of Pennsylvania
Talk 3, 5:45 pm, 25.23

The temporal sensitivity of visual cortex reflects an eccentricity-dependent variation in surround inhibition

Carlyn Patterson Gentile\textsuperscript{1,2} (pattersonc@chop.edu), Manuel Spitschan\textsuperscript{3,4}, Huseyin Taskin\textsuperscript{1}, Andrew Bock\textsuperscript{1}, Geoffrey Aguirre\textsuperscript{1}; \textsuperscript{1}University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, \textsuperscript{2}Children’s Hospital of Philadelphia, Philadelphia, PA, \textsuperscript{3}Translational Sensory & Circadian Neuroscience, Max Planck Institute for Biological Cybernetics, Tübingen, Germany, \textsuperscript{4}Chronobiology & Health, TUM Department of Sport and Health Sciences (TUM SG), Technical University of Munich, Munich, Germany

Talk 4, 6:00 pm, 25.24

Alpha power modulates long-lasting feature integration

Maëlan Q. Menétrey\textsuperscript{1} (maelan.menetre@epfl.ch), Michael H. Herzog\textsuperscript{1}, David Pascucci\textsuperscript{1}; \textsuperscript{1}Laboratory of Psychophysics, École Polytechnique Fédérale de Lausanne (EPFL)

Talk 5, 6:15 pm, 25.25

Serial Dependence Biases Realistic Skin Cancer Diagnosis

Zhihang Ren\textsuperscript{1} (peter.zhren@berkeley.edu), Xinyu Li\textsuperscript{1}, Dana Pietralla\textsuperscript{2}, Mauro Manassi\textsuperscript{3}, Stella Yu\textsuperscript{1,4}, David Whitney\textsuperscript{1}; \textsuperscript{1}University of California, Berkeley, \textsuperscript{2}University of Cologne, \textsuperscript{3}University of Aberdeen, \textsuperscript{4}University of Michigan, Ann Arbor

Talk 6, 6:30 pm, 25.26

Overestimated speed at short durations creates a novel motion-position dissociation

Pascal Mamassian\textsuperscript{1} (pascal.mamassian@ens.fr); \textsuperscript{1}Ecole Normale Supérieure and CNRS

Perceptual Organization: Motion, texture

Talk Session: Sunday, May 21, 2023, 8:15 – 9:45 am EDT, Talk Room 1
Moderator: Michael Morgan, City, University of London

Talk 1, 8:15 am, 31.11

Extent of the “fading mirror” phenomenon as a function of image statistics of the ground texture for mirror placement

Kazushi Maruya\textsuperscript{1} (kazushi.maruya.zb@hco.ntt.co.jp), Tomoko Ohtani\textsuperscript{2}; \textsuperscript{1}NTT Communication Science Laboratories, \textsuperscript{2}Meiji University

Talk 2, 8:30 am, 31.12

Spatial Mechanisms Mediating Visual Responses to Symmetries in Textures

Yara Iskandar\textsuperscript{1} (misk22@my.yorku.ca), Christopher Lee\textsuperscript{1,3}, Sebastian Bosse\textsuperscript{2}, Peter J Kohler\textsuperscript{1}; \textsuperscript{1}York University, Toronto, ON, Canada, \textsuperscript{2}Fraunhofer HHI, Germany, \textsuperscript{3}Image Engine Design Inc., Vancouver, BC, Canada

Talk 3, 8:45 am, 31.13

A replication and reanalysis of a classic texture segmentation study

Maria Kon\textsuperscript{1} (mkon@purdue.edu), Gregory Francis\textsuperscript{1}; \textsuperscript{1}Purdue University
**Talk 4, 9:00 am, 31.14**

**Distinct rules for binding in position-based and velocity-based motion systems**

Ilker Duymaz¹ (duymaz@sabanciuniv.edu), Nihan Alp¹; ¹Sabanci University, Istanbul, Turkey

**Talk 5, 9:15 am, 31.15**

**Neural correlates of perceptual motion integration and segmentation of locally paired and unpaired random-dot stimuli.**

Bikalpa Ghimire¹ (bghimire2@wisc.edu), Xin Huang¹; ¹University of Wisconsin- Madison

**Talk 6, 9:30 am, 31.16**

**Object solidity disambiguates ambiguous motion**

Dawei Bai¹ (dawei.bai@ens.fr), Brent Strickland¹,²; ¹École Normale Supérieure, PSL Research University, Institut Jean Nicod (ENS, EHESS, CNRS), Paris, France, ²Africa Business School; School of Collective Intelligence - UM6P - Rabat, Morocco

---

## Multisensory Processing

**Talk Session: Sunday, May 21, 2023, 8:15 – 9:45 am EDT, Talk Room 2**

**Moderator: Patrizia Fattori, University of Bologna**

**Talk 1, 8:15 am, 31.21**

**Visual cortical regions carry information about auditory attention**

Abigail Noyce¹, Weizhe Guo¹, Wenkang An², Barbara Shinn-Cunningham¹; ¹Carnegie Mellon University, ²Boston Children's Hospital

**Talk 2, 8:30 am, 31.22**

**Visual vs. Auditory Landmark for Vestibular Self-motion Perception**

Silvia Zanchi¹,²,³,⁵ (silvia.zanchi@iit.it), Luigi Felice Cuturi¹,⁴, Giulio Sandini³, Monica Gori¹, Elisa Raffaella Ferrè⁵; ¹Unit of Visually Impaired People, Italian Institute of Technology, Genoa, Italy, ²DIBRIS Department, University of Genoa, Italy, ³Robotics Brain and Cognitive Sciences, Italian Institute of Technology, Genoa, Italy, ⁴Department of Cognitive, Psychological, Pedagogical Sciences and of Cultural Studies, University of Messina, Messina, Italy, ⁵Department of Psychological Sciences, Birkbeck, University of London, London, UK

**Talk 3, 8:45 am, 31.23**

**Effect of subjective visual awareness on multisensory integration: evidence from behavioural data and computational modelling**

Sanni Ahonen¹ (s.ahonen.21@abdn.ac.uk), Thomas Otto², Arash Sahraie¹; ¹University of Aberdeen, ²University of St Andrews

**Talk 4, 9:00 am, 31.24**

**Interactions of body representations in rubber hand illusion and tool-use paradigms**

Inci Ayhan¹ (inci.ayhan@boun.edu.tr), Alp Erkent¹, Emre Ugur¹, Erhan Oztop²,³; ¹Bogazici University, Istanbul, Turkey, ²Ozyegin University, Istanbul, Turkey, ³Osaka University, Japan
Talk 5, 9:15 am, 31.25

**Sensorimotor reorganization in visual cortex in brain-damaged individuals with primary somatosensory damage**

Jared Medina¹, Yuqi Liu¹², Elizabeth J. Halfen³, Jeffrey M. Yau³, Simon Fischer-Baum⁴, Peter Kohler⁵, Olufunsho Faseyitan⁶, H. Branch Coslett⁷; ¹University of Delaware, ²Chinese Academy of Neuroscience, ³Baylor College of Medicine, ⁴Rice University, ⁵York University, ⁶University of Pennsylvania

---

Talk 6, 9:30 am, 31.26

**Narrative, not low-level vision, synchronises audiences during television viewing**

Hugo Hammond¹ (hugo.hammond@bristol.ac.uk), Michael Armstrong², Graham Thomas², Edwin Dalmaijer¹, Iain Gilchrist¹; ¹University of Bristol, ²BBC Research and Development, UK

---

**Plasticity and Learning 1**

*Talk Session: Sunday, May 21, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1*

**Moderator: Kristina Visscher, UAB, University of Alabama, Birmingham**

---

Talk 1, 10:45 am, 32.11

**The effect of consolidation and explicitness on learning and transferring higher-level structural knowledge in vision**

Dominik Garber¹² (garber_dominik@phd.ceu.edu), Jozsef Fiser¹²; ¹Department of Cognitive Science, Central European University, ²Center for Cognitive Computation, Central European University

---

Talk 2, 11:00 am, 32.12

**Neuromodulatory functions (reward and arousal) induce separate effects on visual perceptual learning (VPL) of a salient but goal-irrelevant visual feature**

Zhiyan Wang¹ (zhiyan.wang@psychologie.uni-regensburg.de), Mark Greenlee¹; ¹University of Regensburg, Germany

---

Talk 3, 11:15 am, 32.13

**Plasticity in early visual cortex is modulated by feature salience in task-irrelevant visual perceptual learning**

Markus Becker¹ (markus.becker@ur.de), Jennifer Lubich¹, Sebastian Frank¹; ¹University of Regensburg

---

Talk 4, 11:30 am, 32.14

**Pupillometric signature of implicit learning**

Paola Binda¹ (paola1binda@gmail.com), Chiara Terzo², Marco Turi³⁴, David C. Burr²; ¹University of Pisa, ²University of Florence, ³University of Salento, ⁴Fondazione Stella Maris Mediterraneo

---

Talk 5, 11:45 am, 32.15

**How does attentional capture with statistical learning accelerate perception?**

Abbey Nydam¹ (a.s.nydam@gmail.com), Jay Pratt¹; ¹University of Toronto

---

Talk 6, 12:00 pm, 32.16

Inner retinal integrity correlates with preservation of fine direction discrimination in the blind-field early after V1 damage

Bryan Redmond\textsuperscript{1,2} (bryan_redmond@urmc.rochester.edu), Matthew Cavanaugh\textsuperscript{2}, Berkeley Fahrendthold\textsuperscript{2}, Jingyi Yang\textsuperscript{1,2}, Krystel Huxlin\textsuperscript{2}; \textsuperscript{1}University of Rochester School of Medicine & Dentistry, \textsuperscript{2}Flaum Eye Institute

Talk 7, 12:15 pm, 32.17

Competitive neurocognitive networks underlying visual statistical learning

Dezso Nemeth\textsuperscript{1} (dezso.nemeth@inserm.fr), Teodora Vékony\textsuperscript{1}; \textsuperscript{1}INSERM, CRNL, Lyon, France

Perception and Action: Reach, grasp, walk

Talk Session: Sunday, May 21, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2
Moderator: William Warren, Brown University

Talk 1, 10:45 am, 32.21

Decoding Features of Real-world Navigation from the Human Hippocampus

Kathryn N. Graves\textsuperscript{1} (kathryn.graves@yale.edu), Ariadne Letrou\textsuperscript{1}, Tyler E. Gray\textsuperscript{2}, Imran H. Quraishi\textsuperscript{2}, Nicholas B. Turk-Browne\textsuperscript{1,3}; \textsuperscript{1}Department of Psychology, Yale University, \textsuperscript{2}Department of Neurology, Yale University, \textsuperscript{3}Wu Tsai Institute, Yale University

Talk 2, 11:00 am, 32.22

Dynamic collision envelope in virtual reality walking with colliding pedestrians

Jae-Hyun Jung\textsuperscript{1} (jaehyun.jung@meei.harvard.edu), Alex Hwang\textsuperscript{2}, Jonathan Doyon\textsuperscript{3}, Sujin Kim\textsuperscript{4}; \textsuperscript{1}Department of Ophthalmology, Harvard Medical School, \textsuperscript{2}Schepens Eye Research Institute of Massachusetts Eye and Ear

Talk 3, 11:15 am, 32.23

Motion Energy Modulates Feature Tracking in Human Locomotor Control

Zhenyu Zhu\textsuperscript{1} (zhenyu.zhu@brown.edu), William H. Warren\textsuperscript{1}; \textsuperscript{1}Brown University

Talk 4, 11:30 am, 32.24

Visual detection while walking: Sensitivity modulates over the gait cycle

Cameron Phan\textsuperscript{1} (cpha4652@uni.sydney.edu.au), David Alais\textsuperscript{1}, Frans Verstraten\textsuperscript{1}, Matthew Davidson\textsuperscript{1}; \textsuperscript{1}University of Sydney

Talk 5, 11:45 am, 32.25

MEG signatures of arm posture coding and integration into movement plans

Gunnar Blohm\textsuperscript{1} (gunnar.blohm@queensu.ca), Doug Cheyne\textsuperscript{2}, Doug Crawford\textsuperscript{3}; \textsuperscript{1}Queen’s University, Centre for Neuroscience Studies, VISTA, CAPnet, \textsuperscript{2}University of Toronto, The Hospital for Sick Children Research Institute, \textsuperscript{3}York University, Centre for Vision Research, VISTA, CAPnet

Talk 6, 12:00 pm, 32.26

Sensorimotor adaptation reveals systematic biases of 3D estimates for reach-to-grasp actions.
Human see, human do: comparing visual and motor representations of hand gestures
Hunter Schone\textsuperscript{1,2} (hunter.schone@nih.gov), Tamar Makin\textsuperscript{2,3}, Chris Baker\textsuperscript{1}; \textsuperscript{1}Laboratory of Brain & Cognition, National Institute of Mental Health, National Institutes of Health, \textsuperscript{2}Institute of Cognitive Neuroscience, University College London, \textsuperscript{3}MRC Cognition and Brain Sciences Unit, University of Cambridge

Object Recognition: Artificial neural networks, models

A large and rich EEG dataset for modeling human visual object recognition
Alessandro T. Gifford\textsuperscript{1} (alessandro.gifford@gmail.com), Kshitij Dwivedi\textsuperscript{2}, Gemma Roig\textsuperscript{2}, Radoslaw M. Cichy\textsuperscript{1}; \textsuperscript{1}Freie Universität Berlin, \textsuperscript{2}Goethe Universität Frankfurt am Main

Torchlens: A Python package for extracting and visualizing all hidden layer activations from arbitrary PyTorch models with minimal code
JohnMark Taylor\textsuperscript{1} (johnmarkedwardtaylor@gmail.com), Nikolaus Kriegeskorte\textsuperscript{1}; \textsuperscript{1}Columbia University

Invariant object recognition in deep neural networks: impact of visual diet and learning goals
Haider Al-Tahan\textsuperscript{1,2}, Farzad Shayanfar, Ehsan Tousi\textsuperscript{1}, Marieke Mur\textsuperscript{1}; \textsuperscript{1}Western University, \textsuperscript{2}Meta AI

Local texture manipulation further illuminates the intrinsic difference between CNNs and human vision
Alish Dipani\textsuperscript{1}, Huaizu Jiang\textsuperscript{2}, MiYoung Kwon\textsuperscript{1}; \textsuperscript{1}Department of Psychology, Northeastern University, Boston, MA, \textsuperscript{2}Khoury College of Computer Sciences, Northeastern University, Boston, MA

Evaluating the influence of ML models on human judgment of non-physical attributes in images
Shruthi Sukumar\textsuperscript{1,2}, Vijay Veerabadran\textsuperscript{3}, Jascha Sohl-Dickstein\textsuperscript{1}, Michael Mozer\textsuperscript{1}, Gamaleldin Elsayed\textsuperscript{1}; \textsuperscript{1}Google Research, Brain Team, \textsuperscript{2}University of Colorado Boulder, \textsuperscript{3}University of California San Diego

Reconstructing visual experience from a large-scale biologically realistic model of mouse primary visual cortex
Can deep convolutional networks explain the semantic structure that humans see in photographs?

Siddharth Suresh\textsuperscript{1,2} (siddharth.suresh@wisc.edu), Kushin Mukherjee\textsuperscript{1,2}, Timothy T. Rogers\textsuperscript{1,2}; \textsuperscript{1}University of Wisconsin-Madison, Department of Psychology, \textsuperscript{2}McPherson Eye Research Institute

Visual Search: Attention, memory

Talk Session: Sunday, May 21, 2023, 2:30 – 4:15 pm EDT, Talk Room 2
Moderator: Jeff Schall, York University, Canada

The involvement of the temporo-parietal junction in attentional reorienting and stimulus evaluation

Cheol Hwan Kim\textsuperscript{1} (cheol.hwan.kim2391@gmail.com), Jongmin Lee\textsuperscript{1}, Suk Won Han\textsuperscript{1}; \textsuperscript{1}Chungnam National University

Resolving stages of processing in visual search: Frontal eye field neurophysiology with two degrees of difficulty

Wanyi Lyu\textsuperscript{1} (wanyilyu@yorku.ca), Thomas R. Reppert\textsuperscript{2}, Jeffrey D. Schall\textsuperscript{1}; \textsuperscript{1}Department of Biology, Centre for Vision Research, Vision Science to Application, York University, Toronto ON Canada, \textsuperscript{2}Department of Psychology, University of the South, Sewanee TN USA

What do neurons in the superior colliculus encode during visual search?

Abe Leite\textsuperscript{1} (abrahamjleite@gmail.com), Hossein Adeli\textsuperscript{1}, Rakesh Nanjappa\textsuperscript{2}, Robert M. McPeek\textsuperscript{2}, Gregory J. Zelinsky\textsuperscript{1}; \textsuperscript{1}Stony Brook University, \textsuperscript{2}SUNY College of Optometry

Exploring the neural correlates of naturalistic hybrid search tasks

Matias Ison\textsuperscript{1} (matias.ison@nottingham.ac.uk), Joaquin Gonzalez\textsuperscript{1,2}, Alessandra Barbosa\textsuperscript{1}, Damian Care\textsuperscript{2}, Anthony Ries\textsuperscript{3}, Juan Kamienkowski\textsuperscript{2}; \textsuperscript{1}University of Nottingham, \textsuperscript{2}University of Buenos Aires & National Scientific and Technical Research Council, Argentina, \textsuperscript{3}U.S. Army Research Laboratory

Explaining the guidance of search for real-world objects using quantitative similarity

Brett Bahle\textsuperscript{1} (brettbahle@gmail.com), Steven J. Luck\textsuperscript{1}; \textsuperscript{1}University of California - Davis

Attention to object categories: Selection history determines the breadth of attentional
tuning during real-world object search
Douglas A. Addleman\(^1\) (daddleman@dartmouth.edu), Reshma Rajasingh\(^1\), Viola S. Stoermer\(^1\); ¹Dartmouth College

Talk 7, 4:00 pm, 34.27
Searching for a target in a natural scene does not allow for robust recall of scene or target details that are irrelevant to response expectations
Ryan E O'Donnell\(^1\) (ryanodonnell7@gmail.com), Nicolás Cárdenas-Miller\(^1\), Joyce Tam\(^1\), Dheeraj Varghese\(^2\), Brad Wyble\(^1\); ¹Pennsylvania State University, ²Vrije University

Attention: Mechanisms and models

Talk Session: Sunday, May 21, 2023, 5:15 – 7:15 pm EDT, Talk Room 1
Moderator: Sarah Shomstein, The George Washington University

Talk 1, 5:15 pm, 35.11
Direct attention-independent expectation effects on visual perception
Alon Zivony\(^1\) (alonzivony@gmail.com), Martin Eimer\(^1\); ¹Birkbeck, University of London

Talk 2, 5:30 pm, 35.12
Attentional Ungluing: Uncertainty modulates task-irrelevant object representations in human early visual cortex
Xiaoli Zhang\(^1\) (xiaolizhang@gwu.edu), Andrew J. Collegio\(^1\), Dwight J. Kravitz\(^1\), Sarah Shomstein\(^1\); ¹The George Washington University

Talk 3, 5:45 pm, 35.13
Perceptual awareness occurs along a graded continuum: Evidence from psychophysical scaling
Michael Cohen\(^1,2\) (michaelthecohen@gmail.com), Jonathan Keefe\(^3\), Timothy Brady\(^3\); ¹Amherst College, Department of Psychology, ²MIT, Department of Brain and Cognitive Sciences, ³UCSD, Department of Psychology

Talk 4, 6:00 pm, 35.14
Consequences of relaying top-down attentional modulations via neurons with high-dimensional selectivity
Sunyoung Park\(^1\) (supark@ucsd.edu), John Serences\(^1\); ¹University of California San Diego

Talk 5, 6:15 pm, 35.15
Frontocentral EEG activity phase predicts subsequent visual target detection in healthy participants but not in schizophrenia
Eric Reavis\(^1,2\) (ereavis@ucla.edu), Jonathan Wynn\(^2,1\), Michael Green\(^1,2\); ¹University of California, Los Angeles, ²VA Greater Los Angeles Healthcare System

Talk 6, 6:30 pm, 35.16
Top-down effects on Cross-Modal Stimulus Processing: A Predictive Coding Framework
Talk 7, 6:45 pm, 35.17

A novel eye-tracking paradigm to investigate the focus of object-based attention
Lasyapriya Pidaparthi¹ (lasyapriya.pidaparthi@vanderbilt.edu), Frank Tong¹; ¹Vanderbilt University

Talk 8, 7:00 pm, 35.18

Reconstruction-guided attention improves the object recognition robustness of neural networks
Seoyoung Ahn¹ (ahnseoyoung@gmail.com), Hossein Adeli¹, Gregory Zelinsky¹; ¹Stony Brook University

Color, Light and Materials: Cones to cognition

Talk Session: Sunday, May 21, 2023, 5:15 – 7:15 pm EDT, Talk Room 2
Moderator: Karen Schloss, University of Wisconsin

Talk 1, 5:15 pm, 35.21

Psychophysical and image-based characterization of macular pigment using structured light
Andrew E. Silva¹ (a8silva@uwaterloo.ca), Connor Kapahi²,³, David G. Cory³,⁴, Mukhit Kulmaganbetov⁴, Melanie Mungalsingh¹, Taranjit Singh⁴, Benjamin Thompson¹,⁴, Dmitry A. Pushin²,³,⁴, Dusan Sarenac³,⁴; ¹School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada, ²Department of Physics and Astronomy, University of Waterloo, Waterloo, ON, Canada, ³Institute for Quantum Computing, University of Waterloo, Waterloo, ON, Canada, ⁴Centre for Eye and Vision Research, 17W Science Park, Hong Kong

Talk 2, 5:30 pm, 35.22

A deep convolutional neural network trained to infer surface reflectance is deceived by mid-level lightness illusions
Jaykishan Patel¹ (jay96@my.yorku.ca), Alban Flachot¹, Javier Vazquez-Corral², David H. Brainard², Thomas S. A. Wallis³, Marcus A. Brubaker¹, Richard F. Murray¹; ¹York University, ²Universitat Autònoma de Barcelona, ³University of Pennsylvania, ⁴Technische Universität Darmstadt

Talk 3, 5:45 pm, 35.23

Dynamic achromatic color computation based on fixational eye movements and edge integration
Michael Rudd¹ (mrudd@unr.edu); ¹University of Nevada, Reno

Talk 4, 6:00 pm, 35.24

Color discrimination and chromatic balance perception after adaptation to natural and color-reflected scenes.
Beata Wozniak¹, John Maule¹, Anna Franklin¹, Jenny Bosten¹; ¹University of Sussex
Talk 5, 6:15 pm, 35.25

Predicting gloss sensitivity across variations in surface shape, illumination and viewpoint

Jacob R. Cheeseman\(^1\) (jacob.cheeseman@psychol.uni-giessen.de), James A. Ferwerda\(^2\), Takuma Morimoto\(^1,3\), Roland W. Fleming\(^1,4\), \(^1\)Justus Liebig University Giessen, \(^2\)Rochester Institute of Technology, \(^3\)University of Oxford, \(^4\)Center for Mind, Brain and Behavior, Marburg, Germany.

Talk 6, 6:30 pm, 35.26

Object-based computations for color constancy

Laysa Hedjar\(^1\) (laysa.hedjar@psychol.uni-giessen.de), Raquel Gil Rodríguez\(^1\), Matteo Toscani\(^2\), Dar’ya Guarnera\(^3\), Giuseppe Claudio Guarnera\(^3,4\), Karl R. Gegenfurtner\(^1\); \(^1\)Justus-Liebig-Universität Gießen, Germany, \(^2\)Bournemouth University, UK, \(^3\)Norwegian University of Science and Technology, Gjøvik, Norway, \(^4\)University of York, UK.

Talk 7, 6:45 pm, 35.27

How do people map colors to concepts? Modeling assignment inference as evidence accumulation

Kushin Mukherjee\(^1\) (kmukherjee2@wisc.edu), Laurent Lessard\(^2\), Karen B. Schloss\(^1\); \(^1\)University of Wisconsin-Madison, \(^2\)Northeastern University.

Talk 8, 7:00 pm, 35.28

Lexical effects on remembered colors

Delwin Lindsey\(^1\) (lindsey.43@osu.edu), Prutha Deshpande\(^1\), Angela Brown\(^1\); \(^1\)The Ohio State University.

---

Spatial Vision

Talk Session: Monday, May 22, 2023, 8:15 – 9:45 am EDT, Talk Room 1
Moderator: Dennis Levi, UC Berkeley

Talk 1, 8:15 am, 41.11

How do visual abilities relate to each other?

Simona Garobbio\(^1\) (simona.garobbio@epfl.ch), Marina Kunchulia\(^2\), Michael H. Herzog\(^1\); \(^1\)EPFL, \(^2\)Free University of Tbilisi.

Talk 2, 8:30 am, 41.12

Spatial Frequency Maps in Human Visual Cortex: A Replication and Extension

Jiyeong Ha\(^1\) (jiyeong.ha@nyu.edu), William Broderick\(^2\), Kendrick Kay\(^3\), Jonathan Winawer\(^1\); \(^1\)New York University, \(^2\)Flatiron Institute, \(^3\)University of Minnesota.

Talk 3, 8:45 am, 41.13

Crowding does not follow Gestalt principles in foveal and amblyopic vision

John A. Greenwood\(^1\) (john.greenwood@ucl.ac.uk), Alexandra Zmuda\(^1\), Annegret H. Dahlmann-Noor\(^2,3\), Alexandra V. Kalpadakis-Smith\(^1\); \(^1\)University College London, London, UK, \(^2\)Moorfields Eye Hospital, London, UK, \(^3\)NIHR.
Talk 4, 9:00 am, 41.14

A texture statistics encoding model reveals sensitivity to mid-level features across human visual cortex

Margaret Henderson¹ (mmhender@cmu.edu), Michael Tarr¹, Leila Wehbe¹; ¹Carnegie Mellon University

Talk 5, 9:15 am, 41.15

Mapping triangles and breads in shape spaces: a big-data approach to estimating category distributions

Filipp Schmidt¹,² (filipp.schmidt@psychol.uni-giessen.de), Roland W. Fleming¹,²; ¹Justus Liebig University Giessen, ²Center for Mind, Brain and Behavior (CMBB), Marburg and Giessen

Talk 6, 9:30 am, 41.16

V4 neurons are tuned for local and non-local features of natural planar shape

Timothy D. Oleskiw¹,⁵ (oleskiw@nyu.edu), James H. Elder², Ingo Fruend⁶, Gerick M. Lee¹, Andrew Sutter¹,³, Anitha Pasupathy⁴, Eero P. Simoncelli¹,⁵, J. Anthony Movshon¹, Lynne Kiorpes¹, Najib Majaj¹; ¹New York University, ²York University, ³Drew University, ⁴University of Washington, ⁵Flatiron Institute Center for Computational Neuroscience, ⁶Verbally GmbH

Motion: Neural mechanisms, models, perception

Talk Session: Monday, May 22, 2023, 8:15 – 9:45 am EDT, Talk Room 2
Moderator: Alan Stocker, University of Pennsylvania

Talk 1, 8:15 am, 41.21

Laminar fMRI using spin-echo BOLD reveals feedback and feedforward representations in the human primary visual cortex

Royoung Kim¹,² (roespigas@gmail.com), SoHyun Han¹,², Won Mok Shim¹,²; ¹Center for Neuroscience Imaging Research, Institute for Basic Science (IBS), Suwon, Korea, Republic of., ²Sungkyunkwan University (SKKU), Suwon, Korea, Republic of.

Talk 2, 8:30 am, 41.22

Temporal evolution processes of a motion-induced position shift ride neural theta oscillations

Ryohei Nakayama¹, Kaoru Amano², Ikuya Murakami¹; ¹Department of Psychology, The University of Tokyo, ²Graduate School of Information Science and Technology, The University of Tokyo

Talk 3, 8:45 am, 41.23

Observed social touch is processed in a rapid, feedforward manner: an EEG-fMRI fusion study

Haemy Lee Masson¹ (haemy.leemasson@jhu.edu), Leyla Isik¹; ¹Johns Hopkins University

Talk 4, 9:00 am, 41.24
**What causes motion silencing**  
Qihan Wu¹ (qwu30@jhu.edu), Jonathan I. Flombaum¹；¹Johns Hopkins University

*Talk 5, 9:15 am, 41.25*

**Knowledge of other's biomechanical constraints shapes movement perception**  
Antoine Vandenberghe¹ (antoine.vandenberghe@uclouvain.be), Gilles Vannuscorps¹,²；¹Psychological Sciences Research Institute, Université catholique de Louvain, Belgium, ²Institute of Neuroscience, Université catholique de Louvain, Belgium

*Talk 6, 9:30 am, 41.26*

**Heading estimation from optic flow is Bayesian but strongly modulated by the size of the experimental response range**  
Linghao Xu¹ (linghaoxu11@gmail.com), Qi Sun²,³, Alan Stocker⁴；¹Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY, U.S.A, ²Department of Psychology, Zhejiang Normal University, Jinhua, P.R.C, ³Key Laboratory of Intelligent Education Technology and Application of Zhejiang Province, Zhejiang Normal University, Jinhua, P.R.C, ⁴Department of Psychology, University of Pennsylvania, Philadelphia PA, U.S.A

**Development: Disorders**

*Talk Session: Monday, May 22, 2023, 10:45 am – 12:15 pm EDT, Talk Room 1*

*Moderator: Shlomit Ben-Ami, MIT*

*Talk 1, 10:45 am, 42.11*

**Developmental changes in occipital alpha rhythms: Recording EEG during public engagement events**  
Gemma Learmonth¹ (gemma.learmonth@glasgow.ac.uk), Christopher Turner¹, Satu Baylan¹, Martina Bracco², Gabriela Cruz¹, Simon Hanzal¹, Marine Keime¹, Isaac Kuye¹, Deborah McNeill¹, Zika Ng¹, Mircea van der Plas¹, Manuela Ruzzoli³, Jelena Trajkovic¹, Domenica Veniero⁴, Sarah Wale¹, Sarah Whear¹, Gregor Thut¹；¹University of Glasgow, Scotland, ²Hôpital de la Pitié Salpêtrière, Paris, France, ³Basque Center on Cognition Brain and Language (BCBL), Donostia/San Sebastian, Spain, ⁴University of Nottingham, UK

*Talk 2, 11:00 am, 42.12*

**Reliable and predictive non-perceptual representations in primary visual cortex during attempts at visual imagery in aphantasia**  
Xinyu Zhang¹, Shuai Chang¹, Joel Pearson², Ming Meng¹；¹South China Normal University, ²The University of New South Wales

*Talk 3, 11:15 am, 42.13*

**Responses to non-linguistic auditory transients in the medial geniculate nucleus are diagnostic for dyslexia in individual subjects**  
Keith Schneider¹ (keithas@udel.edu), Qianli Meng²；¹University of Delaware

*Talk 4, 11:30 am, 42.14*

**The impact of cerebral visual impairment on school related competences in...**
elementary school children

Sara Monteiro¹ (sara.monteiro@uni.lu), Géraldine Hipp², Pascale Esch¹, Sonja Ugen¹; ¹Luxembourg Centre for Educational Testing, University of Luxembourg, ²Centre pour le Développement des Compétences relatives à la Vue, MENJE

Talk 5, 11:45 am, 42.15

Development of biological motion perception: Insights from late-sighted children

Shlomit Ben-Ami¹,² (shlomit@mit.edu), Chetan Ralekar¹, Dhun Verma³, Kashish Tiwari³, Mrinalini Yadav³, Priti Gupta³,⁴, Pragya Shah³, Suma Ganesh⁵, Nikolaus F. Troje⁴, Pawan Sinha¹; ¹MIT Department of Brain and Cognitive Sciences, Cambridge, MA, USA, ²Sagol School of Neuroscience, School of Psychological Sciences, Tel-Aviv University, Tel-Aviv, Israel, ³The Project Prakash Center, Delhi, India, ⁴Amarnath and Shashi Khosla School of Information Technology, Indian Institute of Technology, Delhi, India, ⁵Department of Ophthalmology, Dr. Shroff’s Charity Eye Hospital, Delhi, India, ⁶York University, Toronto, Canada

Talk 6, 12:00 pm, 42.16

Reduced perception-action dissociation in children with amblyopia

Zoha Ahmad¹ (zohahmad@my.yorku.ca), Krista Kelly², Erez Freud¹; ¹York University, ²Retina Foundation of the Southwest

3D: Disparity and shape

Talk Session: Monday, May 22, 2023, 10:45 am – 12:15 pm EDT, Talk Room 2

Moderator: Fulvio Domini, Brown University

Talk 1, 10:45 am, 42.21

Warping a disparity field: cooperation between shading and disparity for sparsely defined surfaces

Celine Aubuchon¹ (celine.d.aubuchon@gmail.com), Jovan Kemp¹, Fulvio Domini¹; ¹Brown University

Talk 2, 11:00 am, 42.22

Disparity modulations from both fixational vergence and version contribute to stereopsis

Yuanhao H. Li¹ (yli162@u.rochester.edu), Janis Intoy¹, Jonathan D. Victor², Michele Rucci¹; ¹University of Rochester, ²Weill Cornell Medical College

Talk 3, 11:15 am, 42.23

Stereoscopic slant contrast revisited

Clara Wang¹ (clara.wang@mail.mcgill.ca), Yoel Yakobi¹, Frederick Kingdom¹; ¹McGill University

Talk 4, 11:30 am, 42.24

Cardinal viewpoints of 3D objects predicted by 2D optical flow model

Emma E.M. Stewart¹ (emma.e.m.stewart@gmail.com), Roland W. Fleming¹,³, Alexander C. Schütz²,³; ¹Justus-Liebig University Giessen, Germany, ²University of Marburg, Germany, ³Center for Mind, Brain and Behavior,
Universities of Marburg and Giessen, Germany

**Talk 5, 11:45 am, 42.25**

**Humans and 3D neural field models make similar 3D shape judgements**
Thomas OConnell¹ (tpo@mit.edu), Tyler Bonnen², Yoni Friedman¹, Ayush Tewari¹, Josh Tenenbaum¹, Vincent Sitzmann¹, Nancy Kanwisher¹; ¹MIT, ²Stanford University

**Talk 6, 12:00 pm, 42.26**

**SimpleXR: An open-source Unity toolbox for simplifying vision research using augmented and virtual reality**
Justin Kasowski¹, Michael Beyeler¹; ¹University of California, Santa Barbara

### Plasticity and Learning 2

**Talk Session: Tuesday, May 23, 2023, 8:15 – 9:45 am EDT, Talk Room 1**
**Moderator: Biyu He, NYU**

**Talk 1, 8:15 am, 51.11**

**Mapping the invariance properties of perceptual priors in one-shot perceptual learning**
Ayaka Hachisuka¹ (ah5385@nyu.edu), Jonathan D. Shor¹, Xujin C. Liu², Eric K. Oermann³, Biyu J. He¹; ¹New York University Grossman School of Medicine, ²New York University Tandon school of engineering, ³New York University Langone Health

**Talk 2, 8:30 am, 51.12**

**Masking that disrupts late phases of visual processing eliminates location specificity of visual perceptual learning**
Yusuke Nakashima¹ (yusuke_nakashima@brown.edu), Yuka Sasaki¹, Takeo Watanabe¹; ¹Brown University

**Talk 3, 8:45 am, 51.13**

**Alterations in Orientation-Selective Early Visual Neural Functions Are Associated With Reduced Orientation-Dependent Surround Suppression In Schizophrenia**
Samuel Klein¹ (klei0742@umn.edu), Collin Teich¹, Eric Rawls¹, Cheryl A. Olman¹, Scott R. Sponheim¹,²; ¹University of Minnesota-Twin Cities, Departments of Psychology and Psychiatry, ²Minneapolis Veterans Affairs Medical Center

**Talk 4, 9:00 am, 51.14**

**Comparing retinotopic maps of children and adults reveals a late-stage change in how V1 samples the visual field**
Marc Himmelberg¹, Ekin Tünçok¹, Jesse Gomez², Kalanit Grill-Spector³, Marisa Carrasco¹, Jonathan Winawer¹; ¹New York University, ²Princeton University, ³Stanford University

**Talk 5, 9:15 am, 51.15**

**A neural network model of category-learning induced transfer of visual perceptual learning**
Binocular Vision

**Talk Session: Tuesday, May 23, 2023, 8:15 – 9:45 am EDT, Talk Room 2**

**Moderator: Johannes Burge, University of Pennsylvania**

**Talk 1, 8:15 am, 51.21**

**Vergence anomalies are associated with impaired stereopsis in the central visual field**

Aidan Gauper¹ (gauper@berkeley.edu), Suzanne McKee¹, Dennis Levi², Preeti Verghese¹; ¹Smith-Kettlewell Eye Research Institute, ²UC Berkeley

**Talk 2, 8:30 am, 51.22**

**Retinal eccentricity strongly modulates how interocular delays are impacted by image differences**

Callista Dyer¹, Johannes Burge¹,²,³; ¹University of Pennsylvania, ²Neuroscience Graduate Group, University of Pennsylvania, ³Bioengineering Graduate Group, University of Pennsylvania

**Talk 3, 8:45 am, 51.23**

**Does contrast adaptation influence the Pulfrich phenomenon?**

Aymen Sahal¹, Alexandre Reynaud¹, Robert Hess²; ¹Department of Ophthalmology and Visual Sciences, McGill University, ²McGill Vision Research Unit

**Talk 4, 9:00 am, 51.24**

**Coarse-to-fine interaction on perceived depth in compound grating**

Pei-Yin Chen¹ (d02227102@ntu.edu.tw), Chien-Chung Chen¹,², Shin'ya Nishida³,⁴; ¹Department of Psychology, National Taiwan University, ²Center for Neurobiology and Cognitive Science, National Taiwan University, Taipei, Taiwan, ³Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, ⁴NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation

**Talk 5, 9:15 am, 51.25**

**MEG Reveals Distinct Dorsal and Ventral Streams for Binocular Rivalry Dominance and Suppression**

Janine Mendola¹ (janine.mendola@mcgill.ca), Elizabeth Bock², Jeremy Fesi¹, Jason Da Silve Castenheira², Sylvain Baillet²; ¹Department of Ophthalmology and Vision Sciences, McGill University, Montreal, QC H9G 1A4, ²Department of Neurology and Neurosurgery and the McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University

**Talk 6, 9:30 am, 51.26**

**Population models of binocular disparity tuning predict the direction of perceived
depth in correlated and anticorrelated random dot stereograms
Paul Hibbard¹ (phibbard@essex.ac.uk), Jordi Asher¹; ¹University of Essex

Visual Memory: Space, time, features, objects

Talk Session: Tuesday, May 23, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1
Moderator: Brian Scholl, Yale University

Talk 1, 10:45 am, 52.11
A signal-detection model evaluates feature dependence in visual long-term memory for real-world objects
Igor Utochkin¹ (iutochkin@uchicago.edu), Daniil Grigorev²; ¹University of Chicago, ²HSE University

Talk 2, 11:00 am, 52.12
Deriving the Representational Space and Memorability of Object Concepts and Features
Meng-Chien Lee¹ (mlee26@uchicago.edu), Marc G. Berman¹, Wilma A. Bainbridge¹, Andrew J. Stier¹; ¹University of Chicago

Talk 3, 11:15 am, 52.13
Individual preferences for space or time in visual working memory are related to spatial and temporal abilities and persist over months
Anna Heuer¹ (anna.heuer@hu-berlin.de), Martin Rolfs¹; ¹Department of Psychology, Humboldt-Universität zu Berlin, Germany

Talk 4, 11:30 am, 52.14
Micro-timing of iconic memory readout
Karla Matic¹,², Issam Tafech¹, John-Dylan Haynes¹,²,³,⁴; ¹Charité—Universitätsmedizin Berlin, ²Max Planck School of Cognition, ³Humboldt-Universität zu Berlin, ⁴German Center for Neurodegenerative Diseases, ⁵Technische Universität Dresden

Talk 5, 11:45 am, 52.15
The “unfinishedness” of dynamic events is spontaneously extracted in visual processing: A new 'Visual Zeigarnik Effect'
Joan Danielle K. Ongchoco¹ (joan.ongchoco@yale.edu), Kimberly W. Wong¹, Brian Scholl¹; ¹Yale University

Talk 6, 12:00 pm, 52.16
Lingering distractor representations bias memory reports
Ziyao Zhang¹ (ziyaopsy@gmail.com), Jarrod A. Lewis-Peacock¹; ¹The University of Texas at Austin

Talk 7, 12:15 pm, 52.17
It’s a match! Visual template matching enhances concurrent task processing
Yi Ni Toh¹ (tohxx011@umn.edu), Vanessa G. Lee; ¹University of Minnesota Twin-Cities
Object Recognition: Categories, neural mechanisms

Talk Session: Tuesday, May 23, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2
Moderator: Arash Afraz, NIMH/NIH

Talk 1, 10:45 am, 52.21
Preserved visual categorical coding in the ventral occipito-temporal cortex despite transient early blindness and permanent alteration in the functional response of early visual regions
Olivier Collignon¹, Mohamed Rezk², Xiaqing Gao³, Junghyun Nam⁴, Zhong-Xu Liu⁵, Terri Lewis⁶, Daphne Maurer⁷, Stefania Mattioni⁸; ¹UCLouvain, ²HES-SO Valais-Wallis, The Sense Innovation and Research Center, ³Zhejiang University, China, ⁴University of Toronto, ⁵McMaster University, ⁶Ghent University

Talk 2, 11:00 am, 52.22
Perceptography: Revealing the causal contribution of the inferior temporal cortex to visual perception.
Elia Shahbazi¹ (elia.shahbazi@nih.gov), Timothy Ma², Arash Afraz¹; ¹National Institutes of Health, ²Center for Neural Science, New York University

Talk 3, 11:15 am, 52.23
Both mOTs-words and pOTs-words prefer emoji stimuli over text stimuli during a reading task
Alexia Dalski¹,² (alexia.dalski@uni-marburg.de), Holly Kular³, Julia G. Jorgensen³, Kalanit Grill-Spector³,⁴, Mareike Grotheer¹,²; ¹Department of Psychology, Philipps-Universität Marburg Germany, ²Center for Mind, Brain and Behavior – CMBB, Philipps-Universität Marburg and Justus-Liebig-Universität Giessen, Germany, ³Department of Psychology, Stanford University, USA, ⁴Wu Tsai Neurosciences Institute, Stanford University, USA

Talk 4, 11:30 am, 52.24
Objects, faces, and spaces
Heida Maria SIGURDARDOTTIR¹,³ (heidasi@hi.is), Inga María Ólafsdóttir²,³; ¹University of Iceland, ²Reykjavik University, ³Icelandic Vision Lab

Talk 5, 11:45 am, 52.25
THINGS-drawings: A large-scale dataset containing human sketches of 1,854 object concepts
Judith E. Fan¹ (judithfan@gmail.com), Kushin Mukherjee², Holly Huey¹, Martin N. Hebart³,⁴, Wilma A. Bainbridge⁵; ¹University of California, San Diego, ²University of Wisconsin-Madison, ³Justus Liebig University, Giessen, Germany, ⁴Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ⁵University of Chicago

Talk 6, 12:00 pm, 52.26
Uncovering neural-based visual-orthographic representations from mental imagery
Shouyu Ling¹,² (shouyu.ling@mail.utoronto.ca), Lorna García Pentón³, Blair C. Armstrong¹,³, Andy C.H. Lee¹,⁴,
Putative excitatory and inhibitory neurons in the macaque inferior temporal cortex play distinct roles in core object recognition

Sachi Sanghavi¹, Kohitij Kar²; ¹University of Wisconsin–Madison, ²York University

Eye Movements: Neural processes and models

Talk Session: Tuesday, May 23, 2023, 2:30 – 4:15 pm EDT, Talk Room 1
Moderator: Robert McPeek, SUNY

Object-based saccadic enhancement of superior colliculus activity

Christopher Conroy¹ (cconroy@sunyopt.edu), Hossein Adeli², Abe Leite², Gregory J. Zelinsky², Robert M. McPeek¹; ¹SUNY College of Optometry, ²Stony Brook University

Relating trial-to-trial variability in superior colliculus visual responses to saccadic reaction time variability

Carlotta Trottenberg¹ (c.trottenberg@gmail.com), Ziad Hafed¹; ¹University of Tübingen

Neural subpopulations in marmoset area MTC but not MT show extra-retinal tuning for saccade direction

Amy Bucklaew¹ (amy_bucklaew@urmc.rochester.edu), Shanna Coop², Jude Mitchell¹,²; ¹Neuroscience Graduate Program, University of Rochester, ²Brain and Cognitive Sciences, University of Rochester

Visual landmark information is multiplexed with target information in the visual responses of prefrontal gaze centres.

Vishal Bharmauria¹ (bhav2501@yorku.ca), Adrian Schütz², Xiaogang Yan¹, Hongying Wang¹, Frank Bremmer², John Douglas Crawford¹; ¹Centre for Vision Research (CVR) and Vision: Science to Applications (VISTA), York University, ²Department of Neurophysics, Phillips Universität Marburg and Center for Mind, Brain and Behavior – CMBB, Philipps-Universität Marburg and Justus-Liebig-Universität Giessen

One Preferred Retinal Locus to rule them all: A fine dissection of the PRL in space and time

Josselin Gautier¹,² (josselingautier@gmail.com), Norick R. Bowers²,³, Martin S. Banks², Austin Roorda²; ¹CHNO des Quinze-Vingts, Inserm-DGOS CIC 1423, F-75012 Paris, ²Herbert Wertheim School of Optometry and Vision
Science, University of California Berkeley, Justus-Liebig-Universität Gießen, Germany

Talk 6, 3:45 pm, 54.16

**Sinusoidal Smooth Pursuit After Childhood Hemispherectomy**

Maria Z. Chroneos¹,² (mzchrone@andrew.cmu.edu), Shawn M. Willet², Sophia Robert¹, J. Patrick Mayo², Marlene Behrmann²,¹; ¹Carnegie Mellon University, ²University of Pittsburgh

Talk 7, 4:00 pm, 54.17

**The eyes as a window to internal fluctuations in global brain state**

Richard Johnston¹,²,³ (richardjohnston@cmu.edu), Matthew A. Smith¹,²,³; ¹Department of Biomedical Engineering, Carnegie Mellon University, Pittsburgh, USA, ²Carnegie Mellon Neuroscience Institute, Carnegie Mellon University, Pittsburgh, USA, ³Center for the Neural Basis of Cognition, Carnegie Mellon University, Pittsburgh, USA

---

**Scene Perception**

**Talk Session: Tuesday, May 23, 2023, 2:30 – 4:15 pm EDT, Talk Room 2**

**Moderator: Dirk B. Walther, University of Toronto**

Talk 1, 2:30 pm, 54.21

**Feedback processing shapes the categorical organization of the ventral stream**

Yuanfang Zhao¹, Simen Hagen¹, Marius Peelen¹; ¹Donders Institute for Brain, Cognition and Behavior

Talk 2, 2:45 pm, 54.22

**The occipital place area (OPA) supports walking in 8-year-olds, not 5-year-olds**

Yaelan Jung¹ (jung.yaelan@gmail.com), Daniel D. Dilks; ¹Emory University

Talk 3, 3:00 pm, 54.23

**Biased population coding of visual orientation in the human brain**

William J. Harrison¹ (willjharr@gmail.com), Paul M. Bays², Reuben Rideaux¹; ¹The University of Queensland, ²University of Cambridge

Talk 4, 3:15 pm, 54.24

**Distinct early and late neural mechanisms regulate feature-specific sensory adaptation in the human visual system**

Reuben Rideaux¹ (reuben.rideaux@gmail.com), Rebecca K West², Dragan Rangelov¹, Jason B Mettingley¹,²; ¹Queensland Brain Institute, University of Queensland, ²School of Psychology, University of Queensland

Talk 5, 3:30 pm, 54.25

**Making memorability of scenes better or worse by manipulating their contour properties**

Seohee Han¹ (seohee.han@mail.utoronto.ca), Morteza Rezanejad¹, Dirk B. Walther¹; ¹University of Toronto

Talk 6, 3:45 pm, 54.26
Object-based attention during scene perception elicits boundary contraction in memory
Elizabeth H. Hall\textsuperscript{1,2} (ehhall@ucdavis.edu), Joy J. Geng\textsuperscript{1,2}; \textsuperscript{1}University of California, Davis, \textsuperscript{2}Center for Mind and Brain

\textit{Talk 7, 4:00 pm, 54.27}

A retinotopic reference frame structures communication between visual and memory systems
Adam Steel\textsuperscript{1} (adamdanielsteel@gmail.com), Brenda Garcia\textsuperscript{1}, Edward Silson\textsuperscript{2}, Caroline Robertson\textsuperscript{1}; \textsuperscript{1}Dartmouth College, \textsuperscript{2}University of Edinburgh

Attention: Models, individual differences, reward, capture, shifting

\textit{Talk Session: Tuesday, May 23, 2023, 5:15 – 7:15 pm EDT, Talk Room 1}
Moderator: Viola Stoermer, Dartmouth

\textit{Talk 1, 5:15 pm, 55.11}

Statistical Characterization of Attention Effects on the Contrast Tuning Functions Of Neuronal Populations of a Convolutional Neural Network
Sudhanshu Srivastava\textsuperscript{1} (sudhanshu@ucsb.edu), Miguel P. Eckstein\textsuperscript{1}; \textsuperscript{1}University of California, Santa Barbara

\textit{Talk 2, 5:30 pm, 55.12}

How does cognitive arousal modulate visuocortical contrast response functions?
Sam Ling\textsuperscript{1} (samling@bu.edu), Louis Vinke\textsuperscript{1,2}, Joseph McGuire\textsuperscript{1}, Jasmine Pan\textsuperscript{1}; \textsuperscript{1}Boston University, \textsuperscript{2}Massachusetts General Hospital

\textit{Talk 3, 5:45 pm, 55.13}

Spatial suppression transfers across eye position in retinotopic coordinates
Seah Chang\textsuperscript{1} (chang.2127@osu.edu), Julie D. Golomb\textsuperscript{1}; \textsuperscript{1}Department of Psychology, The Ohio State University

\textit{Talk 4, 6:00 pm, 55.14}

Precise Memories and Imprecise Guidance: Why attention is guided towards colors that I’m certain I didn’t see
Jamal Williams\textsuperscript{1} (jrwilliams@ucsd.edu), Timothy Brady\textsuperscript{1}, Viola Stoermer\textsuperscript{2}; \textsuperscript{1}University of California, San Diego, \textsuperscript{2}Dartmouth College

\textit{Talk 5, 6:15 pm, 55.15}

The ins and outs of attention – shifting within and between perception and working memory
Daniela Gresch\textsuperscript{1}, Sage E.P. Boettcher\textsuperscript{1}, Freek van Ede\textsuperscript{2}, Anna C. Nobre\textsuperscript{1}; \textsuperscript{1}University of Oxford, \textsuperscript{2}Vrije Universiteit Amsterdam
Talk 6, 6:30 pm, 55.16

**A thalamo-cortical blackboard model for coordinating visual mental routines**

Daniel Schmid¹ (daniel-1.schmid@uni-ulm.de), Daniel A. Braun¹, Heiko Neumann¹; ¹Institute of Neural Information Processing, Ulm University

Talk 7, 6:45 pm, 55.17

**Reward variance outweighs reward value in modulating capture of visual attention**

Mike Le Pelley¹ (m.lepelley@unsw.edu.au), Daniel Pearson¹,², Amy Chong¹; ¹University of New South Wales, Sydney, Australia, ²University of Sydney, Australia

Talk 8, 7:00 pm, 55.18

**Contextual information triggers attentional selection: a dissociation between semantic priming and response compatibility effects**

Mor Sasi¹ (mor.sasi1992@gmail.com), Noa Izhaki¹, Nitzan Micher¹, Dominique Lamy¹,²; ¹School of Psychological Sciences, Tel Aviv University, ²Sagol School of Neuroscience, Tel Aviv University

**Visual Working Memory**

**Talk Session: Tuesday, May 23, 2023, 5:15 – 7:15 pm EDT, Talk Room 2**

**Moderator: David Alais, University of Sydney**

Talk 1, 5:15 pm, 55.21

**Efficient Measurement of Dynamic Visual Working Memory**

Garry Kong¹ (kong.garry@aoni.waseda.jp), Isabelle Frisken², Gwenisha J. Liaw², Robert Keys², David Alais²; ¹Waseda University, ²University of Sydney

Talk 2, 5:30 pm, 55.22

**No Evidence for a Visual Testing Effect for Novel, Meaningless Objects**

Anna C. McCarter¹ (acmccarter@umass.edu), David E. Huber¹, Rosemary A. Cowell¹; ¹University of Massachusetts at Amherst

Talk 3, 5:45 pm, 55.23

**Nature of the memory trace left by the previous trial in an interceptive task**

Esaú Sirius Ventura Pupo¹ (esau.sirius@gmail.com), Raymundo Machado de Azevedo Neto², André Mascioli Cravo¹; ¹Federal University of ABC (UFABC), São Paulo, Brazil, ²Brain Institute, Hospital Israelita Albert Einstein, São Paulo, Brazil

Talk 4, 6:00 pm, 55.24

**Sequential neuronal spikes as units of cortical coding across visual perception and working memory**

Weizhen Xie¹ (weizhen.xie@nih.gov), Kareem Zaghloul; ¹National Institute of Neurological Disorders and Stroke, National Institutes of Health
Talk 5, 6:15 pm, 55.25

**Parietal impact on visual working memory representation in occipito-temporal cortex**

Yaoda Xu¹ (xucogneuro@gmail.com); ¹Yale University

Talk 6, 6:30 pm, 55.26

**Action consequences guide visual working memory use**

Andre Sahakian¹ (a.sahakian@uu.nl), Surya Gayet¹, Chris Paffen¹, Stefan Van der Stigchel¹; ¹Utrecht University, the Netherlands

Talk 7, 6:45 pm, 55.27

**A model of composing working memories from hierarchical representations acquired through visual learning**

Brad Wyble¹ (bwyble@gmail.com), Ryan O'Donnell¹, Shekoo Hedayati¹; ¹Penn State University

Talk 8, 7:00 pm, 55.28

**Individual variation in optimal encoding strategy in visual working memory**

Yin-ting Lin¹ (lin.3913@osu.edu), Andrew B. Leber¹; ¹The Ohio State University

**Perceptual Decision-Making and Confidence**

*Talk Session: Wednesday, May 24, 2023, 8:15 – 10:00 am EDT, Talk Room 1
Moderator: Doby Rahnev, Georgia Tech*

**Talk 1, 8:15 am, 61.11**

**Reward and Response Accuracy Trade-offs in Visuomotor Decisions Under Uncertainty**

Jami Pekkanen¹ (jami.pekkanen@helsinki.fi), Tero Hakala², Samuel Tuhkanen¹, Lauri Oksama², Otto Lappi¹; ¹University of Helsinki, Finland, ²National Defence University, Finland, ³University of Turku, Finland

**Talk 2, 8:30 am, 61.12**

**Expectations and cognitive control modulate history biases in perceptual decisions**

Gizay Ceylan¹, David Pascucci¹; ¹EPFL

**Talk 3, 8:45 am, 61.13**

**Beyond the ideal observer: internal states of uncertainty modulate sequential biases in perceptual decisions**

Ayberk Ozkirli¹ (ayberk.ozkirli@gmail.com), David Pascucci¹; ¹Laboratory of Psychophysics, Brain Mind Institute, School of Life Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

**Talk 4, 9:00 am, 61.14**

**Confidence Determines the Strength of Visual Serial Dependence**

Geoff Gallagher¹ (gg16048@bristol.ac.uk), Christopher Benton²; ¹University of Bristol

**Talk 5, 9:15 am, 61.15**

**A common computational principle for decision-making with confidence, expectation**
and reward
yunxuan zheng¹ (yzheng447@gatech.edu), Kai Xue², Medha Shekhar³, Dobromir Rahnev⁴; ¹School of Psychology, Georgia Institute of Technology, Atlanta, GA, US

Talk 6, 9:30 am, 61.16
Population activity in sensory cortex informs confidence in a perceptual decision
Zoe Boundy-Singer¹ (zoebsinger@utexas.edu), Corey Ziemba¹, Robbe Goris¹; ¹Center for Perceptual Systems, UT Austin

Talk 7, 9:45 am, 61.17
Effects of surrounding sensory evidence on central visual confidence
Alan L. F. Lee¹ (alan.lf.lee@gmail.com), Jenny W. S. Chiu¹, Jocelyn W. K. Lam¹; ¹Lingnan University, Hong Kong

Visual Search
Talk Session: Wednesday, May 24, 2023, 8:15 – 10:00 am EDT, Talk Room 2
Moderator: Monica Castelhano, University British Columbia

Talk 1, 8:15 am, 61.21
Don't hide the instruction manual: A dynamic trade-off between using internal and external templates during visual search
Alex Hoogerbrugge¹, Christoph Strauch¹, Tanja Nijboer¹, Stefan Van der Stigchel¹; ¹Experimental Psychology, Helmholtz Institute, Utrecht University, The Netherlands

Talk 2, 8:30 am, 61.22
Memory Compression Facilitates Search for Multiple Targets
Andrew Clement¹ (andrew.clement@tamu.edu), Brian Anderson¹; ¹Texas A&M University

Talk 3, 8:45 am, 61.23
Looking for details: Fine-grained visual search at foveal scale
Sanjana Kapisthalam¹ (skapisth@ur.rochester.edu), Martina Poletti¹; ¹University of Rochester, ²Center for vision science at University of Rochester

Talk 4, 9:00 am, 61.24
Alpha oscillations in early visual cortex support visual search through inhibition of neuronal excitability to Target and Distractor features
Katharina Duecker¹ (katharina.duecker@gmail.com), Kimron L Shapiro¹, Simon Hanslmayr², Jeremy Wolfe³, Yali Pan¹, Ole Jensen¹; ¹Centre for Human Brain Health, School of Psychology, University of Birmingham, UK, ²Centre for Cognitive Neuroimaging, School of Neuroscience and Psychology, University of Glasgow, UK, ³Brigham and Women's Hospital, Boston, MA USA, ⁴Harvard Medical School, Boston, Massachusetts, USA

Talk 5, 9:15 am, 61.25
Rank and career level are inadequate measures of perceptual expertise in radiology
Talk 6, 9:30 am, 61.26

**Expectations Versus Reality: The Effect of Semantic Knowledge on Statistical Learning**

Laura Sikun Li (20sl101@queensu.ca), Hannah Lum Smith¹, Karolina Krzyś¹, Carrick C. Williams², Monica S. Castelhano¹; ¹Queen's University, ²California State University San Marcos

Talk 7, 9:45 am, 61.27

**Stop pretending your trials are independent: Learn more from your data with asymptotic regression**

Alasdair Clarke¹ (a.clarke@essex.ac.uk), Amelia Hunt²; ¹Department of Psychology, University of Essex, ²School of Psychology, University of Aberdeen

---

Attention: Spatial, featural, temporal, divided

**Talk Session: Wednesday, May 24, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1**

**Moderator: Alex White, Barnard College**

---

**Talk 1, 10:45 am, 62.11**

*Spatial attention effects dominate over temporal attention*

Helena Palmieri¹ (hp808@nyu.edu), Marisa Carrasco¹; ¹Department of Psychology, New York University, New York, NY, 10003, USA, ²Center for Neural Science, New York University, New York, NY, 10003, USA

**Talk 2, 11:00 am, 62.12**

*Expectation modulates the reflexive allocation of covert spatial attention*

Michael Grubb¹ (michael.grubb@trincoll.edu), Nick Crotty¹, Nicole Massa¹, Dagoberto Tellez¹, Alex White²; ¹Trinity College, ²Barnard College

**Talk 3, 11:15 am, 62.13**

*Feature-based attention has a spatial gradient*

Nika Adamian¹ (nika.adamyan@gmail.com), Søren Krogh Andersen¹; ¹University of Aberdeen, ²University of Southern Denmark

**Talk 4, 11:30 am, 62.14**

*Attraction of population receptive fields is determined by precision of attention*

Sumiya A. Sheikh Abdirashid¹²³ (s.abdirashid@spinozacentre.nl), Tomas Knapen¹²³, Serge O. Dumoulin¹²³⁴; ¹Spinoza Centre for Neuroimaging, Amsterdam, Netherlands, ²Netherlands Institute for Neuroscience, Amsterdam, Netherlands, ³Experimental and Applied Psychology, Vrije Universiteit, Amsterdam, Netherlands, ⁴Experimental Psychology, Helmholtz Institute, Utrecht University, Utrecht, Netherlands

**Talk 5, 11:45 am, 62.15**
Dissociable neuronal substrates of visual feature attention and working memory in the primate brain
Diego Mendoza-Halliday¹ (diegomendoz@yahoo.com), Haoran Xu¹, Robert Desimone¹; ¹Massachusetts Institute of Technology

Talk 6, 12:00 pm, 62.16

Simultaneous changes in acetylcholine (ACh) levels and neural activity during goal-directed behavior in non-human primates.
Fabian Munoz Silva¹,² (fm2481@columbia.edu), Maria Bompolaki³,⁴, Alex Dranovsky³,⁴, Vincent Ferrera¹,²; ¹Department of Neuroscience, Columbia University, ²Zuckerman Mind Brain Behavior Institute, Columbia University, ³Department of Psychiatry, Columbia University, ⁴New York State Psychiatric Institute, New York

Talk 7, 12:15 pm, 62.17

The attentionally-modulated posterior parietal area V6A in macaques and humans
Patrizia Fattori¹ (patrizia.fattori@unibo.it), Marina De Vitis¹, Matteo Filippini¹, Kostas Hadjidimitrakis¹, Claudio Galletti¹; ¹University of Bologna, Italy

Face Perception: Neural mechanisms and models

Talk Session: Wednesday, May 24, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2
Moderator: Richard Krauzlis, NIH

Talk 1, 10:45 am, 62.21
Reconstructing the neurodynamics of face perception during real world vision in humans using intracranial EEG recordings
Arish Alreja¹ (aalreja@andrew.cmu.edu), Michael J. Ward², Jhair A. Colan³, Qianli Ma¹, R. Mark Richardson⁴, Louis-Phillipe Morency¹, Avniel S. Ghuman³; ¹Carnegie Mellon University, ²University of California, Los Angeles, ³University of Pittsburgh, ⁴Harvard University and Massachusetts General Hospital

Talk 2, 11:00 am, 62.22
Rapid face preference during visual object processing by the primate superior colliculus
Gongchen Yu¹ (yugongchen1990@gmail.com), Leor Katz¹, Christian Quaia¹, Adam Messinger¹, Richard Krauzlis¹; ¹Laboratory of Sensorimotor Research, National Eye Institute, NIH

Talk 3, 11:15 am, 62.23
Comparing iEEG responses and deep networks with Bayesian statistics challenges the view that lateral face-selective regions are specialized for facial expression recognition over identity recognition
Emily Schwartz¹ (schwarex@bc.edu), Arish Alreja²,³,⁴, R. Mark Richardson⁵,⁶, Avniel Ghuman³,⁴, Stefano Anzellotti¹; ¹Boston College, ²Carnegie Mellon University, ³University of Pittsburgh, ⁴University of Pittsburgh Medical Center, ⁵Massachusetts General Hospital, ⁶Harvard Medical School

Talk 4, 11:30 am, 62.24
Reversed contributions of visual and semantic information to the representations of familiar faces in perception and memory
Adva Shoham (advashoham@mail.tau.ac.il), Idan Daniel Grosbard, Yuval Navon, Galit Yovel; Tel Aviv University

Talk 5, 11:45 am, 62.25

A NARROW BAND OF IMAGE DIMENSIONS IS CRITICAL FOR THE LEARNING AND RECOGNITION OF FACE IDENTITY
Dan Rogers (dr737@york.ac.uk), Tim Andrews, Mila Mileva; The University of York, The University of Plymouth

Talk 6, 12:00 pm, 62.26

A familiar face and person processing area in the human temporal pole
Ben Deen (benjamin.deen@gmail.com), Winrich A Freiwald; Rockefeller University, Tulane University

Talk 7, 12:15 pm, 62.27

Thinking outside of the face network: face recognition deficits are related to reduced connectivity between high-level face areas and non-face-selective sensory, memory, and social processing regions
Alison Campbell (alison.candice.campbell@gmail.com), Xian Li, Michael Esterman, Joseph DeGutis; Boston Attention and Learning Laboratory, VA Boston Healthcare System, Boston, MA, Department of Psychiatry, Boston University School of Medicine, Boston MA, Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD, National Center for PTSD, VA Boston Healthcare System, Boston, MA, Department of Psychiatry, Harvard Medical School, Boston MA
Poster Sessions

Saturday Morning Posters, May 20, 8:30 am

- Plasticity and Learning: Clinical applications
- Binocular Vision: Clinical
- Spatial Vision: Perceptual properties in health and disease
- Attention: Temporal, divided
- Attention: Endogenous, exogenous
- Visual Search: Features, models, neural
- Aging

Saturday Afternoon Posters, May 20, 2:45 pm

- Color, Light and Materials: Lightness, brightness
- Color, Light and Materials: Cognition
- Attention: Top-down, reward
- Face Perception: Individual differences
- Face Perception: Emotion
- Undergraduate Just-In-Time 1

Sunday Morning Posters, May 21, 8:30 am

- Attention: Spatial
- Face Perception: Experience, learning, and expertise
- Visual Search: Eye movements, attention, individual differences
- Attention: Cueing, inattention
- Attention: Objects

Sunday Afternoon Posters, May 21, 2:45 pm

- Development: Neural mechanisms and eye movements
- Eye Movements: Visual Impairment
- Motion: Local, in depth
- Attention: Individual differences
- Visual Working Memory: Interference
- Visual Working Memory: Attention, load and capacity
- Perceptual Decision-Making: Confidence

Pavilion

- Motion: Models, neural mechanisms
- Temporal Processing: Duration, timing perception
- Perception & Action: Reaching, aiming, interception
- Perception and Action: Navigation and flow in virtual environments
- Multisensory Processing: Visuo-haptic
- Visual Memory: Long term memory

- Attention: Affect, threat
- Eye Movements: Perception, remapping
- Object Recognition: Reading
- Binocular Vision: Disparity processing
- 3D: Cues and integration
- Perception and Action
- Spatial Vision: Crowding and eccentricity

- Perceptual Decision-Making
- Color, Light and Materials: Surfaces, materials, constancy
- Object Recognition: Neural organization and representations
- Object Recognition: Visual preference, features and objects
- Eye Movements: Saccades and pursuit
- Spatial Vision: Neural mechanisms

- Plasticity and Learning: Statistical learning
- Plasticity and Learning: Tasks, models
- Binocular Vision: Integration and rivalry
- 3D: Shape
- Perception and Action: Navigation and flow
- Face Perception: Insights from artificial neural networks
- Perceptual Organization: Shape, figure/ground, occlusion
Monday Morning Posters, May 22, 8:30 am

Object Recognition: Models
Scene Perception: Spatiotemporal factors
Attention: Temporal, templates, memory
Attention: Features
Image Preference, Statistics and Aesthetics
Undergraduate Just-In-Time 2

Tuesday Morning Posters, May 23, 8:30 am

Object Recognition: Categories
Object Recognition: Neural mechanisms
Face Perception: Wholes, parts, configurations, and features
Face Perception: Development and disorders
Face Perception: Social cognition

Pavilion
Eye Movements: Individual differences, novel measurement
Visual Working Memory: Serial dependence
Visual Working Memory: Neural mechanisms
Visual Working Memory: Space, features, objects
Multisensory Processing: Audio-visual, visuo-vestibular

Tuesday Afternoon Posters, May 23, 2:45 pm

Plasticity and Learning: Cortex
Plasticity and Learning: Sensorimotor
Perception & Action: Grasping
3D: Spatial layout and VR/AR
Eye Movements: Scenes, VR, 3D
Motion: Optic flow
Perceptual Organization: Contour integration, common fate

Pavilion
Object Recognition: Categories
Object Recognition: Neural mechanisms
Face Perception: Wholes, parts, configurations, and features
Face Perception: Development and disorders
Face Perception: Social cognition

Wednesday Morning Posters, May 24, 8:30 am

Temporal Processing: Neural mechanisms and models
Object Recognition: Features and parts
Visual Memory: Capacity, encoding, retrieval
Spatial Vision: Texture
Visual Search: Attention
Visual Search: Strategies, efficiencies

Pavilion
Perception and Action: Perception of Human Actions and Bodies
Eye Movements: Fixation
Eye Movements: Attention, cognition, neural processes
Perceptual Organization: Symmetry, preference, ensembles
Scene Perception: Natural image statistics
Scene Perception: Models
Scene Perception: Virtual environments
Saturday Morning Posters in Banyan Breezeway

Plasticity and Learning: Clinical applications

23.301 Reading styles modulate perceptual roles of the hands in bimanual braille reading

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Santani Teng\(^1\), Manfred Mackeben\(^1\); \(^1\)Smith-Kettlewell Eye Research Institute

23.302 Preserved blind-field visual abilities are most prevalent very early after stroke-induced V1 damage

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Berkeley Fahrenthold\(^1\) (berkeley_fahrenthold@urmc.rochester.edu), Matthew Cavanaugh\(^1\), Jingyi Yang\(^1\), Bryan Redmond\(^1\), Krystel Huxlin\(^1\); \(^1\)University of Rochester

23.303 Neural and behavioral correlates of evidence accumulation in human click-based echolocation

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Haydee Garcia-Lazaro\(^1\) (haydee@ski.org), Santani Teng\(^1\); \(^1\)The Smith-Kettlewell Eye Research Institute

23.304 The Impact of Vision Restoration on Visual Cortical Structure

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Noelle Stiles\(^1\) (nstiles@usc.edu), Jeiran Choupan\(^2\), Hossein Ameri\(^1\), Vivek Patel\(^3\), Yonggang Shi\(^2\); \(^1\)Department of Ophthalmology, University of Southern California, 1450 San Pablo Street, Los Angeles, CA, 90033, USA, \(^2\)Stevens Neuroimaging and Informatics Institute, University of Southern California, 2025 Zonal Avenue, Los Angeles, CA, 90033, USA, \(^3\)Department of Ophthalmology, University of California, Irvine, 850 Health Sciences Road, Irvine, CA, 92697, USA

23.305 Functional and structural adaptations to lifelong lack of cone input and its implications for gene therapy outcomes

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Roni Maimon-Mor\(^1,2\) (r.maimon@ucl.ac.uk), Mahtab Farahbakhsh\(^1,2\), Elaine Anderson\(^1,3,4\), Andy Rider\(^1\), John Greenwood\(^2\), Mohamed Katta\(^1,5\), Pete Jones\(^1,6\), Samuel Schwarzkoep\(^2,7\), Geraint Rees\(^3,4\), Michel Michaelides\(^1,5\), Tessa Dekker\(^1,2\); \(^1\)UCL Institute of Ophthalmology, University College London, London EC1V 9EL, UK, \(^2\)Experimental Psychology, University College London, London WC1H 0AP, UK, \(^3\)UCL Institute of Cognitive Neuroscience, University College London, London WC1N 3AZ, UK, \(^4\)The Wellcome Centre for Human Neuroimaging, University College London, London WC1N 3AR, UK, \(^5\)Moorfields Eye Hospital, London EC1V 2PD, UK, \(^6\)Division of Optometry and Visual Sciences; School of Health Sciences; City, University of London, London EC1V 0HB, UK, \(^7\)School of Optometry and Vision Science, University of Auckland, Auckland 1023, New Zealand

23.306 Training perceptual-cognitive abilities improves simulated driving performance
23.307  Mesopic reading is further exacerbated by glaucomatous damage

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Traci-Lin Goddin¹, David Friedman², Cynthia Owsley³, MiYoung Kwon¹; ¹Department of Psychology, Northeastern University, Boston, MA, ²Massachusetts Eye and Ear, Harvard Medical School, Boston, MA, ³Department of Ophthalmology and Visual Sciences, University of Alabama at Birmingham, Birmingham, AL

23.308  Evaluating the performance of Bayesian adaptive qReading in low vision

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Deyue Yu¹ (deyueyu@gmail.com), Zhong-Lin Lu²,³; ¹Ohio State University, ²NYU Shanghai, ³New York University, New York

23.309  Personalized Spatial Remapping of Text Improves Word Reading in the Presence of Simulated Central Field Loss

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Colin S. Flowers¹ (flowe186@umn.edu), Arda Fidanci¹, Chasity Foster², Gordon E. Legge¹, Stephen Engel¹; ¹University of Minnesota Twin Cities, ²Iowa State University

23.310  Visual snow is affected by contrast adaptation

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Samantha Montoya¹ (monto112@umn.edu), Carter Mulder¹, Michael Lee¹, Michael-Paul Schallmo¹, Stephen Engel¹; ¹University of Minnesota

23.312  The Impact of Sub-Foveal Scotomas on Visual Perception and Fine Oculomotor Behavior

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ashley M. Clark¹ (aclark43@ur.rochester.edu), Benjamin Moon¹, Samantha K. Jenks¹, Sanjana Kapisthalam¹, Martina Poletti¹; ¹University of Rochester

Binocular Vision: Clinical

23.313  Behavioral and EEG Measures of Binocular Rivalry in People with Schizophrenia

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Kamar S. Abdullahi¹ (abdul447@umn.edu), Samantha A. Montoya¹, Kyle W. Killebrew¹, Hannah R. Moser¹, Scott R. Sponheim¹,², Michael-Paul Schallmo¹; ¹University of Minnesota, ²Minneapolis VA Medical Center

23.314  Glaucomatous neurodegeneration spares the cortical mechanism underlying binocular disparity integration across the visual field

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Guido Maiello¹ (guido_maiello@yahoo.it), MiYoung Kwon²; ¹Justus Liebig University Giessen, ²Northeastern University

**23.315 Evaluation of motion perception and binocular vision following dichoptic treatment for amblyopia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Akosua K. Asare¹, Cindy Ho², Hee Yeon Im¹, Deborah Giaschi¹; ¹University of British Columbia, Vancouver, Canada, ²Mount Pleasant Optometry Centre, Vancouver, Canada

**23.316 Testing the effect of dichoptic surround masking in amblyopic vision**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rinku Sarkar¹, Frederick A.A. Kingdom¹, Alexandre Reynaud¹; ¹Department of Ophthalmology & Visual Sciences, McGill University

**23.317 Contrast sensitivity channels in amblyopia: a meta-factor-analysis**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Alexandre Reynaud¹ (alexandre.reynaud@mail.mcgill.ca), Seung Hyun Min²; ¹Department of Ophthalmology and Visual Sciences, McGill University, Montreal, Canada, ²School of Ophthalmology and Optometry, Affiliated Eye Hospital, State Key Laboratory of Ophthalmology, Optometry and Vision Science, Wenzhou Medical University, Wenzhou, China

**23.318 Nonparametric Bayesian Estimation of Contrast Sensitivity Functions**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dennis Barbour¹ (dbarbour@wustl.edu), Dom Marticorena¹, Shohaib Shaffey¹, Quinn Wai Wong¹, Ken Wilbur¹, Samyukta Jayakumar², Pinakin Davey³, Jake Gardner⁴, Aaron Seitz²; ¹Washington University in St. Louis, ²University of California, Riverside, ³Western University of Health Sciences, ⁴University of Pennsylvania

**23.319 Developing a novel dichoptic reading application for the treatment of amblyopia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nicole A. Dranitsaris¹ (nicoledranitsaris16@gmail.com), Ken Chong¹, Robert F. Hess¹, Alexandre Reynaud¹; ¹McGill Vision Research, Department of Ophthalmology and Visual Sciences, McGill University

**23.320 Bringing continuous target-tracking to the clinic: Steps toward developing new tools for assessing visual dysfunction**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Stephanie M. Shields¹ (smshields@utexas.edu), Sabeen Toranian¹, Peter V. Sguigna², Ethan Meltzer³, Lawrence K. Cormack¹; ¹The University of Texas at Austin, ²The University of Texas Southwestern Medical Center, ³Dell Medical School at The University of Texas at Austin

**23.321 tCFS: A new ‘CFS tracking’ paradigm reveals uniform suppression depth regardless of target complexity or salience**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jacob Coorey¹, David Alais¹, Randolph Blake², Matthew Davidson¹; ¹The University of Sydney, ²Vanderbilt
Digital Stereo Test (DST): Static stereopsis assessment in simulated and real depth-deficit patients

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Kritika Lohia¹ (kritika.lohia@ee.iitd.ac.in), Rijuul Saurabh Soans¹,², Dharam Raj³, Rohit Saxena³, Tapan Kumar Gandhi¹; ¹Department of Electrical Engineering, Indian Institute of Technology-Delhi, New Delhi, India, ²Laboratory of Experimental Ophthalmology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands, ³Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences-Delhi, New Delhi, India

Validation of Angular Indication Measurement (AIM) Stereoacuity

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Sonisha Neupane¹ (s.neupane@northeastern.edu), Jan Skerswetat¹, Peter J. Bex¹; ¹Northeastern University

Refractive Error measured with AIM (Angular Indication Measurement) Visual Acuity

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Jingyi He¹ (j.he@northeastern.edu), Jay Bijesh Shah¹, Jan Skerswetat¹, Peter J. Bex¹; ¹Northeastern University, USA

Spatial Vision: Perceptual properties in health and disease

Behavioral and EEG measures of contrast surround suppression mechanisms in people with schizophrenia

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Hannah R. Moser¹, Kamar S. Abdullahi¹, Amaavi Miriyagalla¹, Samantha A. Montoya¹, Kyle W. Killebrew¹, Scott R. Sponheim²,¹, Michael-Paul Schallmo¹; ¹University of Minnesota, ²Minneapolis VA Medical Center

Functional Dysconnectivity of the Secondary Visual Network in Schizophrenia

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Brian Keane¹ (brian_keane@urmc.rochester.edu), Luke Hearne², Yonatan Abrham¹, Deanna Barch³, Michael Cole², Bart Krekelberg², Steven Silverstein¹; ¹University of Rochester, ²Rutgers University, Newark, ³Washington University in St. Louis

Further examination of the pulsed- and steady-pedestal paradigms under hypothetical parvocellular- and magnocellular-biased conditions

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Jaeseon Song¹ (jaeseon.song@uga.edu), Bruno Breitmeyer², James Brown¹; ¹University of Georgia, ²University of Houston

Discovery of sharper orientation-tuned surround suppression for oblique than cardinal orientations provides support for a multi-stage model of normalization

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Hui-Yuan Miao¹ (huiyuan.miao@vanderbilt.edu), David Coggan¹, Frank Tong¹,²; ¹Department of Psychology, Vanderbilt University, ²Vanderbilt Vision Research Center

23.329 Radial bias alters perceived motion direction
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Melisa Menceloglu¹ (melisa_menceloglu@brown.edu), Ken Nakayama², Joo-Hyun Song¹; ¹Brown University, ²University of California, Berkeley

23.330 Contextual Modulation of Sensory Encoding in the Tilt Illusion
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ling-Qi Zhang¹ (zlqzcc@gmail.com), Alan A. Stocker¹; ¹University of Pennsylvania

23.331 Enhanced Luminance Improves Salience of Objects if it also Enhances Contrast
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Andrew Freedman¹ (freed055@umn.edu), Gordon Legge¹; ¹University of Minnesota

Attention: Temporal, divided

23.332 Voluntary temporal attention enhances sensory representations
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jiating Zhu¹ (jtszhu@bu.edu), Karen Tian¹,², Marisa Carrasco², Rachel Denison¹,²; ¹Boston University, ²New York University

23.333 Neural correlates of inducing fatigue with a sustained attention task
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Simon Hanzal¹ (s.hanzal.1@research.gla.ac.uk), Gemma Learmonth¹, Gregor Thut¹, Monika Harvey¹; ¹University of Glasgow

23.334 Attention and expectation jointly modulate the temporal dynamics of visual processing
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Nicholas Crotty¹ (ncrotty@trincoll.edu), Nicole Massa¹, Dagoberto Tellez¹, Alex White², Michael Grubb¹; ¹Trinity College, ²Barnard College

23.335 Comparing auditory and visual temporal attention
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Juneau Wang¹ (juneauw@bu.edu), Christopher Conroy², Rachel Denison¹; ¹Boston University, ²SUNY College of Optometry

23.336 Endogenous temporal attention benefits performance even under temporal uncertainty
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Aysun Duyar¹ (aysun@nyu.edu), Shiyang Ren¹, Marisa Carrasco¹; ¹New York University
23.337 Multitasking without task switching
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jumi Lee¹ (heiheidi245@gmail.com), Oakyoon Cha¹; ¹Sungshin Women’s University

23.338 Effect of temporal interruptions on sequential sensory integration
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Mengting Fang¹ (mtfang@sas.upenn.edu), Jiang Mao¹, Tobias Donner², Alan Stocker¹; ¹University of Pennsylvania, ²University Medical Center Hamburg-Eppendorf

23.339 Distributed and focused visuo-spatial attention deficits in children with dyslexia
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Simone Gori¹ (simone.gori@unibg.it), Sandro Franceschini²,³, Sara Bertoni¹,², Giovanna Puccio², Cristiano Termine³, Andrea Facoetti²; ¹University of Bergamo, ²University of Padua, ³University of Insubria

23.340 Multifocal attention within a single hemifield results in broad tuning of attention across relevant and irrelevant locations.
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Mart Ozkan¹ (mert.ozkan.gr@dartmouth.edu), Viola Stoermer¹; ¹Dartmouth College

23.341 No evidence that attentionally demanding dual tasks disrupt visual processing capacity in a gamified orientation-averaging task
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Wing Hong Fu¹ (w.fu@westernsydney.edu.au), Gabrielle Weidemann¹, Tijl Grootswagers¹, Larissa Cahill², John Cass¹; ¹The MARCS Institute for Brain, Behaviour and Development, Western Sydney University, ²Defence Sciences Technology Group

23.342 Diversity of items within attentional window explains “cost-free” diversity judgments
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Suyeon Kim¹ (eoddysl@naver.com), Oakyoon Cha¹; ¹Sungshin Women’s University

23.343 Useful field of view performance in healthy aging is linked to visuo-perceptive processes
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Romain Hassan Omar¹ (romain.hassan.omar@umontreal.ca), Adunni Garber², Geneviève Rodrigue³, Aarlene Khan⁴; ¹University of Montreal

23.344 Gender comparison of perceptual-cognitive learning in young athletes.
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Isabelle Legault¹ (isabelle.legault.3@gmail.com), Jocelyn Faubert²; ¹Collège Lionel Goulx, ²Faubertlab, Universite de Montreal

Attention: Endogenous, exogenous
23.345  Alteration of endogenous visualspatial attention orientation during 10 Hz or 40 Hz transcranial alternating current stimulation to right temporoparietal junction and occipital visual areas

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ashley Mendoza¹ (anm190@scarletmail.rutgers.edu), Ashley Yttredahl¹, Yinghua Liu¹, David Smith², Bart Krekelberg¹; ¹Rutgers University - Newark, ²Temple University

23.346  Resolution of Exogenous Shifts of Attention is Impacted by Peripheral Stimuli Eccentricity

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Chris Reynolds¹ (reynol89@uwm.edu), Adam Greenberg²,³; ¹University of Wisconsin Milwaukee, ²Medical College of Wisconsin, ³Marquette University

23.347  Task-irrelevant abrupt onsets disrupt value-related information processing

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Carly Chak¹, Emily Machniak¹, Barry Giesbrecht¹; ¹University of California, Santa Barbara

23.348  Presaccadic attention sharpens visual acuity around the visual field

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Yuna Kwak¹ (yuna.kwak@nyu.edu), Nina Hanning¹,², Marisa Carrasco¹; ¹New York University, ²Humboldt-Universität zu Berlin

23.349  The effects of high-resolution exogenous attention on different spatial frequencies in the fovea

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Yue Zhang¹ (yue.zhang604@gmail.com), Martina Poletti¹; ¹University of Rochester

23.350  Adaptation modulates the effect of covert exogenous attention in early visual cortex – A TMS study

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Hsing-Hao Lee¹ (hsinghaolee@nyu.edu), Antonio Fernández¹, Marisa Carrasco¹; ¹New York University

23.351  Distinct modulation of FEF during orienting and reorienting of exogenous and endogenous attention

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Elena Younhye Ock¹ (elena.ock@nih.gov), Cassie Joynes², Tina T. Liu¹, Elisha P. Merriam¹; ¹Laboratory of Brain and Cognition, National Institute of Mental Health, NIH, Bethesda, MD, USA, ²Lab of Behavioral Neuroscience, National Institute on Aging, NIH, Bethesda, MD

23.352  Exogenous spatial attention shift induced by up and downvection direction

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Xuanru Guo¹ (guoxuanru1101@gmail.com), Takeharu Seno¹, Stephen Palmisano²; ¹Faculty of Design, Kyushu University, ²School of Psychology, University of Wollongong
Visual Search: Features, models, neural

23.353 Using Probe Trials Reduces the Low-Prevalence Effect but Target Generalization is Limited
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Mark W. Becker¹ (becker54@msu.edu), Andrew Rodriguez¹; ¹Michigan State University

23.354 Differences in similarity effects across target categories
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Anatolii Evdokimov¹, Arryn Robbins¹; ¹University of Richmond

23.355 Incidental capture from working memory depends on remembered feature dimension
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Daniel Thayer¹ (danielthayer@ucsb.edu), Thomas Sprague¹; ¹University of California, Santa Barbara

23.356 Computational modeling of 3D team foraging to understand human behaviour and cognition
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Anna Hughes¹ (anna.hughes@essex.ac.uk), Russell Cohen Hopping², Alasdair Clarke¹; ¹University of Essex, ²DEVCOM Army Research Laboratory

23.357 Perceptual span can explain stimulus-specific cultural differences in visual search
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jun Saiki¹ (saiki.jun.8e@kyoto-u.ac.jp); ¹Kyoto University

23.358 Measuring competitive oscillatory activity in visual cortical populations using fMRI
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Reebal Rafeh¹ (reebal.rafeh@gmail.com), Geoffrey Ngo², Lyle E Muller³, Ravi S Menon⁴,⁵, Ali R Khan⁵, Taylor W Schmitz², Marieke Mur⁶,⁷; ¹Neuroscience Graduate Program, Western University, ²Department of Physiology and Pharmacology, Schulich School of Medicine & Dentistry, Western University, ³Department of Mathematics, Faculty of Science, Western University, ⁴Centre for Functional and Metabolic Mapping, Robarts Research Institute, Western University, ⁵Department of Medical Biophysics, Schulich School of Medicine & Dentistry, Western University, ⁶Department of Psychology, Faculty of Social Science, Western University, ⁷Department of Computer Science, Faculty of Science, Western University

23.359 Tracking the Time-Course of Attentional Sharpening using EEG
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ryan S. Williams¹ (ryanscott.williams@mail.utoronto.ca), Jay Pratt¹, Susanne Ferber¹; ¹University of Toronto

23.360 Revisiting the electrophysiological correlates of feature analysis during visual search
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

John McDonald¹ (jmcd@sfu.ca), Daniel Tay¹; ¹Simon Fraser University

23.361 Brain settings across free-viewing tasks: from Exploration to Visual Search and Hybrid Search

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Juan Esteban Kamienkowski¹ (jkamienk@gmail.com), Damian Care¹, Joaquin Ezequiel Gonzalez¹, Anthony J Ries², Matias J Ison³; ¹University of Buenos Aires & National Scientific and Technical Research Council, Argentina, ²U.S. Army Research Laboratory, United States, ³University of Nottingham, United Kingdom

23.362 An ERP investigation of sensory responses preceding first-saccade onsets during visual search.

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ryan V. Ringer¹ (ryan.ringer@ucdenver.edu), Tamar Japaridze¹,², Carly J. Leonard¹; ¹University of Colorado, Denver, ²University of Pennsylvania

23.363 Reward Maps Predict Target-present and Target-absent Visual Search

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Gregory J. Zelinsky¹ (gregory.zelinsky@stonybrook.edu), Seoyoung Ahn¹, Zhibo Yang¹, Yupei Chen¹, Sounak Mondal¹, Minh Hoai¹, Dimitrios Samaras¹; ¹Stony Brook University

23.364 Diagnostic images for Alzheimer’s Disease show distinctions in biomarker status and scene-related functional activity between patients and healthy controls

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Yuetong Bai¹ (ytbai@uchicago.edu), Wilma Bainbridge¹; ¹University of Chicago

23.365 Impact of aging and stroke on a new computerized test of visual attention in far space

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Stéphanie Rossit¹ (s.rossit@uea.ac.uk), Hannah Browning¹, Allan Clark¹, Valerie Pomeroy¹, Helen Morse¹; ¹University of East Anglia, Norwich, UK

23.366 Incidental learning of frequent target features speeds early attentional selection as indexed by the N2pc

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Kevin Ortego¹, Douglas Addleman¹, Viola Stoermer¹; ¹Dartmouth College

Aging

23.367 Visuospatial abilities over the lifespan in healthy adults

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Anne-Sophie Laurin¹ (anne-sophie.laurin@umontreal.ca), Jane Abdo¹, Linda Gabriela Dunoyer¹, Denise Y. Henriques², Marius T. Hart², Aarlenne Khan¹; ¹Université de Montréal, ²York University
23.368  Influence of Aging and Cognitive Load on Alpha-band Oscillation
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Catherine Reed¹ (clreed@cmc.edu), Heather Shipley¹, Chandlyr Denaro¹, Alan Hartley¹, Alison Harris¹; ¹Claremont McKenna College

23.369  Individual differences in dopamine neurotransmitter functioning shape age-related differences in oculomotor control
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jutta Billino¹ (jutta.billino@psychol.uni-giessen.de), Sophie Meißner¹; ¹Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

23.370  Impairment of Perceptual Inhibition in Older adults
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ali Pournaghdali¹ (pournagh@usc.edu), Teal Eich¹; ¹University of Southern California

23.371  Load dependent neural variability quenching during visual working memory is impaired in older adults
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Wen Wen¹, Frederik Baumgardt¹, Douglas Hazel¹, Peyton Berning¹, Vighnesh Viswanathan¹, Olivia Tween¹, Robert Reinhart¹; ¹Department of Psychological and Brain Sciences, Boston University

Saturday Morning Posters in Pavilion

Motion: Models, neural mechanisms

23.401  Strong interaction between low and high spatial frequencies using induced motion at short durations under binocular and dichoptic viewing.
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Omar Bachtoula¹ (omarbach@ucm.es), Ignacio Serrano-Pedraza¹,²; ¹Universidad Complutense de Madrid, ²Centre for Behaviour and Evolution, Newcastle University

23.402  Linking Intuitive Physics to Social Cognitive Attributions
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Sajjad Torabian Esfahani¹ (torabias@uci.edu), John A Pyles², Yujia Peng³, Hongjing Lu⁴, Emily D Grossman¹; ¹University of California, Irvine, ²University of Washington, ³Peking University, ⁴University of California, Los Angeles

23.403  Prediction of the direction of motion after-effect when the induction phase stimulus is multi-stable
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Juliette Lenouvel¹,² (juliette.lenouvel@grenoble-inp.fr), Alan Chauvin², Ronald Phlypo¹; ¹Univ. Grenoble Alpes, CNRS, Grenoble INP, GIPSA-lab (institute of engineering Univ. Grenoble Alpes), ²Univ. Grenoble Alpes, CNRS, LPNC
23.404  Modeling of Human Motion Perception Mechanism: A Simulation based on Deep Neural Network and Attention Transformer

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Zitang sun\(^1\) (sun.zitang.73u@st.kyoto-u.ac.jp), Yen-Ju Chen\(^1\), Yung-Hao Yang\(^1\), Shin'ya Nishida\(^{1,2}\); \(^1\)Cognitive Informatics Lab, Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, Japan, \(^2\)Human Information Science Laboratory, NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan

23.405  A simple non-linear neural summation model predicts basic and complex motion perception phenomena

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Raúl Luna\(^1\) (raul.luna@csic.es), Ignacio Serrano-Pedraza\(^2\), Marcelo Bertalmío\(^1\); \(^1\)Spanish National Research Council (CSIC), Institute of Optics, Madrid, Spain., \(^2\)Universidad Complutense de Madrid, Department of Experimental Psychology, Madrid, Spain.

23.406  Spatial summation for motion detection

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Joshua Solomon\(^1\) (j.a.solomon@city.ac.uk), Christopher Tyler\(^1\); \(^1\)City, University of London

23.407  Motion Extrapolation Across the Visual Periphery

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Tero Hakala\(^1\) (tero.hakala@aalto.fi), Jami Pekkanen\(^2\), Otto Lappi\(^2\), Samuel Tuhkanen\(^2\), Lauri Oksama\(^3\); \(^1\)Finnish National Defense University, Helsinki, Finland, \(^2\)University of Helsinki, Helsinki, Finland, \(^3\)University of Turku, Turku, Finland

23.408  Bayesian analysis of motion priors and speed discrimination in the periphery

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Amy Nguyen\(^1\), Michael Landy\(^2\), Eero Simoncelli\(^{2,3}\), Kathryn Bonnen\(^1\); \(^1\)Indiana University School of Optometry, \(^2\)New York University, \(^3\)Flatiron Institute, New York, NY

23.409  Using perception and short latency ocular-following responses (OFRs) to study early visual motion-detecting mechanisms.

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Boris Sheliga\(^1\) (bms@lsr.nei.nih.gov), Edmond FitzGibbon\(^1\); \(^1\)Laboratory of Sensorimotor Research, NEI, NIH

23.410  Natural-image–computable Bayesian model for 3D motion estimation

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Daniel Herrera\(^1\) (dherrera1911@gmail.com), Johannes Burge\(^{1,2,3}\); \(^1\)Department of Psychology, University of Pennsylvania, Philadelphia, PA, USA, \(^2\)Neuroscience Graduate Group, University of Pennsylvania, Philadelphia, PA, USA, \(^3\)Bioengineering Graduate Group, University of Pennsylvania, Philadelphia, PA, USA

23.411  Modeling fMRI responses to complex dynamic stimuli with two-stream convolutional networks

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Boris Penaloza¹ (bpenaloz@ur.rochester.edu), Sabyasachi Shivkumar¹, Gabor Lengyel¹, Gregory DeAngelis¹, Ralf Haefner¹; ¹University of Rochester

**Temporal Processing: Duration, timing perception**

23.413 Modality-independent biases in temporal processing

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jozsef Fiser¹,² (fiserj@ceu.edu), Linda Garami¹,²; ¹Department of Cognitive Science, Central European University, ²Center for Cognitive Computation, Central European University

23.414 Target-Tracking Retinal Stabilization for Studying Peripheral Motion Perception

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Anthony LoPrete¹ (aloprete@seas.upenn.edu), Johannes Burge¹; ¹University of Pennsylvania

23.415 Human visual sampling adaptation to the temporal structure of a dynamic environment

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jaume Boned¹ (jboned@ub.edu), López-Moliner Joan¹; ¹Vision and Control of Action (VISCA) Group, and Institut de Neurociències, Universitat de Barcelona

23.416 Adaptation-based duration distortion shows face category specificity

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Akira Sarodo¹, Kentaro Yamamoto², Katsumi Watanabe¹; ¹Waseda University, ²Kyushu University

23.417 Bi-phasic filter model can account for the Transient Twinkle Perception

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Chang yeong Han¹ (hcy0515@unist.ac.kr), Seonggyu Choe¹, Hyosun Kim², Oh-Sang Kwon¹; ¹Department of Biomedical Engineering, Ulsan National Institute of Science Technology, Ulsan 44919, South Korea, ²R&D center, Samsung Display, South Korea

23.418 The effect of visual affordance on perceived duration during motor action in virtual reality

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Sunny Jin¹ (sunnyjin41@gmail.com), Inci Ayhan¹; ¹Bogazici University, Istanbul, Turkey

23.419 A bouncing ball improves performance in time discrimination and production

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Anthony Bruno¹ (anthony_bruno@brown.edu), Leslie Welch¹; ¹Brown University
23.420 Time perception and emotion in a real-life human-robot swarm interaction  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Müge Cavdan¹ (muege.cavdan@psychol.uni-giessen.de), Julian Kaduk²,³, Argiro Vatakis⁴, Heiko Hamann²*, Knut Drewing¹*; ¹Justus Liebig University Giessen, Germany, ²University of Konstanz, Germany, ³University of Lübeck, Germany, ⁴Panteion University of Social and Political Sciences, Greece

23.421 Development of audio-tactile temporal binding with and without vision  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Maria Bianca Amadeo¹ (mariabianca.amadeo@iit.it), Alessia Tonelli¹, Walter Setti¹, Carolina Tammurello¹,², Claudio Campus¹, Monica Gori¹; ¹Italian Institute of Technology, ²Università degli studi di Genova

23.422 The perceived duration of peripheral stimuli does not differ between the inhibition and execution of saccades  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Alina Krug¹ (alina.krug@uni-ulm.de), Lisa Eberhardt, Anke Huckauf; ¹Ulm University

23.423 Does the visual system temporally demarcate the complex flow of liquids?  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Yuting Zhang¹, Tristan Yates¹, Ilker Yildirim¹; ¹Yale University

Perception & Action: Reaching, aiming, interception

23.424 Functional Brain Networks for Egocentric and Allocentric Memory-guided Reaching.  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Lina Musa¹,²,³, Amirhossein Ghaderi¹, Ying Chen, J. Douglas Crawford¹,²,³; ¹Centre for Vision Research, York University, Toronto, ON, Canada, ²Vision Science to Applications (VISTA), York University, Toronto, ON, Canada, ³York University, Toronto, ON, Canada

23.425 Influence of a visual landmark shift on memory-guided reaching in monkeys  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Jennifer Lin¹ (linj68@yorku.ca), Hongying Wang¹, Saihong Sun¹, Xiaogang Yan¹, John Douglas Crawford¹; ¹York University

23.426 Conflicting ordinal depth information interferes with visually-guided reaching  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Domenic Au¹ (domau@my.yorku.ca), Robert S. Allison¹, Laurie M. Wilcox¹; ¹York University

23.427 Assessment and recovery of visually guided reaching following cerebellar stroke.  
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Christopher L. Striemer¹,² (striemer@macewan.ca), Chella M. Robles¹, Britt Andeson³, Sean P. Dukelow⁴; ¹MacEwan University, Edmonton, Alberta, Canada, ²Neuroscience and Mental Health Institute, University of
Alberta, Edmonton, Alberta, Canada, University of Waterloo, Waterloo, Ontario, Canada, University of Calgary, Calgary, Alberta, Canada

**23.428 Effects of expertise and age on reaching movements guided by vision, memory and proprioception.**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Jose Reynoso¹ (jose_reynoso@urmc.rochester.edu), Emily Isenstein¹,²,³, Mariah Steele⁵, Khai Du⁶, Leonardo Benavides⁶, Ania Busza⁶, Duje Tadin¹,²,³,⁴; ¹Department of Brain and Cognitive Sciences, University of Rochester, ²Center for Visual Science, University of Rochester, ³Department of Neuroscience, University of Rochester, ⁴Department of Ophthalmology, University of Rochester, ⁵Program of Dance and Movement, University of Rochester, ⁶Department of Neurology, University of Rochester

**23.429 Developmental characteristics of visuomotor adaptation strategies in childhood**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Alexander Cook¹ (acook@psych.ubc.ca), Melissa Aziz¹, Ahad Zafar¹, Deborah Giaschi¹, Hee Yeon Im¹; ¹University of British Columbia

**23.430 Pointing at static targets in a virtual reality environment: performance of visually impaired vs. normally-sighted persons**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Vasiliki Myrodia¹, Aurélie Calabrèse¹, Ambre Denis-Noël¹, Frédéric Matonti², Pierre Kornprobst³, Eric Castet¹; ¹Aix-Marseille University, CNRS, LPC, Marseille, France, ²Centre Monticelli Paradis d’Ophtalmologie, Marseille, France, ³Université Côte d’Azur, Inria, France

**23.431 Effects of Spatial Congruence between Responses and Stimuli in Reachable and Unreachable Space**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Michael L. Paavola¹ (michael-paavola@uiowa.edu), J. Toby Mordkoff¹, Cathleen M. Moore¹; ¹University of Iowa

**23.432 Not all actions violate Weber’s law**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Francesco Ceccarini¹ (fc2284@nyu.edu), Ivan Camponogara¹, Robert Volcic¹; ¹New York University Abu Dhabi

**23.433 Continuous visual guidance of the moving hand**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Eli Brenner¹ (e.brenner@fbw.vu.nl), Jeroen B.J. Smeets¹; ¹Vrije Universiteit Amsterdam

**23.434 Predictability of object motion trajectory modulates information integration for continuous manual tracking**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Zhongting Chen¹ (ztchen@psy.ecnu.edu.cn), Yuqi You¹; ¹East China Normal University

**23.435 Cross recurrence analysis of a ball retrieval task in Virtual Reality**  
*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*
Balagopal Raveendranath (braveen@clemson.edu), Roshan Venkatakrishnan, Rohith Venkatakrishnan, Christopher Pagano, Sabarish Babu; Clemson University

23.436 An information-driven nonlinear dynamical model of manual lateral interception

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Danial Borooghani (danial.borooghani@univ-amu.fr), Remy Casanova, Frank T. J. M. Zaal; Aix Marseille Université, CNRS, France, Reinoud J. Bootsma; University Medical Center Groningen, The Netherlands

23.437 Examining the Affordance of Interceptability: What makes a ball interceptable or not?

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Samruddhi Damle (s.damle@rug.nl), Frank T. J. M. Zaal; University Medical Center Groningen, The Netherlands, Reinoud J. Bootsma; Aix Marseille Université, CNRS, France

Perception and Action: Navigation and flow in virtual environments

23.438 Allocentric spatial representations dominate when switching between real and virtual worlds

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Meaghan McManus (meaghan.mcmanus@psychol.uni-giessen.de), Franziska Seifert, Immo Schütz, Katja Fiehler; Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

23.439 Spatial learning of a virtual environment with and without an unoccluded vista view

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Ho Ming Chan, Jie Ding, Jeffrey Saunders; The University of Hong Kong

23.440 Unexpected Vection predicts the likelihood and severity of Sickness During HMD based Virtual Reality

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Joel Teixeira (jt629@uowmail.edu.au), Sebastien Miellet, Stephen Palmisano; University of Wollongong

23.441 Visual Collision Avoidance in a Crowd

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Kyra Veprek (kyraveprek24@gmail.com), William Warren; Brown University

23.442 Motion-in-depth uncertainty is not much worse than lateral uncertainty: evidence from continuous psychophysics

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Joan Teo; Universitat de Barcelona

23.443 Evidence for a hybrid model in moving target interception

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
**23.444** A variational autoencoder provides novel, data-driven features that explain functional brain representations in a naturalistic navigation task  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Cheol Jun Cho¹, Tianjiao Zhang¹, Jack L. Gallant¹; ¹UC Berkeley

**23.445** Visual Navigation Under High-Stress Conditions  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Aparv Varshney¹ (apurv@ucsb.edu), Mitch Munns¹, Justin Kasowski¹, Mantong Zhou¹, Chuanxiuyue He¹, Scott Grafton¹, Barry Giesbrecht¹, Mary Hegarty¹, Michael Beyeler¹; ¹University of California Santa Barbara

**23.446** Is optic flow used for steering to a goal?  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Nathaniel Powell¹, Youjin Oh¹, Dan Panfili¹, Mary Hayhoe¹; ¹University of Texas at Austin

**23.447** Optic flow density modulates corner-cutting behavior in a virtual reality driving task  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Arianna P. Giguere¹ (apg7742@rit.edu), Krystel R. Huxlin²,³, Brett R. Fajen⁴, Duje Tadin³, Gabriel J. Diaz¹,³; ¹Rochester Institute of Technology Center for Imaging Science, ²Flaum Eye Institute, University of Rochester Medical Center, ³University of Rochester Center for Visual Science, ⁴Rensselaer Polytechnic Institute Department of Cognitive Science

### Multisensory Processing: Visuo-haptic

**23.448** Localizing Visual Allodynia in Migraine  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Carson C Smith¹, Matthew Cummings¹, Laura I Van Key¹, Sarah M Haigh¹; ¹University of Nevada, Reno

**23.449** Decoding familiar visual object categories in the MU rhythm oscillatory response  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Fraser Smith¹ (fraser.smith@uea.ac.uk), Saber Sami¹, Kerri Bailey¹; ¹University of East Anglia

**23.450** Visual displacement judgments are biased by haptic cues within a flexible spatiotemporal window  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*

Nedim Goktepe¹ (goektepe@staff.uni-marburg.de), Knut Drewing², Alexander C. Schütz¹; ¹Philipps-Universität Marburg, ²Justus-Liebig-Universität Giessen

**23.451** Tap-and-pop and pip-and-pop: Tactile, auditory and audiotactile signals facilitate change detection of moving visual stimuli  
*Saturday, May 20, 2023, 8:30 am - 12:30 pm, Pavilion*
Bora Celebi (bora.celebi@psychol.uni-giessen.de), Müge Cavdan, Knut Drewing; Justus-Liebig University, Gießen, HapLab

23.452 Scale-based modulation of spatio-temporal integration processes during the exploration of embossed images

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Anchal Sharma (anchals@mit.edu), P.V.M. Rao, Srinivasan V., Pawan Sinha; Massachusetts Institute of Technology, Indian Institute of Technology Delhi

23.453 Cortical areas involved in imagery and haptic exploration of object size

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Samantha Sartin (samantha.sartin@unitn.it), Federica Danaj, Fabio Del Giudice, Irene Sperandio, Simona Monaco; University of Trento, University of Regensburg

23.454 Characterizing and decoding visual percepts of real objects in a blind individual using fMRI

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Jesse Breedlove (jbreedlo@umn.edu), Logan Dowdle, Thomas Naselaris, Cheryl Olman; University of Minnesota

23.455 The correlation of tactile properties of fabrics between visual and touch.

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Qinyuan Li (cm18ql@leeds.ac.uk), Kaida Xiao, Michael Pointer, Ningtao Mao; University of Leeds

23.456 The Effect of Visual Movement Information on Texture Discrimination Performance and Movement Control in Active Touch

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Didem Katircilar (didem.katircilar@psychol.uni-giessen.de), Knut Drewing; Justus Liebig University Giessen

23.457 Prior static visual information on material properties increases the efficiency of a subsequent haptic exploration

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Michaela Jeschke (michaela.jeschke@psychol.uni-giessen.de), Knut Drewing; Justus-Liebig University Gießen

23.458 Phantom tactile sensations induced by double vision

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Robert Volcic, Mariam Amer; New York University Abu Dhabi

23.459 Decoding the Mass of Familiar Objects from MEG

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

William De Faria (wdefaria@mit.edu), Pramod R.T., Nancy Kanwisher; Massachusetts Institute of Technology

Visual Memory: Long term memory

23.460 Hippocampal and visual cortex contributions to resolving competition during
memory-guided attention
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Serra E Favila¹ (sef2177@columbia.edu), Mariam Aly¹; ¹Columbia University

23.461 Images viewed for longer durations are better remembered during naturalistic encoding
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Shaimaa masarwa¹, Olga Kreichman¹, Limor Brook¹, Sharon Gilaie-Dotan¹-²; ¹Bar Ilan University, ²UCL

23.462 Long-term memory for objects in real-world scenes: The effects of semantic consistency and task priorities
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Sara Spotorno¹ (sara.spotorno@durham.ac.uk), Sebastian Tustanowski²; ¹Psychology Department, Durham University, UK, ²School of Psychology, Keele University, UK

23.463 Long-term representations systematically bias ongoing perception
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Irene Echeverria-Altuna¹ (ireneetxeberria@gmail.com), Sage E.P. Boettcher¹, Anna C. Nobre¹; ¹University of Oxford

23.464 Memory augmentation with adaptive cognitive interfaces
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Julia Pruin¹, Wilma Bainbridge¹, Monica Rosenberg¹, Megan deBettencourt¹; ¹University of Chicago

23.465 Predictable learning demands enable direct down-regulation of visual long-term memory encoding
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Joseph M. Saito¹ (joseph.saito@mail.utoronto.ca), Keisuke Fukuda¹-²; ¹University of Toronto, ²University of Toronto Mississauga

23.466 The dependence (or independence) of object features in VLTM is a continuous, not a binary problem: The role of conceptual vs. perceptual features
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Nurit Gronau¹ (nuritgro@openu.ac.il), Rotem Avital-Cohen¹; ¹The Open University of Israel

23.467 Uncovering the dynamics of visual memory representations over time
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Eden zohar¹ (edenzohar04@gmail.com), Dekel Abeles¹, Stas Kozak¹, Nitzan Censor¹; ¹Tel Aviv University

23.468 Physical image properties influence image memorability in a category-dependent manner
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Sharon Gilaie-Dotan¹-² (shagido@gmail.com), Olga Kreichman¹, Limor Brook¹, Shaimaa Masarwa¹; ¹Bar Ilan University, ²UCL
23.469 Probabilistic encoding and well-calibratedness of long-term episodic memory
Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion
Dávid Magas\textsuperscript{1,2} (magas_david@phd.ceu.edu), József Fiser\textsuperscript{1,2}; \textsuperscript{1}Department of Cognitive Science, Central European University, \textsuperscript{2}Center for Cognitive Computation, Central European University

Saturday Afternoon Posters in Banyan Breezeway

Color, Light and Materials: Lightness, brightness

26.301 Separate normalization of ON / OFF channels is not enough to account for perceived brightness
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Joris Vincent\textsuperscript{1} (joris.vincent@tu-berlin.de), Marianne Maertens\textsuperscript{1}; \textsuperscript{1}Technische Universität Berlin

26.302 The role of rod and cone signals in mesopic brightness induction
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Pablo A. Barrionuevo\textsuperscript{1,2} (pbarrionuevo@herrera.unt.edu.ar), Alexander C. Schütz\textsuperscript{3}, Karl R. Gegenfurtner\textsuperscript{1}; \textsuperscript{1}Justus Liebig Universität Gießen, \textsuperscript{2}Consejo Nacional de Investigaciones Científicas y Técnicas, \textsuperscript{3}Philipps-Universität Marburg

26.303 The asymmetry between achromatic increments and decrements in perceptual scaling and discrimination
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Yangyi Shi\textsuperscript{1} (shi.yang@northeastern.edu), Rhea T. Eskew, Jr.\textsuperscript{1}; \textsuperscript{1}Northeastern University

26.304 Luminance and heterochromatic brightness
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Shuchen Guan\textsuperscript{1} (shuchen.guan@psychol.uni-giessen.de), Robert Ennis\textsuperscript{1}, Matteo Toscani\textsuperscript{2}, Jing Chen\textsuperscript{3}, Karl Gegenfurtnner\textsuperscript{1}; \textsuperscript{1}Justus-Liebig Universität Gießen, \textsuperscript{2}Bournemouth University, UK, \textsuperscript{3}Shanghai University of Sport, China

26.305 Effect of Background Color and Light Source Intensity on Lightness Discrimination Thresholds
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Devin Reynolds\textsuperscript{1} (djreynolds@aggies.ncat.edu), Vijay Singh\textsuperscript{1}; \textsuperscript{1}North Carolina Agricultural and Technical State University

26.306 Measuring lightness constancy with varying realism
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
David-Elias Künstle\textsuperscript{1} (david-elias.kuenstle@uni-tuebingen.de), Felix A. Wichmann\textsuperscript{1}; \textsuperscript{1}University of Tübingen

26.307 Discriminating color ensembles
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Jesse R. Macyczko\textsuperscript{1} (jrmacyczko@gmail.com), Michael A. Webster\textsuperscript{1}; \textsuperscript{1}University of Nevada, Reno
26.308 Can deep neural networks for intrinsic image decomposition model human lightness constancy?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Alban Flachot¹ (flachot.alban@gmail.com), Jaykishan Patel¹, Khushbu Patel¹, Tom S. A. Wallis², Marcus Brubaker¹, David H. Brainard³, Richard F. Murray¹; ¹York University, ²TU Darmstadt, ³University of Pennsylvania

26.309 Eye closure elicits qualitatively distinct responses within the lateral geniculate nucleus and visual cortex
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Nicholas Cicero¹,²,³ (ngcicero@bu.edu), Michaela Klimova², Laura Lewis¹,³, Sam Ling¹,²; ¹Graduate Program in Neuroscience, Boston University, ²Department of Psychological and Brain Sciences, Boston University, ³Department of Biomedical Engineering, Boston University

26.310 Free and fast implementations of a novel lightness computational model
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Yuki Kobayashi¹,²,³ (y-koba@gst.ritsumei.ac.jp), Masanori Kanamaru²,⁴, Akiyoshi Kitaoka¹; ¹Ritsumeikan University, ²Japan Society for the Promotion of Science, ³American University, ⁴The University of Tokyo

26.311 Statistical properties of 1st- and 2nd-order brightness induction in a disk/annulus paradigm
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Osman B. Kavcar¹ (okavcar@nevada.unr.edu), Michael A. Crognale¹,², Michael E. Rudd¹,²; ¹University of Nevada, Reno, ²Center for Integrative Neuroscience

26.312 Linearisation of a monitor for web-based experiments
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Jonathan Peirce¹,² (jonathan.peirce@nottingham.ac.uk), Kimberley Dundas², Rebecca Hirst², Nikita Agafonov², Alain Pitiot²; ¹University of Nottingham, Nottingham, UK, ²Open Science Tools Ltd, Nottingham, UK

26.313 Optimizing data acquisition for MLDS: when is it valid to take a short-cut?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Guillermo Aguilar¹ (guillermo.aguilar@mail.tu-berlin.de), Jakob Grünwald², Marianne Maertens¹; ¹Technische Universität Berlin, Germany, ²Université Côte d'Azur, France.

Color, Light and Materials: Cognition

26.314 Color naming, color identification, and the focal color terms
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Angela brown¹ (brown.112@osu.edu), Delwin Lindsey¹; ¹Ohio State University

26.315 Hue ensemble segregation does not rely on color categories
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Lari Virtanen¹ (lari.virtanen@helsinki.fi), Maria Olkkonen¹, Toni Saarela¹; ¹University of Helsinki
**26.316** Hue variation masks effects of lightness on interpretations of colormap data visualizations  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Clementine Zimnicki¹,² (clemzimnicki@gmail.com), Danielle Albers Szafir³, Karen B. Schloss¹,²; ¹Department of Psychology, University of Wisconsin–Madison, ²Wisconsin Institute for Discovery, University of Wisconsin–Madison, ³Department of Computer Science, University of North Carolina, Chapel Hill

**26.317** Investigation of the opaque-is-more bias reveals a high chroma-is-more bias for colormap data visualizations  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Melissa A. Schoenlein¹ (schoenlein@wisc.edu), Mouloukou D. Sidibe², Karen B. Schloss¹; ¹University of Wisconsin-Madison, ²Lycoming College

**Attention: Top-down, reward**

**26.318** Active attentional suppression and its limitations in the template-for-rejection effect  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Tomoyuki Tanda¹ (t.tanda@let.hokudai.ac.jp), Jun-ichiro Kawahara²; ¹Hokkaido University

**26.319** Are complex attentional templates restricted to a single location?  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Keith Racioppo¹, Benjamin Tamber-Rosenau¹; ¹University of Houston

**26.320** Reduced contextual variability facilitates learned attending towards task-relevant features and away from distracting information  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Chris Jungerius¹,² (d.c.jungerius@uva.nl), Sophie Perizonius¹, Heleen Slagter¹; ¹Vrije Universiteit Amsterdam, ²University of Amsterdam

**26.321** Selection errors: How do target and distractor features affect attentional capture and learning of spatial distractor regularities?  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Aylin A. Hanne¹ (aylin.hanne@uni-marburg.de), Jan Tünnermann¹, Anna Schubö¹; ¹Philipps-University Marburg

**26.322** Spatial distraction reverses category-tuned attentional filters by disrupting both facilitation and suppression  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Blaire Dube¹ (dube.25@osu.edu), Lasyapriya Pidaparthi¹,², Julie D. Golomb¹; ¹The Ohio State University, ²Vanderbilt University

**26.323** Effort-driven attentional capture  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Molly McKinney¹ (mollyr.mckinney@tamu.edu), David Lee², Brian Anderson³; ¹Texas A&M University
26.324  Learned reliability of a distracting cue impacts feature errors  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

John A. McNally¹ (johnamcnally@outlook.com), William Narhi-Martinez¹, Andrew B. Leber¹, Julie D. Golomb¹; ¹Department of Psychology, The Ohio State University

26.325  Value-Driven Attentional Capture and Reward Variability  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sojung Youn¹ (syoun@tamu.edu), Brian Anderson¹; ¹Texas A&M University

26.326  It's All About Me: Attentional Prioritization of Self-Rewarding Information  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Rebecca Warren¹ (rebeccawarren@tamu.edu), Andrew Clement¹, Brian Anderson¹; ¹Texas A&M University

Face Perception: Individual differences

26.327  Contribution of a common ability in judgments for the mode of object identities  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Oakyoon Cha¹ (oakyoon.cha@sungshin.ac.kr); ¹Sungshin Women’s University

26.328  Face recognition plays a role in ensemble judgments of facial features  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Soo Jin Kim¹ (soojin3926@gmail.com), Oakyoon Cha¹; ¹Sungshin Women’s University

26.329  Effects of Age and Fixation Location on Face Identification  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Eric Cui¹,² (mcui@research.baycrest.org), Farhan Abdul Vaheed², Eugenie Roudaia², Björn Herrmann¹,², Allison B. Sekuler¹,²,³; ¹Psychology, University of Toronto, ²Rotman Research Institute, Baycrest, ³Psychology, Neuroscience & Behaviour, McMaster University

26.330  Individual differences in judging facial categories  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kassandra R. Lee¹ (kassandral@nevada.unr.edu), Michael A. Webster¹; ¹Integrative Neuroscience, Dept. of Psychology, University of Nevada, Reno

26.331  Individual differences in rapid face-directed saccades  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Maximilian Davide Broda¹ (maximilian.broda@psychol.uni-giessen.de), Benjamin de Haas¹; ¹Justus Liebig University Giessen

26.332  Stable individual differences in the serial dependence of face perception  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yuki Murai¹ (ymurai@nict.go.jp), David Whitney²; ¹National Institute of Information and Communications Technology, ²University of California, Berkeley
26.333 The computational value of face information sampled by super-recognizers

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Sebastien Miellet¹ (smiellet@uow.edu.au), James D. Dunn², Victor P. L. Varela², Bojana Popovic², Stephanie Summersby², David White²; ¹University of Wollongong, ²UNSW Sydney

26.334 Impact of judgment criteria on the hue-dependent brightness perception of face

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Yuanyuan He¹ (heyuanyuan@chiba-u.jp), Hiromi Y. Sato¹, Yoko Mizokami¹; ¹Chiba University, Japan

26.335 Does Observers’ Ethnicity Influence Visual Strategies for Gender and Expressiveness Judgments?

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Isabelle Charbonneau¹ (isabellecharbonneau8@gmail.com), Vicki Ledrou-Paquet¹, Caroline Blais¹, Daniel Fiset¹; ¹Universite du Quebec en Outaouais, ²Psychoeducation and Psychology department


Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Sarina Hui-Lin Chien¹,² (sarinachien@mail.cmu.edu.tw), Chien-Kai Chang¹, Evelyn Hsin-Yi Tsai³, I-Fan Lin⁴; ¹Graduate Institute of Biomedical Sciences, China Medical University, Taiwan, ²Center for Neuroscience and Brain Diseases, China Medical University, Taiwan, ³Graduate Program of Cognitive Sciences in Education, Columbia University, NYC, ⁴Department of Clinical Toxicology and Occupational Medicine, Taipei Veterans General Hospital, Taiwan

26.337 Development of Electrophysiological Correlates of Face/non-face Distinction in Children with Late Sight Onset

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Chetan Ralekar¹ (cralekar@mit.edu), Shefali Gupta², Tapan Kumar Gandhi², Sharon Gilad-Gutnick¹, Dhun Verma³, Priti Gupta⁴, Suma Ganesh⁵, Umang Mathur⁵, Pawan Sinha¹; ¹Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA, USA, ²Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi, India, ³Project Prakash, Dr. Shroff’s Charity Eye Hospital, Delhi, India, ⁴Amarnath and Shashi Khosla School of Information Technology, Indian Institute of Technology, Delhi, India, ⁵Department of Ophthalmology, Dr. Shroff’s Charity Eye Hospital, Delhi, India

26.338 The visual perks of (not) being a wallflower: how individual differences in social intelligence predict face recognition performance

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Maleah J. Carter¹, Spencer Andrews¹, Shruti Japee¹, J. Brendan Ritchie¹; ¹Laboratory of Brain and Cognition, NIMH, NIH

26.339 Autistic adults exhibit highly precise representations of others’ emotions but a reduced influence of emotion representations on emotion recognition accuracy

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Maleah J. Carter¹, Spencer Andrews¹, Shruti Japee¹, J. Brendan Ritchie¹; ¹Laboratory of Brain and Cognition, NIMH, NIH
JENNIFER COOK1 (j.l.cook@bham.ac.uk), Connor Keating1, Eri Ichijo2; 1University of Birmingham, 2University of Oxford

Face Perception: Emotion

26.340 The impact of face ethnicity on the detection of pain facial expressions
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Daphnée Sénécal1 (daphnee.senecal@outlook.com), Marie-Pier Plouffe-Demers2, Daniel Fiset3, Caroline Blais4; 1Université du Québec en Outaouais, 2Université du Québec à Montréal

26.341 Which gender do we perceive in a painful face?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Camille Saumure1 (camille.saumureregimbald@unifr.ch), Caroline Blais2, Daniel Fiset2, Roberto Caldara1; 1University of Fribourg, 2University of Quebec in Outaouais

26.342 Mental Representations of Pain: the Effect of the Sex of the Perceiver
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Arianne Richer1, Marie-Pier Plouffe-Demers1,2, Francis Gingras1,2, Daniel Fiset1, Caroline Blais1; 1Université du Québec en Outaouais (UQO), 2Université du Québec à Montréal (UQAM)

26.343 Emotional judgments depend on perceived gender
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Sheida Mirzaei Domabi1 (mirsh-25@rhodes.edu), Ellie Leahey2, Jason Haberman3; 1Rhodes college

26.345 Longer presentation duration helps to individuate faces in an RSVP stream
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Nidhi Deepu Rajan1 (nidh0001@e.ntu.edu.sg), Haojiang Ying2, Hong Xu1; 1Nanyang Technological University, 2Soochow University

26.346 The Contextual Affects of Facial Expression
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Bliss Cui1 (cui.bl@northeastern.edu), Peter Bex1, Lisa Feldman Barrett1; 1Northeastern University

26.347 Positive and negative facial valence are differently modulated by eccentricity: Replicating and extending earlier findings
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Vasilisa Akselevich1, Sharon Gilaie-Dotan1,2; 1Bar-Ilan University, 2UCL

26.348 Unbiased by redundant signals: Negativity bias for emotion perception of single but not two identical faces
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Yu R. Dandan1 (dandan.yu@univ-lille.fr), Li L-Miao1,2, Bilge Sayim1,3; 1Univ. Lille, CNRS, UMR9193 - SCALab - Sciences Cognitives et Sciences Affectives, F-59000 Lille, France, 2Faculty of Psychology and Educational Sciences, KU Leuven @Kulak, Kortrijk, Belgium, 3Institute of Psychology, University of Bern, Bern, Switzerland
26.349 Angry faces do draw out attention more compared to happy faces

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Young Jun Yoon1 (dudwns7367@gmail.com), Sung Jun Joo1; 1Pusan National University

26.350 Upside-Down Selfies Look Much More Alert and Awake

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Michael K. McBeath1,2 (michael.mcbeath@asu.edu), Mathew D. Langley1, Sophia Baia1; 1Arizona State University, 2Max Planck Institute for Empirical Aesthetics

26.351 Modeling Emotional Cue Integration of Context-rich and Dynamic Stimuli reveals Bayesian as well as anti-Bayesian Properties

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Jefferson Ortega1 (jefferson_ortega@berkeley.edu), Yuki Murai2, David Whitney1; 1University of California, Berkeley, 2National Institute of Information and Communications Technology

26.352 The visual representation of pain facial expressions: a high-definition transcranial direct current stimulation study

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Marie-Claude Desjardins1 (mc.desjardins00@gmail.com), Daphnée Sénécal1, Sara Tremblay1,2,3, Daniel Fiset1, Francis Gingras1, Caroline Blais1; 1University of Québec in Outaouais, 2Neuromodulation Research Clinic, Royal&#039;s Institute of Mental Health Research, 3Department of Cellular and Molecular Medicine, University of Ottawa

26.353 Decoding the neural representations of emotional faces in stereo- versus monoscopic viewing conditions

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Felix Klotzsche1,2,3 (klotzsche@cbs.mpg.de), Ammara Nasim1,4, Simon M. Hofmann1,5, Arno Villringer1,2, Vadim V. Nikulin1, Werner Sommer2,3,6, Michael Gaebler1,2; 1Max Planck Institute for Human Cognitive and Brain Sciences, 2Humboldt-Universität zu Berlin, Berlin School of Mind and Brain, Germany, 3Humboldt-Universität zu Berlin, Department of Psychology, Germany, 4Carl von Ossietzky Universität Oldenburg, Germany, 5Fraunhofer Institute Heinrich Hertz, Department of Artificial Intelligence, Berlin, Germany, 6Zhejiang Normal University, Department of Psychology, Jinhua, China

26.354 Probing the link between dynamics of “face-selectivity” in macaque IT cortex and facial emotion discrimination behavior

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Maren Wehrheim1 (marenwehrheim@gmail.com), Na Yeon Kim2, Ralph Adolphs2, Kohitij Kar3; 1Goethe University Frankfurt, 2California Institute of Technology, 3York University

Undergraduate Just-In-Time 1

26.355 Are Artificial Motion Scotomas Driven by Cortical Feedback or Lateral Inhibition Mechanisms?

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
26.356  Somehow, everything has changed: Event boundaries defined only by unnoticed changes in implicit visuospatial statistics drive active forgetting in visual working memory  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Pranava Dhar¹, Joan Danielle K. Ongchoco¹, Kimberly W. Wong¹, Brian Scholl¹; ¹Yale University

26.357  VWM Impairs Visual Detection: A Function of Shared Attentional or Sensory Resources  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Aysha Hamkari¹ (aah698@nyu.edu), David Melcher¹; ¹Division of Science, Department of Psychology, New York University Abu Dhabi, ²Center for Brain & Health, NYUAD Research Institute, New York University Abu Dhabi

26.358  Effects of Familiarity in Advertisements Logos During The Attentional Blink  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Shaun Besch¹, Juan Guevara Pinto¹; ¹Rollins College

26.359  Target similarity in the attentional blink explained by recurrent convolutional networks  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Emmanuel Lebeau¹, Daniel Lindh²,³, Adrien Doerig⁴, Tim C. Kietzmann⁴, Ilja G. Sligte², Shapiro Kimron L.³, Ian Charest¹,³; ¹Cerebrum, Département de Psychologie, Université de Montréal, Canada, ²Department of Psychology, University of Amsterdam, The Netherlands, ³Centre for Human Brain Health, School of Psychology, University of Birmingham, United Kingdom, ⁴Institute of Cognitive Science, University of Osnabrück, Germany

26.360  Reconstruction of Motion Feature Maps From Human Cortex Using An Augmented Inverted Encoding Model  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Connor Ding¹, Daniel Thayer¹, Thomas Sprague¹; ¹University of California, Santa Barbara

26.361  Seeing both sides of things: Exploring visual consciousness and self-awareness  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Anwesha Das¹, Daw-An Wu¹, Shinsuke Shimojo¹; ¹California Institute of Technology (Caltech)

26.362  The automaticity of ‘seeing-in’: Pictorial depth cues influence judgments of surrounding spatial relationships even when task-irrelevant  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Kexuan Zhang¹, June Huang¹, Benjamin van Buren¹; ¹The New School

26.363  Interaction of expectancy effects and the illusory object benefit on working memory performance  
*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
Phelix Rodriguez1, Yin-ting Lin1, Andrew B. Leber1; 1The Ohio State University

26.364  The Things-Action Database
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Natalia Pallis-Hassani1, Shruti Japee2, Chris Baker3, Maryam Vaziri-Pashkam4; 1Lab of Brain and Cognition, National Institute of Mental Health

26.365  Investigating the neural development of social scene perception in young children using naturalistic stimuli
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Elizabeth Jiwon Im1 (imelizabeth@jhu.edu), Angira Shirahatti1, Leyla Isik1; 1Johns Hopkins University

26.366  Target interception in virtual reality is faster for natural than unnatural trajectory shapes
Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Sofia Varon1, Karsten Babin1, Miriam Spering2, Jody C. Culham1; 1Western University, 2University of British Columbia

Saturday Afternoon Posters in Pavilion

Attention: Affect, threat

26.401  Do fewer salient events modulate the emotional attentional blink?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Lindsay A. Santacroce1 (lsantacr@central.uh.edu), Benjamin J. Tamber-Rosenau1; 1University of Houston

26.402  Effects of Emotional Distractors on the Processing of Motion Stimuli
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Changhao Xiong1 (xiong.changhao@ufl.edu), Ke Bo2, Nathan Petro3, Andreas Keil1, Mingzhou Ding1; 1UNIVERSITY OF FLORIDA, 2DARTMOUTH COLLEGE, 3BOYS TOWN NATIONAL RESEARCH HOSPITAL

26.403  Emotional Valence Effects on Facilitation of Cognitive Control
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Sarah B. Malykke1 (sarahmalykke@gwu.edu), Rebeka C. Almasi1, Jini Tae2, Yoonhyoung Lee3, Myeong-Ho Sohn1; 1The George Washington University, 2Gwangju Institute of Science and Technology, 3Yeungnam University

26.404  Failure to replicate an effect of affective state on attentional breadth and attentional blink
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Jeffrey Saunders1 (jsaun@hku.hk), Ho Ming Chan1; 1University of Hong Kong

26.405  Generalization of threat-related attentional priority with visual objects
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Kirsten Moore1 (kirstenmoore277@gmail.com), Laurent Grégoire1, Andrew Clement1, Brian Anderson1; 1Texas
**26.406 Inhibition of return (IOR) for negative emotional stimuli: a meta-analysis**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Xiang Li¹ (xiangli1206@163.com), Xinqing Xu¹, Ruihong Liu¹, Hongwei Sun¹, Liping Jia¹, Qianru Xu², Chaoxiong Ye³, Kevin Guo⁴, Hong-jin Sun⁴; ¹Weifang Medical University, China, ²University of Oulu, Finland, ³University of Jyväskylä, Finland, ⁴McMaster University, Canada

**26.407 Investigating the interaction between affective arousal and luminance in modulating pupil size**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jasmine Pan¹ (jasminep@bu.edu), Michaela Klimova¹, Joseph McGuire¹, Sam Ling¹; ¹Boston University

**26.408 Neural Processing of Affective Scenes: A Comparison between Convolutional Neural Networks and Human Visual Pathways**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Yujun Chen¹ (yujunchen@ufl.edu), Lihan Cui¹, Mingzhou Ding¹; ¹UNIVERSITY OF FLORIDA

**26.409 Vicarious learning of threat-related attentional capture**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Laurent Grégoire¹ (lgregoire1@tamu.edu), Mirela Dubravac¹, Kirsten Moore¹, Namgyun Kim², Brian Anderson¹; ¹Texas A&M University, ²University of Dayton

**26.410 How robust are negative attentional templates?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sizhu Han¹ (sizhu.han@uni-marburg.de), Anna Schubö¹; ¹Experimental and Biological Psychology, Philipps-Universität Marburg, Marburg, Germany

**Eye Movements: Perception, remapping**

**26.411 Peri-saccadic mislocalization in a rhesus macaque monkey depends on the visual appearance of the saccade target**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Matthias Philipp Baumann¹ (matthias-philipp.baumann@student.uni-tuebingen.de), Ziad Hafed¹; ¹University of Tübingen

**26.412 Pre-saccadic modulation of collinear lateral interactions**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Gabriela Mueller de Melo¹, Isabella de Oliveira Pitorri¹, Gustavo Rohenkohl¹-²; ¹Institute of Biosciences, University of São Paulo, São Paulo, Brazil, ²Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with Max Planck Society, Frankfurt, Germany

**26.413 Post-saccadic impairment of scene perception**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*
26.414 Is trans-retinal integration exclusive to saccades?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Yong Min Choi¹ (choi.1696@osu.edu), Tzu-Yao Chiu¹, Julie D. Golomb¹; ¹Department of Psychology, The Ohio State University

26.415 Robust and saccade-specific feature blanking effect for a wide range of spatial frequencies, sizes and eccentricities
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Carolin Hübner¹ (carolin.huebner@hu-berlin.de), Martin Rolfs¹; ¹Department of Psychology, Humboldt-Universität zu Berlin

26.416 Microsaccade rates reflect trial difficulty for perifoveal motion discrimination
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Rania Ezzo¹,² (rje257@nyu.edu), Bogeng Song¹, Bas Rokers¹,², Marisa Carrasco¹; ¹New York University, ²New York University Abu Dhabi

26.417 The influence of task-irrelevant landmarks on spatiotopic localization and object-location binding
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Zitong Lu¹ (lu.2637@osu.edu), Julie D. Golomb¹; ¹Department of Psychology, The Ohio State University

26.418 Are smooth pursuit eye movements influenced by perceptual experience?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Loic Daumail¹ (loic.daumail@vanderbilt.edu), Zoe Armstrong¹, Frank Tong¹; ¹Vanderbilt University

26.419 The perceived motion of stimuli moving with, or opposite to, the direction of eye motion
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Josephine D'Angelo¹ (josephine_dangelo@berkeley.edu), Pavan Tiruvedhula¹, Raymond J. Weber², David W. Arathorn², Austin Roorda¹; ¹University of California, Berkeley, ²Montana State University

26.420 Serial dependence in Oculomotor inhibition uncovers stimulus predictability: what, where, and when
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Yahel Shwartz¹ (yahels222@gmail.com), Yoram Bonneh¹; ¹Bar-Ilan University, Ramat Gan, Israel

26.421 Motion prediction explains saccadic omission
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Eckart Zimmermann¹ (eckartzi@gmail.com), Antonella Pome¹; ¹University Düsseldorf

26.422 Eye Movements during Free Viewing and Scene Description are Similarity Directed to Objects Critical to Scene Understanding
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Shravan Murlidaran¹ (smurlidaran@ucsb.edu), Miguel P Eckstein¹; ¹University of California Santa Barbara

26.423 Sound-induced pupil dilation response reflects location in auditory space

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Hsin-I Liao¹ (hsini.liao.pb@hco.ntt.co.jp), Shimpei Yamagishi¹, Shigeto Furukawa¹; ¹NTT Communication Science Laboratories

Object Recognition: Reading

26.424 Can a gamified, rapid, online assessment of letter encoding ability in kindergarten and first grade children predict future reading development?

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Mahalakshmi Ramamurthy¹ (maha10@stanford.edu), Adam Richie-Halford¹, Klint Kanopka¹, Andrea Hartsough², Katelyn Osuna¹, Maria Luisa Gorno-Tempini², Jason D Yeatman¹; ¹Developmental-behavioral Pediatrics, School of Medicine & Graduate School of Education, Stanford University, CA, USA., ²Weill Institute for Neurosciences, University of California, San Francisco, CA, USA.

26.425 Diverse reading themes for readability

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Tianyuan Cai¹, Aleena Niklaus¹, Michael Kraley¹, Bernard Kerr¹, Zoya Bylinskii¹; ¹Adobe Inc.

26.426 How reading acquisition changes the landscape of the function within the visual word form area

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Jin Li¹ (li.9361@buckeyemail.osu.edu), Patricia Stefancin-Resnick¹, Zeynep Saygin¹; ¹The Ohio State University

26.427 Interacting effects of stimulus familiarity, attention and language in the visual word form area

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Vassiki Chauhan¹ (vchauhan@barnard.edu), Krystal McCook¹, Alex White¹; ¹Barnard College, Columbia University

26.428 Psychophysics of variable fonts: Gaze measures of reading efficiency

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Zainab Haseeb¹ (zainab.haseeb@mail.utoronto.ca), Silvia Guidi¹, Benjamin Wolfe¹, Anna Kosovicheva¹; ¹University of Toronto Mississauga

26.429 Psychophysics of variable fonts: Speed and comprehension measures

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Silvia Guidi¹ (s.guidi@mail.utoronto.ca), Zainab Haseeb¹, Anna Kosovicheva¹, Benjamin Wolfe¹; ¹University of Toronto Mississauga

26.430 RSVP reading speed varies two-fold across fonts, in inverse proportion to
crowding distance
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Denis G. Pelli\textsuperscript{1} (denis.pelli@nyu.edu), Jan Kurzawski\textsuperscript{1}, Augustin Burchell, Najib J. Majaj\textsuperscript{1}; \textsuperscript{1}New York University

26.431 Semantically related Korean words can be processed in parallel
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Sang-Ah Yoo\textsuperscript{1} (singahy@gmail.com), Sung Jun Joo\textsuperscript{1}; \textsuperscript{1}Pusan National University

26.432 The spatiotemporal dynamics of letter processing in visual word recognition elucidated by random temporal sampling
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Martin Arguin\textsuperscript{1,2} (martin.arguin@umontreal.ca), Simon Fortier-St-Pierre\textsuperscript{1}; \textsuperscript{1}Universite de Montreal, \textsuperscript{2}Centre de recherche, Institut Universitaire de Gériatrie de Montréal

26.433 The visual word form area engages in processing Braille in expert visual readers
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Filippo Cerpelloni\textsuperscript{1,2} (filippo.cerpelloni@kuleuven.be), Alice Van Audenhaege\textsuperscript{1}, Ceren Battal\textsuperscript{1}, Remi Gau\textsuperscript{1}, Federica Falagiarda\textsuperscript{1}, Hans Op de Beeck\textsuperscript{2*}, Olivier Collignon\textsuperscript{1,3,4*}; \textsuperscript{1}Institute of Psychology (IPSY) and Institute of Neuroscience (IoNS), University of Louvain, Belgium, \textsuperscript{2}Brain and Cognition, Leuven Brain Institute, KU Leuven, Belgium, \textsuperscript{3}Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy, \textsuperscript{4}The Sense Innovation and Research Center, School of Health Sciences, HES-SO Valais-Wallis, Lausanne and Sion, Switzerland

26.434 Visual Word Recognition in Text Prediction Users and Non-Users
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Timurhan Djedilbaev\textsuperscript{1}, Maria Falikman; \textsuperscript{1}Delft University of Technology, \textsuperscript{2}The University of the South

Binocular Vision: Disparity processing

26.436 Are crossed and uncrossed disparities processed by the same mechanism?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Penghan Wang\textsuperscript{1}, Alexandre Reynaud\textsuperscript{1}, Robert Hess\textsuperscript{1}; \textsuperscript{1}McGill University

26.438 Global versus local internal disparity noise in stereovision
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Jian Ding\textsuperscript{1} (jian.ding@berkeley.edu), Hilary Lu\textsuperscript{1}, Kaiona Martinson\textsuperscript{1}, Eleanor Ball\textsuperscript{1}, Nicholette Toukerani\textsuperscript{1}, Dennis Levi\textsuperscript{1}; \textsuperscript{1}Herbert Wertheim School of Optometry, University of California, Berkeley

26.439 Stereopsis from interocular temporal delay: disentangling the effects of target versus background luminance
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Takahiro Doi\textsuperscript{1} (takadoi@meta.com), Laurie Wilcox\textsuperscript{2}, T. Scott Murdison\textsuperscript{1}; \textsuperscript{1}Reality Labs, Meta Platforms Inc., \textsuperscript{2}Department of Psychology, Centre for Vision Research, York University, Toronto
**26.440 Efficient Coding Predicts Changes in Motion-in-Depth Speed Judgements**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Lauren Murray¹ (l.n.murray@stir.ac.uk), Ross Goutcher¹; ¹University of Stirling

**26.441 Characterizing frontoparallel stereoscopic motion by measuring duration thresholds**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ignacio Serrano-Pedraza¹,² (iserrano@ucm.es), Ichasus Llamas-Cornejo¹; ¹Department of Experimental Psychology, Universidad Complutense de Madrid, Madrid, 28223, Spain, ²Centre for Behaviour and Evolution, Newcastle University, Newcastle upon Tyne, NE2 4HH, UK

**3D: Cues and integration**

**26.442 A different point of view: The entrance pupil, not the nodal point, is the center of projection**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jacob Duijnhouwer¹, Kristina Uhlenendorf¹, Gerrit W Maus¹, Jenny C A Read²; ¹Magic Leap, Inc., ²Newcastle University

**26.443 The disparity gradient limit has limited relevance to natural environments**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Arleen Aksay¹ (aaksay@yorku.ca), Laurie M. Wilcox¹; ¹York University

**26.444 Just-Noticeable Differences do not reflect depth cue uncertainty: Evidence from depth discrimination between motion and disparity stimuli**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jovan Kemp¹ (jovan_kemp@brown.edu), Fulvio Domini¹; ¹Brown University

**26.445 A Prior for Convexity can Override the Rigidity Assumption in Structure-From-Motion**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ryne Choi¹,² (ryne.choi@rutgers.edu), Jacob Feldman¹,², Manish Singh¹,²; ¹Rutgers University, Department of Psychology, ²Rutgers University, Center for Cognitive Science

**26.446 What changes after visuomotor training? Cue reweighting may in fact be cue recalibration**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ailin Deng¹ (dengailin@gmail.com), Fulvio Domini²; ¹Brown University

**Perception and Action**

**26.447 Action-response mode modulates go/no-go decision accuracy**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Philipp Kreyenmeier¹ (philipp.kreyenmeier@googlemail.com), Miriam Spering¹, Jolande Fookoo²; ¹University of
**26.448 Motion intention is insufficient for serial temporal dependencies in a go/no-go process**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Mitra Taghizadeh Sarabi\(^1\), Clara Fritz\(^1\), Nadine Schlichting\(^1\), Eckart Zimmermann\(^1\); \(^1\)Institute for Experimental Psychology, Heinrich Heine University Düsseldorf, Germany

**26.449 Why does what you’re moving affect how fast you search?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Emily M Crowe\(^1\)\(^2\) (e.m.crowe@vu.nl), Danai T Vorgia\(^2\), Eli Brenner\(^2\); \(^1\)University of Nottingham, \(^2\)Vrije Universiteit Amsterdam

**26.450 Sensorimotor Synchronization to External and Imagined Visual Stimuli**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Fang Jiang\(^1\) (fangj@unr.edu), Benjamin Sreenan\(^1\), Simon Whitton\(^1\); \(^1\)UNR

**26.451 Effects of motor preparation on category-specific representations in human cortex**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Canhuang Luo\(^1\), Edward Ester\(^1\); \(^1\)University of Nevada, Reno

**26.452 The influence of active tracing on shape representation in visual pathways**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Guy Baratz\(^1\) (guybaratz@mail.tau.ac.il), Batel Buaron\(^1\), Roy Mukamel\(^1\); \(^1\)Tel Aviv University

**26.453 Visually guided (joint) action in a novel ball-and-beam task**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Marijn Hafkamp\(^1\) (marijn.hafkamp@univ-amu.fr), Remy Casanova\(^1\), Reinoud J. Bootsma\(^1\); \(^1\)Aix-Marseille University

**26.454 Neural bases of attentional contexts that mediate visuomotor adaptation**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Hee Yeon Im\(^1\) (heeyeon.im@ubc.ca), Joo-Hyun Song\(^2\); \(^1\)University of British Columbia, \(^2\)Brown University

**26.455 The locus of flanker congruency effects: Insights from Bayesian modelling and a choice reaching flanker task using random dot kinematograms.**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jordan Deakin\(^1\), Alexander Daskalopoulos\(^2\), Mukesh Makwana\(^2\), Joo-Hyun Song\(^2\), Dietmar Heinke\(^1\); \(^1\)University of Birmingham, \(^2\)Brown University

**26.456 Intention as Hierarchical Constraints in Human Planning**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jingyin Zhu\(^1\) (zhujy@zju.edu.cn), Shaozhe Cheng\(^1\), Tao Gao\(^2\), Mowei Shen\(^1\), Jifan Zhou\(^1\); \(^1\)Department of Human
A Simplified Model of Motor Control

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Kabir Arora¹,², Samit Chakrabarty¹; ¹University of Leeds, Leeds, United Kingdom, ²Utrecht University, Utrecht, The Netherlands

Strong evidence against number adaptation

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Sami Yousif¹ (sryousif@sas.upenn.edu), Sam Clarke¹, Elizabeth Brannon¹; ¹University of Pennsylvania

Spatial Vision: Crowding and eccentricity

Metacognitive monitoring of the perceptual resolution across and around the visual field

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Cheongil Kim¹ (kimcheongil@gmail.com), Sang Chul Chong¹; ¹Yonsei University

Hemifield Asymmetries in Crowding

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Nicole L. Oppenheimer¹ (noppenhe@barnard.edu), Anishka Yerabothu¹, Alex L. White¹; ¹Barnard College, Columbia University

Exploring perceptual sensitivity and response bias in the visual periphery

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Joseph Pruitt¹ (josephpruitt@ufl.edu), Trevor Caruso¹, Brian Odegaard¹; ¹University of Florida

Does your old clutter measure spark joy?

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Ruth Rosenholtz¹ (rruth@mit.edu); ¹NVIDIA, MIT

An enhanced Bouma model fits fifty people’s visual crowding

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Jan Kurzawski¹ (jan.kurzawski@gmail.com), Najib Majaj², Jonathan Winawer³, Denis Pelli⁴; ¹New York University

Pop-out and crowding effect in adults with ADHD

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Hani Tsruya¹ (hanifrah75@gmail.com), Maria Lev, Uri Polat; ¹Bar ilan university

Interactions of crowding, overlap masking and surround suppression

Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion

Susana Chung¹ (s.chung@berkeley.edu), Charles Ang¹, Daniel Coates²; ¹University of California, Berkeley, ²University of Houston

Cortical magnification, not summary statistics, explains information loss in
peripheral vision
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Rachel Heaton¹ (rmflood2@illinois.edu), John Hummel¹, Alejandro Lleras¹, Simona Buetti¹; ¹University of Illinois Urbana-Champaign

26.467 Does pre-microsaccadic remapping alter parafoveal crowding zones?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Krish Prahalad¹ (pskrishn@central.uh.edu), Daniel Coates¹; ¹University of Houston College of Optometry, Houston, TX, United States

26.468 Information compression determines the appearance of repeating patterns in peripheral vision
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Sabrina Hansmann-Roth¹, Bilge Sayim²,³; ¹University of Iceland, ²Université de Lille, ³University of Bern

26.469 Can crowding distance be measured using standard letters in young children?
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Sarah J Waugh¹ (s.j.waugh@hud.ac.uk), Monika A Formankiewicz²; ¹University of Huddersfield, ²Anglia Ruskin University

26.470 Featural representation underlies performance differences around the visual field
Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion
Shutian Xue¹ (shutian.xue@nyu.edu), Marisa Carrasco¹,²; ¹Department of Psychology, New York University, New York, United States, ²Center for Neural Science, New York University, New York, United States

Sunday Morning Posters in Banyan Breezeway

Attention: Spatial

33.301 Spatial attention alters BOLD activity and population receptive fields in visual cortex
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ekin Tünçok¹, Marisa Carrasco¹, Jonathan Winawer¹; ¹New York University

33.302 Assessing the Role of the Pulvinar in Feature versus Spatial Attention Control using Deep Neural Networks
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Yun Liang¹ (yunliang@ufl.edu), Sreenivasan Meyyappan², Mingzhou Ding¹; ¹University of Florida, ²University of California, Davis

33.303 Visuospatial Attention and Discrimination of Oriented Gabor Patches in Children as a Function of Birth Experience
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ivy Chau¹ (ivychau@yorku.ca), Shir Bach-Kay¹, Audrey Wong-Kee-You², Scott Adler¹; ¹York University, ²Smith-Kettlewell Eye Institute

33.304 Effect of focused and distributed attention on stimulus representations in neural priority maps

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Amelia H. Harrison¹ (aharrison@ucsb.edu), Daniel D. Thayer¹, Thomas C. Sprague¹; ¹UC Santa Barbara

33.306 Measuring visual attention to online videos with a mouse cursor window paradigm: considerations for large scale data collection

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Karissa Payne¹ (karipayne@ksu.edu), Brian Howatt¹, Sahand Shaghaghi², Lester Loschky¹; ¹Kansas State University, ²University of Waterloo

33.307 Visual attention flows downhill

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Alex Mitko¹ (amitko1@jh.edu), Jason Fischer¹; ¹Johns Hopkins University

33.308 Neural correlates of the effect of attention on surround suppression

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Merve Kınıklioğlu¹,² (mervekiniklioglu@gmail.com), Hüseyin Boyacı¹,²,³,⁴; ¹Interdisciplinary Neuroscience Program, Bilkent University, ²National Magnetic Resonance Research Center (UMRAM), Bilkent University, ³Department of Psychology, Bilkent University, ⁴Department of Psychology, JL Giessen University, Germany

33.309 Visual Statistical Learning of Attentional Distractors Persists Over Several Days

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Brooke Greiner¹ (bgreiner@mcw.edu), Gennadiy Gurariy¹, Christine Larson², Adam S. Greenberg¹; ¹Medical College of Wisconsin, ²University of Wisconsin-Milwaukee

33.310 Visual Spatial Attention Both Enhances and Suppresses Neuronal Responses in Visual Cortex

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Qiang Yang¹ (yang.qiang@ufl.edu), Sreenivasan Meyyappan², George R. Mangun², Mingzhou Ding¹; ¹University of Florida, ²University of California Davis

33.311 From human frontal eye fields to early visual cortex: Probing the role of feedback in presaccadic attention with Transcranial Magnetic Stimulation (TMS)

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Nina Hanning¹,² (hanning.nina@gmail.com), Antonio Fernández¹, Marisa Carrasco¹; ¹New York University, ²Humboldt Universität zu Berlin

33.312 The joint contribution of statistical learning effects and bottom-up signals to the setting of attentional priorities

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Face Perception: Experience, learning, and expertise

33.313 Concealed familiar face detection with oculomotor measures and EEG in rapid serial visual presentation
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ivory Y. Chen¹, Aytaç Karabay¹, Sebastiaan Mathôt¹, Philipp K. Büchel¹, Robbert van der Mijn¹, Howard Bowman²,³, Elkan G. Akyürek¹; ¹Department of Experimental Psychology, University of Groningen, Groningen, the Netherlands, ²School of Psychology, University of Birmingham, UK, ³School of Computing, University of Kent, UK

33.314 Real-world familiarization: Faces become familiar through short-term naturalistic exposure
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Menahal Latif¹ (menahal.latif@ryerson.ca), Margaret Moulson¹; ¹Toronto Metropolitan University

33.315 Designing an “Other Race Effect” test for forensic facial identification experts using the performance of deep networks and untrained humans.
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kate Marquis¹ (kate.marquis@yahoo.com), Selin Yavuzcan¹, Géraldine Jeckeln¹, Amy Yates², P. Jonathon Phillips², Alice O’Toole¹; ¹The University of Texas at Dallas, ²National Institute of Standards and Technology

33.316 The Role of Instructional Motivation and Stimulus Properties on Other-Race Effects
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Cindy M. Bukach¹ (cbukach@richmond.edu), Brianna Chalrton¹, Pascalone Munezero¹, Erin Hugee¹, Natalie Benham¹, Patrick Sutphin¹, Maruti Mishra¹; ¹University of Richmond

33.317 Not the norm: Face likeness is not the same as similarity to familiar face prototypes.
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Benjamin Balas¹ (benjamin.balas@ndsu.edu), Adam Sandford², Kay Ritchie³; ¹North Dakota State University, ²University of Guelph-Humber, ³University of Lincoln

33.318 Scene context affects face discrimination
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Elissa Aminoff¹ (eaminoff@fordham.edu), Shira Baror²; ¹Fordham University, ²Hebrew University

33.319 Scene Previews Facilitate Face Detection Behavior
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Sule Tasliyurt Celebi¹ (sule.tasliyurt-celebi@psychol.uni-giessen.de), Benjamin de Haas¹,², Katharina Dobs¹,²;
33.320 The Effects of Horizontal Bias Training on Face Identification
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Jamie G.E. Cochrane¹ (cochrj1@mcmaster.ca), Ali Hashemi¹, Anastasia Gaykalova¹, Kayla Mateus¹, Eugenie Roudaia², Allison B. Sekuler¹,¹,²,³, Patrick J. Bennett¹; ¹Department of Psychology, Neuroscience & Behaviour, McMaster University, ²Rotman Research Institute, Baycrest, ³Department of Psychology, University of Toronto

33.321 Using Online Testing to Measure Spatial Frequency and Orientation Tuning in Face Processing
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Francis Gingras¹,² (francis.gingras16@gmail.com), Justin Duncan², Frédéric Gosselin³, Daniel Fiset², Caroline Blais²; ¹Université du Québec à Montréal, ²Université du Québec en Outaouais, ³Université de Montréal

33.322 What is the effective resolution of the retinal image of a distant face?
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Suayb S. Arslan¹ (sarslan@mit.edu), Michal Fux¹, Pawan Sinha¹; ¹Massachusetts Institute of Technology

33.323 An anatomically-constrained model of the primate visual system explains the inverted face effect as a function of expertise and suggests it arises at the level of V1
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Garrison Cottrell¹ (gary@ucsd.edu), Martha Gahl¹, Shubham Kulkarni¹, Alex Russell¹; ¹UCSD

Visual Search: Eye movements, attention, individual differences

33.324 Where's Waldo? Exploring Gaze Strategy in a Visual Search Task Online and In-Person
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Amy vanWell¹ (amyvanwell@gmail.com), James Tanaka¹; ¹University of Victoria

33.325 Visual Search Patterns in Cerebral Visual Impairment (CVI) Are Driven by Saliency Cues When Exploring Naturalistic Scenes
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Claire Manley¹ (cemanley@meei.harvard.edu), Kerri Walter², Peter Bex², Lotfi Merabet¹; ¹Mass. Eye and Ear, ²Northeastern University

33.326 Hard to ignore? Irrelevant distractors cannot be completely suppressed in a contextual cuing task.
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

M Pilar Aivar¹ (mariapilar.aivar@uam.es), Ricardo Rey-Sáez¹, Miguel A Vadillo¹; ¹Universidad Autónoma de Madrid (Madrid, Spain)

33.327 Salient targets don't catch your eye during extended field-of-view visual search
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Niklas Stein¹ (niklas.stein@uni-muenster.de), Tamara Watson², Maren Westendorf¹, Szonya Durant³, Markus Lappe¹; ¹University of Muenster, ²Western Sydney University, ³University of London

33.328 Sufficient eye movement coverage of the 2D image plane might mediate under-exploration in 3D search

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Devi Klein¹ (dklein@ucsb.edu), Miguel P. Eckstein¹; ¹UCSB

33.329 Expected Distractor Context Biases the Attentional Template for Target Shapes

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Maëlle Lerebourg¹ (maelle.lerebourg@donders.ru.nl), Floris de Lange¹, Marius V. Peelen¹; ¹Donders Institute for Brain, Cognition & Behaviour

33.330 How Blind is Inattentional Blindness in Mixed Hybrid search?

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ava Mitra¹, Jeremy Wolfe¹,²; ¹Brigham and Women’s Hospital, ²Harvard Medical School

33.331 Carryover and spatial bias effects in Trail Making Test Part A sequential visual search

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Keith D. White¹,² (kdwhite@uf.edu), Ben Chapin¹, Matthew Schiefer¹,², John Williamson¹,², Ira Fischler¹, Alexandra Campbell¹, Kenneth M. Heilman¹; ¹University of Florida, Gainesville, ²Brain Rehabilitation Research Center, NF/SG Veterans’ Health System Medical Center, Gainesville FL

33.332 Probabilistic attentional selection during continuous visual search

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Jennifer Magerl Fuller¹ (jcm3@hi.is), Vladislav Khvostov², Árni Kristjánsson³, Árni Gunnar Ásgeirsson⁴; ¹University of Iceland

33.333 Research on re-search: Foraging in the same patch twice

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Injae Hong¹ (ihong1@bwh.harvard.edu), Jeremy M. Wolfe¹,²; ¹Brigham & Women’s Hospital, ²Harvard Medical School

33.334 Task design effects on negative search templates

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Michael Mugno¹ (mikemugno518@gmail.com), A. Caglar Tas¹; ¹University of Tennessee, Knoxville

33.335 How does color distribution learning affect oculomotor selection?

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Léa ENTZMANN¹ (leaentzmann@hi.is), Árni Gunnar Ásgeirsson², Árni Kristjánsson¹; ¹Icelandic Vision Lab, University of Iceland, ²University of Akureyri, Iceland

33.336 None to rule them all? No generalization of saliency models across age
**33.337** Impacts of Posttraumatic Stress Disorder on Eye-Movement during Visual Search in an Open Virtual Environment under High and Low Stress Conditions  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Leah Enders¹ (lenders@dcscorp.com), Heather Roy², Thomas Rohaly¹, Angela Jeter¹, Jessica Villarreal¹; ¹DCS Corp., Alexandria, VA USA, ²DEVCOM Army Research Laboratory, Aberdeen Proving Ground, MD USA

**Attention: Cueing, inattention**

**33.338** When your ice-cream is looking somewhere: Gaze cueing from human faces and inanimate objects  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Maria Falikman¹, Tatiana Shevel²; ¹The University of The South, ²HSE University, Moscow

**33.339** What do the inattentionally blind see? Evidence from 10,000 subjects  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Makaela Nartker¹, Chaz Firestone¹, Howard Egeth¹, Ian Phillips¹; ¹Johns Hopkins University

**33.340** Adaptive control of attentional gating and visual awareness during the attentional blink  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Shuyao Wang¹ (shuyao.wang@rug.nl), Aytaç Karabay¹, Elkan G. Akyürek¹; ¹University of Groningen, ²New York University Abu Dhabi

**33.341** Testing the Memory Encoding Cost Theory: A multiple cues experiment  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Chenxiao Guan¹ (chenxiaoguan@zju.edu.cn), Luo Chen¹, Huixing Song¹, Jian Li¹, Xiaoqi Huang¹, Mowei Shen¹, Hui Chen¹; ¹Zhejiang University

**33.342** When should you warn the driver about the moose?: The effect of auditory cue timing on hazard localization in naturalistic videos  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Jiali Song¹ (jiali.song11@gmail.com), Avery H. Chua¹, Meghna Patil¹, Anna Kosovicheva¹, Benjamin Wolfe¹; ¹University of Toronto Mississauga

**33.343** Scotoma awareness: a novel protocol to induce fast development of a Preferred retinal locus (PRL) in patients with central vision loss  
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway  
Marcello Maniglia¹ (mmanig@ucr.edu), Jason Vice², Kristina Visscher², Aaron Seitz¹; ¹University of California, Riverside, ²University of Alabama at Birmingham,
33.344 Exploring the effects of visual cue complexity on foot placement accuracy in a targeted stepping task
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Benjamin Kissack¹ (bkissack@uoguelph.ca), Kate Fitzpatrick¹, Lori Ann Vallis¹; ¹University of Guelph, Department of Human Health and Nutritional Sciences

33.345 Do Audiovisual Semantic Congruency Effects Exist Without Visual Awareness?
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kun Zhou¹ (xiaofolanyang@gmail.com), Jan Drewes², Weina Zhu¹; ¹School of Information Science, Yunnan University, 650091 Kunming, China, ²Institute of Brain and Psychological Science, Sichuan Normal University, 610066 Chengdu, China

33.346 Near-space advantage in a simulated 3D environment: an inhibition of return (IOR) study
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Noah Britt¹ (brittn@mcmaster.ca), Hanna Haponenko¹, Hong-jin Sun¹; ¹McMaster University

33.347 Cold exposure enhances visual responses in human cortex
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Caitlin Gregory¹ (caitlingregory@ucsb.edu), Tom Bullock¹, Emily Machniak¹, Viktoria Babenko¹, Michael Miller¹, Scott Grafton¹, Barry Giesbrecht¹; ¹UC Santa Barbara

33.348 Examining the Impact of Acetaminophen on Early Attentional Processing of Emotional Images
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Felicity Woodson¹ (fwoodson@tamu.edu), Ming-Ray Liao¹, Brian A. Anderson¹; ¹Texas A&M University

33.349 Predicting a Volitional Eye Movement Before a Visual Search: An Investigation of Overt Willed Attention
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
John Nadra¹,² (jn德拉@ucdavis.edu), Jesse Bengson², Mingzhou Ding³, George Mangun¹,²; ¹University of California, Davis, ²Center for Mind and Brain, Davis, CA, ³University of Florida

33.350 The difference between social attention and non-social attention lies in attention disengagement rather than attention orientation
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Shengyuan Wang¹ (wangshy56@mail2.sysu.edu.cn), Yanhua Lin¹, Xiaowei Ding¹; ¹Sun Yat-sen University

33.351 A coactivation mechanism of goal-directed and stimulus-driven attentional control
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Zexuan Niu¹ (zexuan-niu@uiowa.edu), J. Toby Mordkoff¹, Andrew Hollingworth¹; ¹The University of Iowa, Department of Psychological and Brain Sciences
**33.352 Are microsaccades biased similarly during external and internal shifts of covert attention?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Freek van Ede¹ (freek.van.ede@vu.nl), Zampeta-Sofia Alexopoulou¹, Baiwei Liu¹; ¹Vrije Universiteit Amsterdam

**33.353 The Vigilance Decrement is Not Only About Sensitivity**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Henri Etel Skinner¹ (henri@ucsb.edu), Isabel Ruacho¹, Barry Giesbrecht¹; ¹University of California Santa Barbara

**33.354 Artificially quickening the moment of awareness alters the appearance of orientation repulsion**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tomoya Nakamura¹,², Ikuya Murakami¹; ¹Departmen of Psychology, The University of Tokyo, ²Japan Society for the Promotion of Science

**33.355 The effect of alerting on cognitive control in the Simon task: An ERP study**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dawa Dupont¹ (dd@psy.ku.dk), Signe Allerup Vangkilde¹, Anke Anseeuw², Anders Petersen¹; ¹University of Copenhagen, ²Gent University

**Attention: Objects**

**33.356 Attention Response Functions During Multiple Object Tracking**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marvin R. Maechler¹ (marvin.r.maechler.gr@dartmouth.edu), Patrick Cavanagh², Peter U. Tse¹; ¹Dartmouth College, ²Glendon College

**33.357 Differential allocation of object-based attention across interhemispheric and intrahemispheric boundaries**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

David H. Hughes¹ (dhughes@mcw.edu), Adam J. Barnas², Adam S. Greenberg¹; ¹Joint Dept. of Biomedical Engineering at Marquette University and Medical College of Wisconsin, ²Dept. of Psychology, University of Florida

**33.358 Object-based attention improves memory fidelity for unattended same-object stimulus, but at a cost to the attended stimulus**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Isabella DeStefano¹, Timothy Brady¹; ¹University of California San Diego

**33.359 Object-based Attention Measured with SSVEPs**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mohammad Shams-Ahmar¹ (m.shamsahmar@gmail.com), Peter Kohler¹, Patrick Cavanagh¹; ¹York University

**33.360 Probing the neural plasticity of space- and object-based attentional processing**
in childhood hemispherectomy

*Sophia Robert*¹ *(srobert@andrew.cmu.edu), Michael C. Granovetter¹,², Marlene Behrmann²,¹*; *Carnegie Mellon University, ²University of Pittsburgh

**33.361 Repurposing the multiple object tracking task to assess individual differences in attention resource capacity**

*Sophia Robert*¹ *(srobert@andrew.cmu.edu), Michael C. Granovetter¹,², Marlene Behrmann²,¹*; *Carnegie Mellon University, ²University of Pittsburgh

**33.362 The influence of a moving object’s location on object identity judgments**

*Domenico Tullo*¹ *(dtullo@uci.edu), Christopher Neves², Jocelyn Faubert³, Armando Bertone⁴; ¹University of California, Irvine, ²Concordia University, ³Université de Montréal, ⁴McGill University

**33.363 Attentional tracking within and across visual hemifields and brain hemispheres.**

*Domenico Tullo*¹ *(dtullo@uci.edu), Christopher Neves², Jocelyn Faubert³, Armando Bertone⁴; ¹University of California, Irvine, ²Concordia University, ³Université de Montréal, ⁴McGill University

**33.364 The more things change the more they stay the same; a continuously changing item can define a visual object**

*Mengxin Ran*¹ *(ran.55@osu.edu), Zitong Lu¹, Julie D. Golomb¹; ¹Department of Psychology, The Ohio State University

**33.365 The Effect of Item Uniqueness on Multiple Object Tracking**

*Peter Mazalik*¹ *(pmazali1@jh.edu), Qihan Wu, Jonathan Flombaum, Justin Halberda; ¹Johns Hopkins University

**33.366 Modeling the dynamics of spreading attention in objects: Do transformers behave like humans?**

*Hossein Adeli*¹ *(hossein.adelijelodar@gmail.com), Seoyoung Ahn¹, Nikolaus Kriegerkorte², Gregory Zelinsky¹; ¹Stony Brook University, ²Columbia University

**33.367 How to ensure that animated data visualizations respect visual capacity limits**

*Ouxun Jiang*¹ *(ouxunjiang2026@u.northwestern.edu), Camilla Matuk², Steven Francomeri¹; ¹Northwestern University, ²New York University

**33.368 Selective attention reconfigures the cortical extent of visual-semantic brain networks**

*Peter Mazalik*¹ *(pmazali1@jh.edu), Qihan Wu, Jonathan Flombaum, Justin Halberda; ¹Johns Hopkins University
Perceptual Decision-Making

**33.401 Using convolutional neural networks to relate external sensory features to internal decisional evidence**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Marshall Green¹ (marshall.l.green@outlook.com), Mingjia Hu², Rachel Denison³, Dobromir Rahnev¹; ¹Georgia Institute of Technology, ²Indiana University, ³Boston University

**33.402 Competition between sensory and decisional biases in perceptual decision making**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yi Gao¹ (yi.gao0525@outlook.com), Sixing Chen², Dobromir Rahnev¹; ¹Georgia Institute of Technology, ²Peking University

**33.403 Brain signatures during perceptual decision-making index variations in internal processing and decision boundary**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Johan Nakuci¹ (jnakuci3@gatech.edu), Jason Samaha², Dobromir Rahnev¹; ¹Georgia Institute of Technology, ²University of California, Santa Cruz

**33.404 Task-irrelevant perceptual priors are represented in decision making**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Tamás Kovács¹ (kovacs_tamas@phd.ceu.edu), Yiling Yang², Johanna Klon-Lipok³, Márton Hajnal⁴, Wolf Singer²,³,⁵, Gergő Orbán⁴, Máté Lengyel¹,⁶; ¹Central European University, ²Ernst Strüngmann Institute for Neuroscience in Cooperation with Max Planck Society, ³Max Planck Institute for Brain Research, ⁴MTA Wigner Research Centre for Physics, ⁵Frankfurt Institute for Advanced Studies, ⁶University of Cambridge

**33.405 Intact Bayesian perceptual decision making and metacognition in autism**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*
Laurina Fazioli (laurina.fazioli@hotmail.fr), Bat-Sheva Hadad, Rachel Denison, Amit Yashar; Department of Special Education, Haifa University, Department of Psychological & Brain Sciences, Boston University

**33.406 A unifying theory explains seemingly contradicting biases in perceptual estimation**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Xue-Xin Wei, Michael Hahn; UT Austin, Stanford University

**33.407 Stable perception or stable decisions? Disentangling the impact of perceptual and decisional stability on visual serial dependence**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Philippe Blondé (philippe.blonde93@gmail.com), Alice Biryukov, David Pascucci, Árni Kristjánsson; Icelandic Vision Lab, University of Iceland, Laboratory of Psychophysics, École Polytechnique Fédérale de Lausanne

**33.408 Single-trial Diffusion Model estimates in perceptual decision-making with attentional modulation: Robustness and applications of basis-function parameter estimation**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Aaron Cochrane (aaron.cochrane@unige.ch), Julia Föcker, Daphné Bavelier; University of Geneva, University of Lincoln

**33.409 Endogenous activity outside the target location in Area MT predicts perceptual sensitivity in behaving marmosets**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Zachary Davis (zdavis@salk.edu), Lyle Muller, John Reynolds; The Salk Institute for Biological Studies 1 3, Western University 2

**33.410 Trade-off between search costs and accuracy in a visual and manual search task**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Ilja Wagner (ilja.wagner@psychol.uni-giessen.de), Jan Tünnermann, Anna Schubo, Alexander Schütz; Justus Liebig University Giessen (Germany), Experimental & Biological Psychology, University of Marburg (Germany)

**33.411 How do people decide which graph will be informative?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Holly Huey (hhuey@ucsd.edu), Lauren A. Oey, Hannah S. Lloyd, Judith E. Fan; University of California, San Diego

**33.412 Neural mechanisms determining the duration of task-free, self-paced visual perception.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Shira Baror, Thomas Baumgarten, Biyu Jade He; Neuroscience Institute, New York University School of Medicine, New York, NY, 10016, USA, Edmond and Lily Safra Center for Brain Sciences, Hebrew University of Jerusalem, Jerusalem 91904, Israel, Heinrich Heine University Düsseldorf, Germany
33.413 Estimating the planning complexity of visual subgoals

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Felix J Binder\(^1\) (me@felixbinder.net), Marcelo G Mattar\(^2\), David Kirsh\(^1\), Judith E Fan\(^3\); \(^1\)Cognitive Science Department, University of California San Diego, \(^2\)Psychology Department, New York University, \(^3\)Psychology Department, University of California San Diego

Color, Light and Materials: Surfaces, materials, constancy

33.414 Increment and decrement threshold vs. intensity curves for achromatic and L-cone tests.

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Yesenia Taveras-Cruz\(^1\) (taverascruz.y@northeastern.edu), Aanya Sehgal\(^1\), Rhea T. Eskew, Jr.\(^1\); \(^1\)Northeastern University

33.415 Color Calibration in Virtual Reality Using Different Head Mounted Displays

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Francisco Díaz Barrancas\(^1\) (francisco.diaz-barrancas@psychol.uni-giessen.de), Raquel Gil Rodríguez\(^1\), Avi Aizenman\(^1\), Florian S. Bayer\(^1\), Karl R. Gegenfurtner\(^1\); \(^1\)Department of Psychology. Justus-Liebig Universität, Germany

33.416 Towards latent representations of gloss in complex stimuli using unsupervised learning

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Julia Guerrero-Viu\(^1\) (juliagviu@unizar.es), Ana Serrano\(^1\), Belen Masia\(^1\), Diego Gutierrez\(^1\); \(^1\)Universidad de Zaragoza, I3A


Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Lisa P. Y. Lin\(^1\) (pui.lin@psychol.uni-giessen.de), Knut Drewing\(^1\), Katja Dörschner\(^1\); \(^1\)Justus-Liebig-Universität Giessen

33.418 A large–scale measurement of human gloss judgments revealed highly consistent and systematic failures of gloss constancy

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Takuma Morimoto\(^1\)\(^2\) (takuma.morimoto@psy.ox.ac.uk), Arash Akbarinia\(^1\), Katherine Storrs\(^3\), Jacob R. Cheeseman\(^1\), Hannah E. Smithson\(^2\), Karl R. Gegenfurtner\(^1\), Roland W. Fleming\(^1\); \(^1\)Department of Psychology, Justus-Liebig-Universität Gießen, Germany, \(^2\)Department of Experimental Psychology, University of Oxford, UK, \(^3\)School of Psychology, University of Auckland, New Zealand

33.419 Vagueness and Volume: blurred contours and the perception of depth in images

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Jeroen Stumpel\(^1\) (j.f.h.j.stumpel@uu.nl), Maarten Wijntjes, Robert Volcic; \(^1\)Utrecht University/ TU Delft, \(^2\)TU Delft,
33.420 The warm-cool color dimension aligns with asymmetries in color perception implicit in uniform color spaces
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Jake Manalansan¹, Michael Webster¹; ¹University of Nevada Reno

33.421 Measuring memory colour under metameric illuminations
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Yesesvi Konakanchi¹, Yunyang Shi², Anya Hurlbert¹; ¹Newcastle University, UK, ²Southeast University, China

33.423 Perceiving Surface Color Requires Attention
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Erin Goddard¹ (erin.goddard@unsw.edu.au), Kavita Paul Remician¹; ¹UNSW

Object Recognition: Neural organization and representations

33.424 Validity of neural distance measures in representational similarity analysis
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Fabian Soto¹ (fasoto@fiu.edu); ¹Florida International University

33.425 cneuromod-things: a large-scale fMRI dataset for task- and data-driven assessment of object representation and visual memory recognition in the human brain
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Marie St-Laurent¹,² (marie.stl@gmail.com), Basile Pinsard¹, Oliver Contier²,³, Katja Seeliger², Valentina Borghesani¹,⁴, Julie Boyle¹, Pierre Bellec¹,⁵, Martin Hebart²,⁶; ¹Centre de recherche de l’Institut universitaire de gériatrie de Montréal, Canada, ²Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ³Max Planck School of Cognition, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ⁴Faculty of Psychology and Educational Sciences, Université de Genève, Genève, ⁵Université de Montréal, Canada, ⁶Department of Medicine, Justus Liebig University Giessen, Germany

33.426 The functional profile of the ventrotemporal cortex to high-level vision, language, and attention
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Kelly J. Hiersche¹ (hiersche.1@buckeyemail.osu.edu), Jin Li¹, Zeynep M Saygin¹; ¹The Ohio State University

33.427 A cortical surface template for human neuroscience
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Ma Feilong¹ (feilong.ma@dartmouth.edu), Guo Jiahui¹, M. Ida Gobbini², James V. Haxby¹; ¹Dartmouth College, ²Università di Bologna

33.428 Representations of real objects and pictures in the dorsal and ventral visual streams differ based on physical stimulus distance
Grant Fairchild\(^1\) (grant.t.fairchild@gmail.com), Desiree Holler\(^1\), Sara Fabbri\(^1\), Michael Gomez\(^1\), Jacqueline Snow\(^1\); \(^1\)University of Nevada, Reno

**33.429 Cross-movie prediction of individualized functional topography**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Guo Jiahui\(^1\) (jiahui.guo@dartmouth.edu), Ma Feilong\(^1\), Samuel A. Nastase\(^2\), James V. Haxby\(^1\), M. Ida Gobbini\(^3\); \(^1\)Dartmouth College, \(^2\)Princeton University, \(^3\)Università di Bologna

**33.431 The dynamics of object coding within and across the hemispheres**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Amanda K. Robinson\(^1\)\(^2\) (a.robinson4@uq.edu.au), Tijl Grootswagers\(^3\), Sophia M. Shatek\(^2\), Marlene Behrmann\(^4\), Thomas A. Carlson\(^2\); \(^1\)Queensland Brain Institute, The University of Queensland, \(^2\)School of Psychology, The University of Sydney, \(^3\)The MARCS Institute for Brain, Behaviour and Development, Western Sydney University, \(^4\)Department of Ophthalmology, University of Pittsburgh

**Object Recognition: Visual preference, features and objects**

**33.432 Upper visual field advantage in object detection.**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Shuma Tsurumi\(^1\)\(^2\) (perry.super178@gmail.com), Jun Kawahara\(^1\); \(^1\)Hokkaido University, \(^2\)Chuo University

**33.433 Multisensory Learning of 3-D Novel Objects**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Hellen Kyler\(^1\) (hkyler@iu.edu), Karin James\(^2\); \(^1\)Indiana University

**33.434 Unequal contributions of color and shape to object identification in primates**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

James Cavanaugh\(^1\), Alexis C. R. Green\(^1\), Bevil R. Conway\(^1\); \(^1\)Laboratory for Sensorimotor Research / NEI / NIH

**33.435 Determinants of Canonical Forms in Memory Storage and Object Recognition**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Dongcheng He\(^1\) (dongcheng.he@du.edu), Haluk Ogmen\(^1\); \(^1\)University of Denver

**33.436 Asymmetries in fine spatial vision and cone density within the foveola**

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Samantha K. Jenks\(^1\)\(^2\) (sjenks8@ur.rochester.edu), Jenny L. Witten\(^3\), Benjamin Moon\(^2\)\(^4\), Ashley M. Clark\(^1\)\(^2\), Sanjana Kapisthalam\(^1\)\(^2\), Wolf M. Harnening\(^3\), Martina Poletti\(^1\)\(^2\)\(^5\); \(^1\)Department of Brain and Cognitive Sciences, University of Rochester, Rochester, NY, USA, \(^2\)Center for Visual Science, University of Rochester, Rochester, NY, USA, \(^3\)Department of Ophthalmology, Rheinische Friedrich-Wilhelms-Universität Bonn, Ernst-Abbe-Str. 2, Bonn 53127, Germany, \(^4\)Institute of Optics, University of Rochester, Rochester, NY, USA, \(^5\)Department of Neuroscience, University of Rochester, Rochester, NY, USA
Eye Movements: Saccades and pursuit

33.437 Posterior parietal cortex damage causes endpoint biases relative to the visual target during anti-saccades

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Julie Ouerfelli-Ethier¹,², Romain Fournet¹, Laure Pisella², Aarlenne Khan¹; ¹University of Montreal, ²Lyon Neuroscience Research Center, Trajectoires team

33.438 Saccades alter cortical network modularity and decrease lateralization in a visual perception task

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Amirhossein Ghaderi¹,² (ghaderi@yorku.ca), Matthias Niemeier³,¹,², John Douglas Crawford¹,²,⁴,⁵,⁶, ¹Centre for Vision Research, York University, Toronto, ON, Canada, ²Vision Science to Applications (VISTA) Program, York University, Toronto, ON, Canada, ³Department of Psychology, University of Toronto Scarborough, Toronto, ON, Canada, ⁴Department of Biology, York University, Toronto, ON, Canada, ⁵Department of Kinesiology and Health Sciences, Toronto, ON, Canada, ⁶Department of Psychology, York University, Toronto, ON, Canada

33.439 Serial dependence during saccades is mediated by alpha rhythms

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Chiara Terzo¹ (chiarterzo95@gmail.com), Giacomo Ranieri¹, Xinyu Xe², David Charles Burr¹, Maria Concetta Morrone³; ¹University of Florence, Florence, Italy, ²East China Normal University, Shanghai, China, ³University of Pisa, Pisa, Italy

33.440 Saccadic adaptation changes perception of the saccade target object

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jessica Parker¹ (jparke87@vols.utk.edu), Madeline Embrey¹, A. Caglar Tas¹; ¹University of Tennessee, Knoxville

33.441 Does visual uncertainty influence saccadic adaptation?

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Matteo Lisi¹, Joshua Solomon², Michael Morgan²; ¹Royal Holloway, University of London, ²City, University of London

33.442 Adaptive changes to saccade amplitude and target localization induced only by post-saccadic feedback

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Frauke Heins¹,² (frauke.heins@uni-muenster.de), Jana Masselink¹,², Joshua-Nikodemus Scherer¹, Markus Lappe¹,²; ¹University of Muenster, ²Otto-Creutzfeldt Center for Cognitive and Behavioral Neuroscience

33.443 A comparison of the temporal dynamics of pre-saccadic and pre-microsaccadic vision

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Zoe Stearns¹,² (zstearn2@ur.rochester.edu), Martina Poletti¹,²; ¹University of Rochester, ²Center for Visual Science
### Influence of reward on saccadic vigor and pre-saccadic attention

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Oliver L. Steiner¹ (oliverr.e.steiner@hotmail.de), Lukasz Grzeczkowski¹, Madeleine Gross², Martin Rolfs¹; ¹Department of Psychology, Humboldt-Universität zu Berlin, Germany, ²Psychological and Brain Science Department, University of California, Santa Barbara, CA, USA

### Smooth pursuit eye movements incorporate the knowledge of Newtonian mechanics and other cues for motion prediction

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jie Z. Wang¹ (jwang255@ur.rochester.edu), Abdul-Rahim Deeb², Fulvio Domini², Eileen Kowler³; ¹University of Rochester, ²Brown University, ³Rutgers University - New Brunswick

### Inability to pursue non-rigid motion produces instability of spatial perception

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Krischan Koerfer¹ (krischan.koerfer@uni-muenster.de), Tamara Watson², Markus Lappe¹; ¹University of Muenster, ²Western Sydney University

### Representation of an object through visual occlusion

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Austin Behel¹, Lina Teichmann¹, Grace Edwards¹, Chris Baker¹; ¹NIMH/NIH

### Spatial Vision: Neural mechanisms

#### Pupil-linked arousal modulates precision of representation in cortex

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Laura Geurts¹ (l.geurts@donders.ru.nl), Janneke Jehee¹; ¹Donders Institute for Brain, Cognition and Behaviour, Radboud University

#### Spatial Tuning of Alpha Oscillations in Human Visual Cortex

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Kenichi Yuasa¹ (ky689@nyu.edu), Iris Groen², Giovanni Piantoni³, Stephanie Montenegro⁴, Adeen Flinker⁴, Sasha Devore⁴, Orrin Devinsky⁴, Werner Doyle⁴, Patricia Dugan⁴, Daniel Friedman⁴, Nick Ramsey³, Natalia Petridou³, Jonathan Winawer¹; ¹New York University, ²University of Amsterdam, ³University Medical Center Utrecht, ⁴New York University School of Medicine

#### Anodal tDCS alters appearance

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Sang Wook Hong¹,² (shong6@fau.edu), Yosun Yoon¹,²; ¹Department off Psychology, Florida Atlantic University, ²Stiles-Nicholson Brain Institute, Florida Atlantic University

#### Improving the reliability and accuracy of population receptive field measures using a ‘log-bar’ stimulus

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*
33.452 Evidence for high-level processing in a Ponzo-like size illusion
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Kelly Chang, Ione Fine, Geoffrey Boynton; Department of Psychology, University of Washington, Seattle

33.453 Simple, automatized and reproducible pRF analysis
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Ecem Altan, Huseyin Boyaci, D. Samuel Schwarzkopf; University of Auckland, New Zealand, Bilkent University, Turkey, University of Giessen, Germany, University College London, United Kingdom

33.454 Orientation-tuned normalization modulates the gain of visuocortical contrast responses in humans
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

David Linhardt, Christian Windischberger, Pedro Paz-Alonso, Garikoitz Lerma-Usabiaga; Medical University of Vienna, Austria, Basque Center on Cognition, Brain & Language, San Sebastián, Spain

33.455 Characterizing the relationship between population spatial frequency tuning and receptive field size
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Michaela Klimova, Ilona M. Bloem, Sam Ling; Boston University, New York University

33.456 Comparison of the visual discharge properties of primate superior colliculus and primary visual cortex neurons
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Emily Wiecek, Luis D. Ramirez, Michaela Klimova, Sam Ling; Boston Children’s Hospital, Harvard Medical School, Boston University

33.457 Larger area size, not increased number, better explains expansion of human visual cortex
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Emily Meyer, Michael Arcaro; University of Pennsylvania

33.458 Compressive spatiotemporal summation predicts simultaneous suppression in human visual cortex
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

Eline R Kupers, Insub Kim, Kalanit Grill-Spector; Stanford University

33.459 The impact of noise correlations on the information contained in visual cortical activity
Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion

James R.H. Cooke, Janneke F.M. Jehee; Donders Institute for Brain, Cognition and Behavior
Strong radial bias, but no evidence of oblique effect from high-resolution data in primary visual cortex

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Qi Chen¹, Karen Navarro², Cheryl Olman³; ¹University of Minnesota

Retinotopic connectivity maps are robust to large eye movements and optical blur

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
D. Samuel Schwarzkopf¹,² (s.schwarzkopf@auckland.ac.nz), Gene T. Tangtartharakul¹, Catherine A. Morgan¹, Simon K. Rushton³; ¹University of Auckland, New Zealand, ²University College London, ³Cardiff University, Wales

Population receptive field properties change dynamically within milliseconds

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Katharina Eickhoff¹,²,³, Arjan Hillebrand⁴, Maartje C. de Jong¹,²,⁵, Serge O. Dumoulin¹,²,³,⁶; ¹Spinoza Centre for Neuroimaging, Amsterdam, the Netherlands, ²Netherlands Institute for Neuroscience, Amsterdam, the Netherlands, ³Vrije Universiteit, Amsterdam, the Netherlands, ⁴Department of Clinical Neurophysiology and Magnetoencephalography Centre, Amsterdam UMC, the Netherlands, ⁵University of Amsterdam, the Netherlands, ⁶Utrecht University, the Netherlands

Laplacian reference is optimal for steady-state visual evoked potentials

Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion
Yuan Zhang¹ (zhanglhm@163.com), Matteo Valsecchi², Karl Gegenfurtner³, Jing Chen¹; ¹Shanghai University of Sports, ²Universitá di Bologna, ³Justus-Liebig-Universität Gießen

Sunday Afternoon Posters in Banyan Breezeway

Development: Neural mechanisms and eye movements

The HEALthy Brain and Child Development (HBCD) Study: Relevance to the Vision Sciences Community

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Lisa S. Scott¹ (lscott@ufl.edu), Maeve R. Boylan¹, Jens T. Rosenberg¹, Andreas Keil¹, Sara B. DeMauro²; ¹University of Florida, ²Children’s Hospital of Philadelphia

Assessing the Reliability of ERP, SSVEP, and Oscillatory Data Methodology for Visual Paradigms in Infant EEG

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Maeve R. Boylan¹ (mboylan@ufl.edu), Jessica Sanches Braga Figueria¹, Mina Elhamiasl¹, Isabela da Silva Andrade¹, Ryan Barry-Anwar¹, Andreas Keil¹, Lisa S. Scott¹; ¹University of Florida

Brain Responses to Symmetry during Early Infancy

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Peter J. Kohler¹ (pjkohler@yorku.ca), Shaya Samet¹, Yara Iskandar¹, Lara Pierce¹; ¹York University, Toronto, ON,
**36.304 Neural mechanisms of surface feature label learning in early childhood**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Alexis McCraw¹ (amccraw@vols.utk.edu), Kara Lowery¹, Rachel Eddings¹, Jacqueline Sullivan¹, Hollis Heim¹, Aaron Buss¹; ¹University of Tennessee

**36.305 Strobe-rearing preserves motion selectivity but disrupts direction selectivity in macaque area MT**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Saloni Sharma¹, Michael Arcaro², Margaret Livingstone¹; ¹Harvard Medical School, ²University of Pennsylvania

**36.307 Youth is not wasted on the young: Late-in-life sight restoration in congenitally blind children leads to the emergence of some visual constructional skills but not others**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sharon Gilad-Gutnick¹ (sharongu@mit.edu), Pragya Shah², Priti Gupta³, Mrinalini Yadav², Chetan Ralekar¹, Dhun Verma², Umang Mathur⁴, Suma Ganesh⁴, Pawan Sinha¹; ¹Massachusetts Institute of Technology, ²Project Prakash, ³IIT-Delhi, ⁴Shroff Charitable Eye Hospital

**36.308 Experience is required to develop visual-nonvisual multisensory integration capabilities**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Barry Stein¹ (bestein@wakehealth.edu), Benjamin Rowland¹; ¹Wake Forest School of Medicine

**36.309 The building blocks of vision: evidence for a hierarchical, retinotopic organization in the human neonate brain**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Michael Arcaro¹; ¹University of Pennsylvania

**36.310 Development of Peak Alpha Frequency During Infancy**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Mina Elhamiasl¹ (melhamiasl@ufl.edu), Jessica Sanches Braga Figueira¹, Ryan Barry-Anwar¹, Andreas Keil¹, Lisa S. Scott¹; ¹University of Florida

**36.311 Phonemic Discrimination and Eye Movements in Infants**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Shir Kay¹ (shirkay4@yorku.ca), Scott A. Adler¹; ¹York University

**36.312 Perspective matters: the role of scene point of view on infants’ looking strategies**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Christian Nelson¹ (chnelson@ucdavis.edu), Taylor Hayes¹, John Henderson¹, Lisa Oakes¹; ¹University of California, Davis
**36.313 The Distribution of Gaze Positions of Human Infants in Natural Behavior**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

T Rowan Candy¹ (rcandy@indiana.edu), Adam Dalessandro¹, Victoria Tellez¹, Stephanie Biehn¹, Clara Mestre¹, Taylor Haaff¹, Kathryn Bonnen¹, Linda Smith¹; ¹Indiana University

**Eye Movements: Visual Impairment**

**36.314 Altered eye movements during reading under various types of visual field defects**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Haojue Yu¹ (yu.haoj@northeastern.edu), MiYoung Kwon¹; ¹Northeastern University

**36.315 Consistency of the PRL Across Vergence Demand as a Measure of Objective Fixation Disparity**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Norick R. Bowers¹,² (norick.bowers@psychol.uni-giessen.de), Susana T. L. Chung², Martin S. Banks², Austin Roorda²; ¹Justus Liebig Universität Gießen, ²University of California Berkeley, Herbert Wertheim School of Optometry & Vision Science

**36.316 Eye-tracking to quantify visual function in individuals with vision impairment: A systematic review**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ward Nieboer¹ (wardnieboer@gmail.com), Andrea Ghiani¹, Ralph de Vries¹, Eli Brenner¹, David Mann¹; ¹Vrije Universiteit Amsterdam

**36.317 Flicker Impairs Reading Speed: Impacts on the Visually Sensitive**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sarah M Haigh¹ (shaigh@unr.edu), Caitlin A Laycox¹, Lauren Thompson², Jasmine A Haggerty¹, Arnold J Wilkins³; ¹University of Nevada, Reno, ²Vassar College, ³University of Essex

**36.318 Changes in eye condition using eye movement training application**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Hyungoo Kang¹,² (hgkang@cku.ac.kr), Sejoon Moon², Kyunghyun Park¹, Ji Hye Kim¹, Ji Won Lee¹, Minji Gil², Ye Jin Jang², beom jun Kim², Sang-il Park¹,²; ¹Dept. of Optometry, Catholic Kwandong Univ., ²Dept. of Biomedical engineering, Catholic Kwandong Univ.

**Motion: Local, in depth**

**36.319 Retinal Slip from Self Motion Modulates the Perceptibility of Jitter in World-Locked Augmented Reality**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Hope Lutwak¹,² (hl1239@nyu.edu), T. Scott Murdison¹, Kevin W. Rio¹; ¹Reality Labs, Meta Platforms Inc., ²New York University
36.320 Frame induced position shifts extend outside the frame in space but not in time
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
B. Marius ‘t Hart¹ (thartbm@gmail.com), Patrick Cavanagh¹,²,³; ¹Centre for Vision Research, York University, Toronto, ON, Canada, ²Department of Psychology, Glendon College, Toronto, ON, Canada, ³Department of Psychological and Brain Sciences, Dartmouth College, Hanover, NH, USA

36.321 The effects of stimulus size and auditory input on speed perception
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Gözde Şentürk¹, Inci Eke¹, Emin Kılıç¹; ¹Middle East Technical University, Northern Cyprus Campus, Psychology Program

36.322 Trajectory Estimation in Amblyopia
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Ziad Lamliili El Mazou Nadori¹ (ziad.lamlilielmaouinadori@mail.mcgill.ca), Alexandre Reynaud²; ¹First Year Medical Student, McGill University, ²Ophthalmology & Visual Sciences, McGill Vision Research

36.323 Effects of Local and Global Cues on Oculomotor and Perceived of Movement
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Joonsik Moon¹ (moon.joo@northeastern.edu), Peter Bex¹; ¹Northeastern University

36.324 Correlation between perceived size and depth changes in the Dynamic Ebbinghaus illusion
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Saki Takao¹,² (sakitakao76@gmail.com), Katsumi Watanabe², Patrick Cavanagh¹; ¹Glendon College of York University, ²Waseda University

36.325 Height-in-Field Cues Affect Motion-in-Depth Speed Discrimination
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Ross Goutcher¹ (ross.goutcher@stir.ac.uk), Lauren Murray¹; ¹University of Stirling

36.326 Single-trial fMRI decoding of 3D motion based on stereoscopic and perspective cues
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Puti Wen² (pw1246@nyu.edu), Michael Landy¹, Bas Rokers¹,²; ¹New York University, ²New York University Abu Dhabi

36.327 Introspective inference counteracts perceptual distortion
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Andra Mihali³ (alm652@nyu.edu), Marianne Broeker, Florian Ragalmuto, Guillermo Horga; ¹Columbia University, ²University of Oxford, ³Vrije Universiteit Amsterdam, ⁴New York State Psychiatric Institute

36.328 ZOOM: a robust and more accurate adaptive procedure to quantify perception
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
36.329 The effect of tobacco use on performance in a structure-from-motion task among patients with psychotic psychopathology.
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Kyle W. Killebrew1 (kkillebr@umn.edu), Hannah R. Moser1, Andrea Grant2, Scott R. Sponheim1,3, Justin Anker1, Micheal-Paul Schallmo1; 1Department of Psychiatry and Behavioral Sciences, University of Minnesota, 2Center for Magnetic Resonance Research, University of Minnesota, 3Veterans Affairs Medical Center, Minneapolis, MN

Attention: Individual differences

36.330 Inter-individual variations in internal noise correlate with visual attention but not with post-perceptual processes
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Felipe Luzardo1 (felipedavidluzardo@gmail.com), Yaffa Yeshurun1; 1University of Haifa

36.331 Autistic group differences in social attention are magnified by real-world perceptual and linguistic features
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Amanda J Haskins1 (ajh.gr@dartmouth.edu), Jeff Mentch2, Thomas L. Botch1, Brenda D. Garcia1, Alexandra L. Burrows1, Caroline E. Robertson1; 1Dartmouth College, 2Harvard University

36.332 Characterizing the consistency and malleability of sustained attention performance
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Anna Corriveau1, Anthony James Jr.1, Monica D. Rosenberg1; 1University of Chicago

36.333 Reliability of Individual Difference Measures of Target Enhancement and Distractor Suppression
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Natalia Khodayari1 (nkhodayari@jhu.edu), Howard Egeth1, Susan Courtney1; 1Johns Hopkins University

36.334 Stability of Individual Differences in Implicitly Guided Attention
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Chen Chen1 (chen5954@umn.edu), Vanessa G. Lee1; 1University of Minnesota

36.335 Stable individual differences in gaze behavior reflect unique conceptual priority maps
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Katherine Packard1, Amanda J. Haskins1, Caroline E. Robertson1; 1Dartmouth College

36.336 Filtering of visual distractors in schizophrenia: Diminished attentional control predicts behavioral deficits
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Scott Sponheim\(^1\)\(^2\) (sponh001@umn.edu), Peter Lynn\(^2\); \(^1\)Minneapolis VA Health Care System, \(^2\)University of Minnesota, Twin Cities

**36.337 Use of facial expressions to estimate level of attention while watching video lectures.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Renjun miao\(^1\)\(^2\) (miaorenjun@gmail.com), Haruka Kato\(^1\), Yasuhiro Hatori\(^1\), Yoshiyuki Sato\(^1\), Satoshi Shioiri\(^1\); \(^1\)TOHOKU UNIVERSITY, \(^2\)POPER

---

**Visual Working Memory: Interference**

**36.338 Can items in visual working memory be shielded from visual interference while in use?**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Eva Lout\(^1\) (lout.2@osu.edu), Blaire Dube\(^1\), Julie D. Golomb\(^1\); \(^1\)The Ohio State University

**36.339 Differently prioritized working memory items are differently protected from perceptual interference.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Koeun Jung\(^1\) (jungke1225@gmail.com), Suk Won Han\(^1\), Yoonki Min\(^1\); \(^1\)Chungnam National University

**36.342 Spontaneous detection of Visual Working Memory failures and subsequent performance recovery**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Olga Kozlova\(^1\) (olga.kozlova@mail.utoronto.ca), Keisuke Fukuda\(^1,2\); \(^1\)University of Toronto Mississauga, \(^2\)University of Toronto

**36.343 The effect of masking on visual working memory pointer-system**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Shani Friedman\(^1\) (shanibuch@gmail.com), Roy Luria\(^2\); \(^1\)Tel-Aviv University

**36.344 Verbal interference with visual working memory**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Andreea-Maria Gui\(^1,2\), Joana Pereira Seabra\(^1,2\), Thomas B. Christophe\(^1,2\); \(^1\)Bernstein Center for Computational Neuroscience Berlin, Germany, \(^2\)Humboldt-Universität zu Berlin, Germany

**36.345 When can working memory consolidation be interrupted?**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Brandon Carlos\(^1\) (bjcarlos@uh.edu), Benjamin Tamber-Rosenau\(^1\); \(^1\)University of Houston

**36.346 Working memory is robust to distractors but not sensory uncertainty**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Holly Kular\(^1\) (hkular@ucsd.edu), Kirsten Adam\(^1\), John Serences\(^1\); \(^1\)University of California San Diego

**36.347 Neural encoding and dynamics of visual working memory during distraction**
36.348  Inter-item competition during encoding and maintenance  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Janna Wennberg¹ (jwennber@ucsd.edu), John Serences¹; ¹University of California, San Diego  

36.349  Event Working Memory Selectively Impairs Dynamic Tracking  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Qi Gao¹ (qi.gao@zju.edu.cn), Xiaochi Ma¹, Mowei Shen¹, Zaifeng Gao¹; ¹Zhejiang University  

36.350  Naturalistic visual input during the working memory delay reduces microsaccades but increases recall error  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Amit Rawal¹,² (amitraval1643@gmail.com), Rosanne L. Rademaker¹; ¹Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with the Max Planck Society, Frankfurt, Germany, ²Vrije Universiteit Amsterdam  

36.351  Working memory representations modulate the magnitude of the similarity-induced memory bias  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Nursima Ünver¹ (nursima.unver@mail.utoronto.ca), Rosanne Rademaker², Keisuke Fukuda¹,³; ¹University of Toronto, Toronto, Canada, ²Ernst Strüngmann Institute for Neuroscience, Max Planck Society, Frankfurt, Germany, ³University of Toronto Mississauga, Toronto, Canada  

Visual Working Memory: Attention, load and capacity  
36.353  Investigating visual working memory capacity using a highly reliable change localization task  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Temilade Adekoya¹ (tyadekoya@uchicago.edu), Chong Zhao², Edward Vogel³, Edward Awh⁴; ¹University of Chicago  

36.354  The Effects of Physical Effort on Working Memory Encoding  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Li Yang¹ (liyang147@ucr.edu), Hyung-Bum Park¹, Weiwei Zhang¹; ¹University of California, Riverside  

36.355  The Impact of Visual Working Memory Chunking on Visual Search  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway  
Logan Doyle¹ (logan.doyle@mail.utoronto.ca), Susanne Ferber²; ¹University of Toronto  

36.356  Working Memory Precision Under Physical Effort  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
36.357 Unimodal load selectively reduces recruitment of sensory cortices for working memory storage

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Lilian Azer1 (lazer001@ucr.edu), Weiwei Zhang1; 1University of California, Riverside

Vivien Chopurian1,2,3 (vivien.chopurian@bccn-berlin.de), Simon Weber1,2,3, Thomas Christophel1,2,3; 1Humboldt University of Berlin, 2Bernstein Center for Computational Neuroscience Berlin, 3Berlin Center for Advanced Neuroimaging

36.358 Focusing attention in long-term and working memory improves recall and guides perception

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Dongyu Gong1,2 (dongyu.gong@new.ox.ac.uk), Dejan Draschkow1,2, Anna C. Nobre1,2; 1Oxford Centre for Human Brain Activity, Wellcome Centre for Integrative Neuroimaging, University of Oxford, UK, 2Department of Experimental Psychology, University of Oxford, UK

36.359 Univariate and multivariate load-dependent signals in human cortex

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Kirsten Adam1 (kadam@ucsd.edu), Edward Awh2, John Serences1; 1University of California San Diego, 2University of Chicago

36.360 The role of theta and alpha oscillations in control of visual working memory-guided attention

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Stephanie Saltzmann1 (ssaltz2@lsu.edu), Melissa Beck1; 1Louisiana State University

36.361 Sustained Attention and Cue Prioritization in Visual Working Memory

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Summer Sheremata1 (ssheremata@fau.edu), Valorie Wiseman; 1Florida Atlantic University

36.362 Attention to remembered items eliminates visual field biases

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Harun Yörük1 (harunyoruk42@gmail.com), Benjamin J. Tamber-Rosenau1; 1University of Houston

36.363 Visual working memory and perception share their spatial but not attentional resolution

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Stephanie Saltzmann1 (ssaltz2@lsu.edu), Melissa Beck1; 1Louisiana State University

36.364 Learned Distractor Rejection Falls Prey to the Attentional White Bear

Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Aditya Prakash\(^1\) (adiprakash@uiowa.edu), Andrew Hollingworth\(^2\); \(^1\)University of Iowa, Department of Psychological and Brain Sciences

**36.365 Memory guidance of attentional sampling, visual search, and working memory use during natural behaviour in virtual reality.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Dejan Draschkow\(^1\), Levi Kumle\(^1\), Rhianna Watt\(^1\), Sage Boettcher\(^1\), Anna C. Nobre\(^1\); \(^1\)University of Oxford

**Perceptual Decision-Making: Confidence**

**36.366 Falsifying the Bayesian confidence hypothesis**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kai Xue\(^1\) (kxue33@gatech.edu), Medha Shekhar\(^1\), Dobromir Rahnev\(^1\); \(^1\)Georgia Institute of Technology

**36.367 Characterizing the metaperceptual function across the entire visual field**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Angela Shen\(^1\) (angela.shen@uci.edu), Megan A. K. Peters\(^1\); \(^1\)University of California, Irvine

**36.368 Optimal metacognitive decision strategies in Signal Detection Theory**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Megan Peters\(^1\), Lucie Charles\(^2\), Brian Maniscalco\(^1\); \(^1\)University of California Irvine, \(^2\)Institute of Cognitive Neuroscience, University College London

**36.369 Confidence Ratings Reflect Conscious but not Unconscious Perception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Trevor Caruso\(^1\) (trevorcaruso@gmail.com), Richard Brown\(^1\), Tony Ro\(^1\); \(^1\)CUNY Graduate Center

**36.370 Two distinct neural representations of confidence in categorization of a natural image**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Xuan Cui\(^1\), Yaocong Duan\(^1\), Yuening Yan\(^1\), Christopher Benwell\(^2\), Robin Ince\(^1\), Philippe Schyns\(^1\); \(^1\)School of Psychology and Neuroscience, University of Glasgow, Glasgow, United Kingdom, \(^2\)School of Social Sciences, University of Dundee, Dundee, United Kingdom

**36.371 Why you should lack confidence in signal-detection-based analyses of confidence**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Derek Arnold\(^1\) (d.arnold@psy.uq.edu.au), Alan Johnston\(^2\), Joshua Adie\(^3\), Kielan Yarrow\(^4\); \(^1\)Perception Lab, The University of Queensland, \(^2\)School of Psychology, The University of Nottingham, \(^3\)Research Institute for Sport & Exercise, University of Canberra, \(^4\)Department of Psychology, City University London

**Sunday Afternoon Posters in Pavilion**

**Plasticity and Learning: Statistical learning**
36.401 Dissociating subjective and objective awareness reports using priming
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Karen Tian¹ (ktian@bu.edu), Meghan Walsh¹, Rachel Denison¹; ¹Boston University

36.402 Statistical learning facilitates the selection of stimuli into awareness
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Luzi Xu¹ (l.xu2@uu.nl), Chris Paffen¹, Stefan Van der Stigchel¹, Surya Gayet¹; ¹Utrecht University

36.403 Learning to direct attention in space and time
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Zhenzhen Xu¹ (z.z.xu@vu.nl), Sander A. Los², Jan Theeuwes³; ¹Vrije Universiteit Amsterdam, ²Institute Brain and Behavior Amsterdam (iBB A)

36.404 Similarity enhances visual statistical learning
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Alyssa Levy¹ (alevalt@udel.edu), Timothy Vickery¹; ¹University of Delaware

36.406 Active inference slows reversal learning in uncertain environments
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Jet Lageman¹ (j.lageman@vu.nl), Johannes J. Fahrenfort¹, Heleen A. Slagter¹; ¹Vrije Universiteit Amsterdam

Plasticity and Learning: Tasks, models

36.407 Perceptual adaptation leads to changes in encoding accuracy that match those of a recurrent neural network optimized for predicting the future
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Jiang Mao¹ (jiangmao@sas.upenn.edu), Constantin A. Rothkopf², Alan A. Stocker¹; ¹University of Pennsylvania, ²Centre for Cognitive Science, Technical University of Darmstadt

36.408 Generalization in perceptual learning across stimuli and tasks in varied adaptation levels.
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Ravit Kahalani¹ (ravitk27@gmail.com), Maria Lev¹, Dov Sagi², Uri Polat¹; ¹School of Optometry and Vision Science, Faculty of Life Science, Bar-Ilan University, Ramat-Gan, ²The Weizmann Institute of Science, Rehovot, Israel

36.409 Contour erasure affects the contrast threshold for grating targets
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Yih-Shiuan Lin¹ (yihshiuan.lin@gmail.com), Chien-Chung Chen²³, Mark W Greenlee¹; ¹Institute of Psychology, University of Regensburg, ²Department of Psychology, National Taiwan University, ³Neurobiology and Cognitive Science Center, National Taiwan University

36.410 Non-monotonic plasticity from real–time inception of competition between object representations
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Kailong Peng¹,² (kailongpeng001@gmail.com), Jefferey D. Wammes³, Alex Nguyen⁵,⁶, Marius Cătălin Iordan⁷,⁸, Kenneth A. Norman⁵,⁶, Nicholas B. Turk-Browne¹,⁹; ¹Department of Psychology, Yale University, ²Interdepartmental Neuroscience Program, Yale University, ³Department of Psychology, Queen's University, ⁴Center for Neuroscience Studies, Queen's University, ⁵Department of Psychology, Princeton University, ⁶Princeton Neuroscience Institute, Princeton University, ⁷Department of Brain and Cognitive Sciences, University of Rochester, ⁸Department of Neuroscience, University of Rochester, ⁹Wu Tsai Institute, Yale University

36.411 Channel-specific perceptual learning of texture detection

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Zahra Hussain¹ (zahra.hussain@plymouth.ac.uk), Melissa Allouche²; ¹University of Plymouth, ²American University of Beirut

36.412 PLFest: A cross-platform application to support open science in perceptual learning research

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Samyukta Jayakumar¹ (samyukta.jayakumar@email.ucr.edu), Marcello Maniglia¹, Trevor Stavropoulos³, Hong Guan², C. Shawn Green², Aaron Seitz¹; ¹University of California, Riverside, ²University of Wisconsin-Madison, ³TAS Consulting

36.413 Paired Comparisons Effectively Drive the Learning of Multi-Category Perceptual Learning

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Victoria L. Jacoby¹ (vjacoby@ucla.edu), Christine M. Massey¹, Philip J. Kellman¹; ¹University of California, Los Angeles

36.414 Delayed feedback limits performance improvements in orientation perceptual learning

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Jiajuan Liu¹ (jiajuanl@gmail.com), Zhong-Lin Lu², Barbara Dosher¹; ¹University of California, Irvine, ²New York University

36.415 Enhancing Multi-Category Perceptual Learning Using Signal Detection Theory Concepts in Dermatologic Cancer Screening

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Philip Kellman¹ (kellman@cognet.ucla.edu), Sally Krasne¹, Everett Mettler¹, Timothy Burke¹, Christine Massey¹; ¹University of California, Los Angeles

36.416 Non-parametric Hierarchical Bayesian Modeling of the Learning Curve in Perceptual Learning

Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion

Zhong-Lin Lu¹,² (zhonglin@nyu.edu), Yukai Zhao², Jiajuan Liu³, Barbara Dosher³; ¹NYU Shanghai, ²NYU, ³UCI

Binocular Vision: Integration and rivalry
36.417 Perceptual selection of a musical score during binocular rivalry reported by a relevant action with or without auditory feedback.
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Jiyoung Oh¹ (ojy900@korea.ac.kr), Chai-Youn Kim¹; ¹School of Psychology, Korea University, Seoul, Korea

36.418 Direct MEG Comparison of Binocular Rivalry and Monocular Pattern Rivalry
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Austin Cooper¹ (austin.cooper@mail.mcgill.ca), Eric Mokri¹, Jason Da Silva Castanheira², Janine Mendola¹; ¹Department of Ophthalmology and Visual Sciences, McGill University, Montreal, Quebec, Canada, ²Department of Neurology and Neurosurgery and the McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada

36.419 Gradual changes in monocular neural signals during long dominance periods in binocular rivalry
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Shaozhi Nie¹ (nie00043@umn.edu), Stephen Engel¹; ¹University of Minnesota

36.420 Investigating the temporal dynamics of dichoptic masking
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Daniel Gurman¹ (daniel.gurman@mail.mcgill.ca), Alexandre Reynaud¹; ¹Department of Ophthalmology and Visual Sciences, McGill University

36.421 Ocularity-contingent monocular and binocular responses and ocularity functional organizations of V1 superficial-layer neurons in macaques
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
shenghui zhang¹, xingnan zhao¹, shiming tang¹,²,³, cong yu¹,³,⁴; ¹PKU-Tsinghua Center for Life Sciences, ²School of Life Sciences, Peking University, ³IDG-McGovern Institute for Brain Research, ⁴School of Psychological and Cognitive Sciences, Peking University

36.422 Learning to discriminate the eye-of-origin during continuous flash suppression
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Izel Sari¹, Samuel Recht², Claudia Lunghi¹; ¹Laboratoire des systèmes perceptifs, Département d’études cognitives, École normale supérieure, PSL University, CNRS, ²Department of Experimental Psychology, University of Oxford

36.423 The sensitivity of human observers to the eye of origin of visual information
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Aishwarya Ravi¹ (aishravi@iu.edu), Clara Mestre¹, Charlene Ubah¹, Jenny C A Read², Rowan Candy¹; ¹Indiana University School of Optometry, ²Biosciences Institute, Newcastle University, UK

36.424 Integration and Suppression Interact in Binocular Vision
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion
Rong Jiang¹ (1099072076@qq.com), Ming Meng¹; ¹South China Normal University
36.425 Evidence for binocular differencing and summing channels for chromatic stimuli

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Yoel Yakobi¹, Clara Wang¹, Frederick Kingdom¹; ¹McGill University

36.426 Interhemispheric gamma-band synchronization in visual cortex induced by tACS promotes interocular grouping

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Yosun Yoon¹,² (yosunyoon@gmail.com), Sang Wook Hong¹,²; ¹Department of Psychology, Florida Atlantic University, ²Stiles-Nicholson Brain Institute, Florida Atlantic University

36.427 A dichoptic advantage for detecting out-of-phase modulations of density and contrast

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Michael Morgan¹ (michaelmorgan9331@gmail.com), Kristina Zeljic-Cozma¹, Joshua Solomon¹; ¹City, University of London

36.428 Binocular contrast adaptation explained by separate gain controls before and after the site of binocular summation

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Frederick Kingdom¹ (fred.kingdom@mcgill.ca), Paul Lerner², Mark Georgeson³; ¹McGill University, ²University of Alberta, ³Aston University

3D: Shape

36.429 Increasing motion parallax gain compresses space and 3D object shape

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Xue Teng¹ (xteng@eecs.yorku.ca), Robert Allison¹, Laurie Wilcox¹; ¹Centre for Vision Research, York University

36.430 Evidence of lack of integration of binocular disparity and motion parallax in object segmentation

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Teodora Neagu¹ (teo.neagu@rogers.com), Rebecca Hornsey¹, Arleen Aksay¹, Laurie M Wilcox¹; ¹Department of Psychology, Centre for Vision Research, York University, Toronto, Canada

36.431 Surface Attitude Judgements in Real-World Scenes

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

C. Stella Qian¹ (c.qian3@aston.ac.uk), James H. Elder², Erich W. Graf³, Wendy J. Adams³, Andrew J. Schofield¹; ¹Aston University, UK, ²York University, Canada, ³University of Southampton, UK

36.432 The size of a novel object is learned rapidly, and unlearned slowly, for purposes of computing apparent distance.

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Albert Yonas¹ (yonas@umn.edu), Sahana Lawrence¹, Emily Martin¹, Carl Granrud², Ben Backus³, Sherryse
36.433 Size perception of 3D objects in general poses

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Dawson Lin¹, Akihito Maruya², Qasim Zaidi²; ¹Dwight-Englewood School, Englewood, USA, ²SUNY College of Optometry

36.434 The Role of Orthogonality and Compactness in Recovering 3D Symmetrical Shapes

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Mark Beers¹ (beersm@uci.edu), Zygmunt Pizlo¹; ¹University of California, Irvine

36.435 Perceptual Learning of Feelies

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Catherine Dowell¹ (catherine.dowell@usm.edu), Alen Hajnal¹; ¹University of Southern Mississippi

36.436 Dynamic graph convolutional networks do not recognize global 3D shapes

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Shuhao Fu¹ (fushuhao@ucla.edu), Zhiqi Zhang¹, Philip Kellman¹, Hongjing Lu¹; ¹University of California, Los Angeles

36.437 The effects of lighting direction and rotation on the perceived 3D shape of faces

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jordi Asher¹, Abigail Webb², Paul Hibbard¹; ¹University of Essex, ²Institute of Health and Wellbeing, University of Suffolk

36.438 Unsupervised learning can predict properties of non-rigid mirror objects in ambiguous conditions

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Omer F. Yildiran¹-² (omer.yildiran@ens.psl.eu), Katherine R. Storrs³, Roland W Fleming², Katja Doerschner²; ¹École normale supérieure - PSL, Paris, France, ²Justus Liebig University, Giessen, Germany, ³University of Auckland, Auckland, New Zealand

36.439 Sphere Stimuli in the Mental Rotation Task: A new set of Ecologically Valid stimuli with Comparative Performance to Traditional Cube Stimuli

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Brandon Eich¹ (beich1@lsu.edu), Melissa Beck¹, Xinrui Jiang², Gaojie Fan¹; ¹Louisiana State University, ²Datacubed Health

36.440 Viewpoint adaptation reveals potential representational differences between 2D images and 3D objects

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Zhiqing Deng¹ (zhiqingdeng@m.scnu.edu.cn), Jie Gao¹, Anthony Li², Yan Chen¹, Boyu Gao³, Jody Culham⁴, Juan
Chen\textsuperscript{1,6}, Center for the Study of Applied Psychology, Guangdong Key Laboratory of Mental Health and Cognitive Science, and the School of Psychology, South China Normal University, Guangzhou, Guangdong Province, China; \textsuperscript{2}School of Medicine, Queen's University, Kingston, ON, K7L 3J8, Canada; \textsuperscript{3}College of Information Science and Technology, Jinan University, Guangzhou, China; \textsuperscript{4}The Brain and Mind Institute, The University of Western Ontario, London, ON, N6A 5B7 Canada; \textsuperscript{5}Department of Psychology, The University of Western Ontario, London, ON, N6A 5C2, Canada; \textsuperscript{6}Key Laboratory of Brain, Cognition and Education Sciences (South China Normal University), Ministry of Education

\textbf{36.441 The color/shading effect and oriented double opponent neurons: a noise analysis}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Evan Gerritz\textsuperscript{1} (evgerritz@gmail.com), Luciano Dyballa\textsuperscript{1}, Steven W. Zucker\textsuperscript{1}; \textsuperscript{1}Yale University

\textbf{Perception and Action: Navigation and flow}

\textbf{36.442 Visual Influence Networks in Walking Crowds}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Kei Yoshida\textsuperscript{1} (kei_yoshida@brown.edu), William H. Warren\textsuperscript{1}; \textsuperscript{1}Brown University

\textbf{36.443 Social affordances in human wayfinding}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Serena DeStefani\textsuperscript{1} (sd911@rutgers.edu), Karin Stromswold\textsuperscript{1}, Jacob Feldman\textsuperscript{1}; \textsuperscript{1}Rutgers University

\textbf{36.444 Steering through multiple waypoints without model-based trajectory planning}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Brett Fajen\textsuperscript{1} (fajenb@rpi.edu), A.J. Jansen\textsuperscript{1}; \textsuperscript{1}Rensselaer Polytechnic Institute

\textbf{36.445 Visual control of steering through multiple waypoints}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

AJ Jansen\textsuperscript{1} (jansea@rpi.edu), Nathaniel Powell\textsuperscript{2}, Brett Fajen\textsuperscript{1}; \textsuperscript{1}Rensselaer Polytechnic Institute, \textsuperscript{2}University of Texas at Austin

\textbf{36.446 Effect of viewing a stretched top-down map on spatial learning of a virtual environment by navigation}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Jie Ding\textsuperscript{1,2} (jieding11@gmail.com), Jeffrey A Saunders\textsuperscript{1}; \textsuperscript{1}The University of Hong Kong, \textsuperscript{2}The Education University of Hong Kong

\textbf{36.447 Qualitative Inconsistency Detection as a novel method for identifying the information used in locomotor interception}

\textit{Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion}

Reinoud J. Bootsma\textsuperscript{1}, Remy Casanova\textsuperscript{1}, Albertha A. M. van Opstal\textsuperscript{1}, Frank T. J. M. Zaal\textsuperscript{2}; \textsuperscript{1}Aix Marseille University, CNRS, France, \textsuperscript{2}University Medical Center Groningen, The Netherlands
36.448 The Impact of High-Contrast Linear Floor Patterns on Human Gait Kinematics  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Greig Dickson¹ (greig.dickson@bristol.ac.uk), Evgeniya Anisimova¹, Ute Leonards¹; ¹University of Bristol

36.449 Vection does not facilitate flow parsing  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Hongyi Guo¹ (hguo06@yorku.ca), Robert Allison¹; ¹Centre for Vision Research, York University

36.450 Neural efficiency in an aviation task with different levels of difficulty: Assessing different biometrics during a performance task  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Mohammad Javad Darvishi Bayazi¹,²,³, Andrew Law⁴, Sergio Mejia Romero¹, Sion Jennings⁴, Irina Rish²,³, Jocelyn Faubert¹,³; ¹Faubert Lab, Université de Montréal, Montréal, QC, Canada, ²Mila - Québec AI Institute, Montréal, QC, Canada, ³Université de Montréal, Montreal, QC, Canada, ⁴National Research Council Canada (NRC), Ottawa, OT, Canada

Face Perception: Insights from artificial neural networks

36.451 In Silico Approach for Understanding the Associations Between Vision and Emotions Underlying the Uncanny Valley Effect  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Takuya Igaue¹,² (t-igaue@aist.go.jp), Ryusuke Hayashi²; ¹The University of Tokyo, ²National Institute of Advanced Industrial Science and Technology

36.452 An Enhanced Dataset for Inferential Emotion Tracking in Humans and Machines  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Ethan Shedd¹ (shedd@berkeley.edu), Zhihang Ren¹, Jefferson Ortega¹, Ananya Sharma¹, Wish Wang¹, Stella Yu¹,², David Whitney¹; ¹University of California, Berkeley, ²University of Michigan, Ann Arbor

36.454 Deep convolutional neural networks are sensitive to configural properties of faces  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Virginia Strehle¹ (ves180000@utdallas.edu), Natalie Bendiksen¹, Alice O'Toole¹; ¹The University of Texas at Dallas

36.455 Recognizing people by body shape using deep networks of images and words  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Blake Myers¹ (blake.myers@utdallas.edu), Matthew Hill¹, Veda Gandi¹, Thomas Metz¹, Lucas Jaggernauth¹, Carlos Castillo², Alice O'Toole¹; ¹University of Texas at Dallas, ²Johns Hopkins University

36.456 Comparison of human observers and a deep learning model in recognition of static robot facial expressions  
Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion  
Dongsheng Yang¹,² (yang.dongsheng.46w@st.kyoto-u.ac.jp), Wataru Sato¹,², Takashi Minato², Shushi Namba²,
Comparing Humans and Deep Neural Networks on face recognition under various distance and rotation viewing conditions

Artifact magnification on deepfake videos increases human detection and subjective confidence

Videos, Deepfakes, and Dynamic Morphs: Neural and Perceptual Differences for Real and Artificial Faces.

Perceptual Organization: Shape, figure/ground, occlusion

Spatial structure aids shape perception and feature extraction

Probing perceptual mechanism of shape-contingent color after-images via interconnected recursive filters

Global Factors in Perceptual Shape Completion

Processing of coarse and fine shape features by humans and deep networks: A shape frequency analysis
36.464 Up is best
*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*
Stuart Anstis¹ (sanstis@ucsd.edu), Patrick Cavanagh; ¹UCSD, ²York University

36.465 Color-Object Semantics Affects Object Detection
*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*
Karen B. Schloss¹ (kschloss@wisc.edu), Carter M. Thompson², Jingming Xue², Mary A. Peterson²; ¹University of Wisconsin-Madison, ²University of Arizona

36.466 Relative luminance of ambiguous figure/ground regions impacts the ability of the watercolor illusion to bias figure assignment
*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*
Patsy Folds¹ (pefold8941@ung.edu), Courtney Nutt², Tanner Lumpkin³, Ralph Hale⁴; ¹University of North Georgia

36.467 Occlusion impairs numerical discrimination of objects in real-world scenes
*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*
Lauren Aulet¹ (laulet@andrew.cmu.edu), Evren Konuk¹, Jessica Cantlon¹; ¹Carnegie Mellon University

36.468 A systematic bias in the perceived location of a triangle's occluded vertex.
*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*
Tess L. White¹ (tessw@unr.edu), Chidera J. Abiakam¹, Madalyn C. Sawatzky¹, Drew G. Asborno¹, Lars Strother¹, Gideon Paul Caplovitz¹; ¹University of Nevada, Reno

Monday Morning Posters in Banyan Breezeway

Object Recognition: Models

43.301 Visual Analogy Between Object Parts
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Hongjing Lu¹ (hongjing@ucla.edu), Shuhao Fu¹; ¹University of California, Los Angeles

43.302 A study of humans and convolutional neural networks on how to recognize blurry objects at the threshold of visibility
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Hojin Jang¹ (jangh@mit.edu), Frank Tong²; ¹Department of Brain and Cognitive Sciences, MIT, ²Department of Psychology and Vanderbilt Vision Research Center, Vanderbilt University

43.303 Evaluating machine comprehension of sketch meaning at different levels of abstraction
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Xuanchen Lu¹ (xul076@ucsd.edu), Kushin Mukherjee², Rio Aguina-Kang¹, Holly Huey¹, Judith E. Fan¹; ¹University of California, San Diego, ²University of Wisconsin-Madison

43.304 Face-deprived networks show distributed but not clustered face-selective
43.305 Feature Visualizations do not sufficiently explain hidden units of Artificial Neural Networks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Thomas Klein1,2 (t.klein@uni-tuebingen.de), Wieland Brendel2, Felix Wichmann1; 1Neural Information Processing Group, University of Tübingen, 2Max Planck Institute for Intelligent Systems, Tübingen

43.306 Is it always computationally advantageous to use segregated pathways to process different visual stimulus attributes separately?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Zhixian Han1 (han594@purdue.edu), Anne Sereno1; 1Purdue University

43.307 Language Models of Visual Cortex: Where do they work? And why do they work so well where they do?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Colin Conwell1 (conwell@g.harvard.edu), Jacob S. Prince1, George A. Alvarez1, Talia Konkle1; 1Harvard University

43.308 Phase-Dependent Asymmetry of Pattern Masking in Natural Images Explained by Intrinsic Position Uncertainty

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Anqi Zhang1,2 (anqizhang@utexas.edu), Eric Seemiller3, Wilson Geisler1; 1Center for Perceptual Systems, University of Texas at Austin, 2Department of Physics, University of Texas at Austin, 3711th Human Performance Wing, Air Force Research Laboratory

43.309 Statistical inference on representational geometries

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Heiko Schütt1,2 (heiko.schuett@nyu.edu), Alexander D. Kipnis3, Jörn Diedrichsen4, Nikolaus Kriegeskorte2; 1New York University, 2Zuckerman Institute, Columbia University, 3Max Planck Institute for Biological Cybernetics, 4Western University

43.310 The role of scene context in object recognition by humans and convolutional neural networks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Haley G. Frey1, Hojin Jang1, Hui-Yuan Miao1, Frank Tong1; 1Vanderbilt University

43.311 Uncovering high-level visual cortex preferences by training convolutional neural networks on large neuroimaging data

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

K. Seeliger1, R. Leipe1,2, J. Roth1, M. N. Hebart1,3; 1Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 2Leipzig University, Germany, 3Department of Medicine, Justus Liebig University Giessen, Germany
**43.312 Visual angle and image context alter the alignment between deep convolutional neural networks and the macaque ventral stream**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sara Djambazovska¹,² (sara_djambazovska@hms.harvard.edu), Gabriel Kreiman², Kohitij Kar³; ¹Swiss Federal Institute of Technology, Lausanne (EPFL), ²Harvard Medical School, ³York University

**43.313 Predicting human camouflage detection with a principled computational model**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Abhranil Das¹ (abhranil.das@utexas.edu), Wilson S Geisler¹; ¹University of Texas at Austin

**43.314 A Generalized Framework for Optimizing and Informing the Implementation of QUEST**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ethan Duwell¹ (eduwell@mcw.edu), Gennadiy Gurariy¹, Adam Greenberg¹; ¹Medical College of Wisconsin

**43.315 Top-down and within-layer recurrent connections in artificial networks are needed to solve challenging visual tasks**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Andrea Ivan Costantino¹ (andreaivan.costantino@kuleuven.be), Hans Op de Beeck¹; ¹KU Leuven

**Scene Perception: Spatiotemporal factors**

**43.316 Comparing explicit and implicit ensemble perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shaul Hochstein¹ (shaulhochstein@gmail.com), Noam Khayat¹, Marina Pavlovskaya¹; ¹ELSC Safra Center for Brain Research & Life Sciences Institute, Hebrew University, Jerusalem

**43.317 The influence of scene context on individual and ensemble encoding of object positions**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yanina E. Tena Garcia¹ (yanina.e.tena-garcia@psychol.uni-giessen.de), Bianca R. Baltaretu¹, Katja Fiehler¹; ¹Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

**43.318 Scene memory for intrinsic and extrinsic boundaries**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Carmela Gottesman¹ (cvgottesman@sc.edu); ¹University of South Carolina Salkehathie

**43.319 How to build a scene: Relational representations are constructed in a canonical order**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zekun Sun¹ (zekun@jhu.edu), Chaz Firestone¹, Alon Hafri²; ¹Johns Hopkins University, ²University of Delaware

**43.320 Where was the moose? The time course of dynamic road scene perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Benjamin Wolfe¹ (benjamin.wolfe@utoronto.ca), Cristeidy Gonzalez¹, Anna Kosovicheva¹; ¹University of Toronto Mississauga

**43.321 Neural dynamics of natural scene processing across cortical areas as revealed by EEG decoding**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Taiki Orima¹,², Isamu Motoyoshi¹; ¹The University of Tokyo, ²Japan Society for the Promotion of Science

**43.323 Central Vision Loss Worsens Scene Understanding and Increases Eye Movement Variability**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Byron Johnson¹ (byron.johnson@ucsb.edu), Puneeth N. Chakravarthula¹, Shravan Murlidaran¹, Ansh Soni¹, Michael Beyeler¹, Miguel P. Eckstein¹; ¹University of California, Santa Barbara

**43.324 ‘Visual verbs’: Dynamic event types (such as twisting vs. rotating) are extracted quickly and spontaneously during visual perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Huichao Ji¹ (huichao.ji@yale.edu), Brian Scholl¹; ¹Yale University

**43.325 Spatiotemporal continuity of background image sequence influences the criterion of object change detection**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jieun Cho¹ (jieuncho@yonsei.ac.kr), Sang Chul Chong¹,²; ¹Graduate Program in Cognitive Science, Yonsei University, ²Department of Psychology, Yonsei University

**43.326 Numerosity Estimation in Accumulated Spatial Arrays: Does Anchoring Limit Accuracy?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Frank Durgin¹ (fdurgin1@swarthmore.edu), John Grey Crosby¹; ¹Swarthmore College

**Attention: Temporal, templates, memory**

**43.328 Former target representations reach forward in time and proactively interfere with attentional guidance**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zengbo Xie¹ (zengbo.xie@vanderbilt.edu), Geoffrey Woodman²; ¹Vanderbilt University

**43.329 Perceptual noise disrupts flanker suppression: Evidence from a novel type of noise in the colour domain and Bayesian modelling**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dietmar Heinke¹ (d.g.heinke@bham.ac.uk), Jordan Deakin¹; ¹University of Birmingham

**43.330 The Role of Object Stability in the Allocation of Attention**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Ece Yucer¹ (ece.yucer@mail.utoronto.ca), Jay Pratt¹; ¹University of Toronto

**43.331 Attentional control settings determine not only what captures attention, but where attention goes once captured**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Samantha Joubren¹ (sjoubren@uoguelph.ca), Anna Katzatchkova¹, Fatima Abboud², Naseem Al-Aidroos¹; ¹University of Guelph, ²McGill University

**43.332 Visual versus verbal attentional templates guiding visual search**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anna Grubert¹ (anna.k.grubert@durham.ac.uk), Daisy McGonigal¹, Mikel Jimenez¹; ¹Durham University

**43.333 Enhanced representation of visual stimuli near a suppressed distractor**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xiaojin Ma¹ (xiaojinma@wustl.edu), Richard A. Abrams¹; ¹Washington University in St. Louis

**43.334 Assessing the Role of Long-Term Memory and Visual Working-Memory Attentional Templates in Guiding Attentional Capture and Decision Making**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jessica Kespe¹, Niyatee Narkar³, Naseem Al-Aidroos²; ¹University of Guelph

**43.335 Meta-analytic Evidence for Working Memory-Driven Visual Attention Capture**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tianye Ma¹ (tma039@ucr.edu), Weiwei Zhang; ¹University of California, Riverside

### Attention: Features

**43.336 A top-down attentional network selects vs. reduces the same features for different visual categorizations of the same scenes**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yaocong Duan¹ (y.duan.1@research.gla.ac.uk), Robin Ince¹, Joachim Gross², Philippe Schyns¹; ¹School of Psychology and Neuroscience, University of Glasgow, ²Institute for Biomagnetism and Biosignalanalysis, University of Muenster, Germany

**43.337 Are attentional templates based on physical feature values or perceptual interpretations?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Vladislav Khvostov¹,², Árni Gunnar Ásgeirsson³, Árni Kristjánsson¹; ¹Icelandic Vision Lab, University of Iceland, ²HSE University, Russia, ³University of Akureyri, Iceland

**43.338 Feature-based attention modulates population spatial frequency tuning**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Luis D. Ramirez¹ (luisdr@bu.edu), Feiyi Wang², Sam Ling¹; ¹Boston University, ²Tufts University

**43.339 Feature-based suppression and salience guide attention simultaneously.**
43.340 Highly efficient attentional selection of colors despite high target-distractor similarity
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Aniruddha Ramgir¹ (aniruddha.ramgir@gmail.com), Dominique Lamy¹; ¹Tel Aviv University

43.342 Preparatory attention to visual features primarily relies on non-sensory representation
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Angus Chapman¹, Viola Störmer²; ¹University of California San Diego, ²Dartmouth College

43.343 The interaction between color categories and attention
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Taosheng Liu¹, Yilin Chen², Mengyuan Gong²; ¹Michigan State University, ²Zhejiang University

43.344 The effects of visual dimensions on attentional dynamics
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Aimee Martin¹, Karl Gegenfurtner¹; ¹University of Giessen

43.345 Perceived distance modulates attention allocation
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Rachel Eddings¹ (redding2@vols.utk.edu), Aaron Buss¹; ¹University of Tennessee, Knoxville

43.346 Lower Search Efficiency for Conjunction vs. Feature Search for Convolutional Neural Networks
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ansh K Soni¹ (asoni@ucsb.edu), Sudhanshu Srivastava¹, Miguel P Eckstein¹; ¹University of California - Santa Barbara

43.347 The greener, the slower: Distraction from Relational Templates in Visual Foraging
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jan Tünnermann¹ (jan.tuennermann@uni-marburg.de), Inga Grössle¹, Anna Schubo¹; ¹Phillips University Marburg

43.348 Individual differences in image preferences: a personalized image enhancement method
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Sarit F. A. Szpiro¹,² (sarit.szpiro@edu.haifa.ac.il), Amit Yashar¹,²; ¹Special Education Department, University of...
Haifa, The Edmond J. Safra Brain Research Center, University of Haifa

43.349 The prototype effect in aesthetic preferences for visual scenes: A computational account
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Yi-Chia Chen¹ (yichiachen@g.ucla.edu), Shuhao Fu¹, Derek Feng², Moriah Taylor¹, Jeffrey Chang¹, Xiaoyang Chi¹, Hongjing Lu¹; ¹University of California, Los Angeles, ²Yale University

43.350 Aesthetic value modulates gaze patterns on proto-object locations
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Delaram Farzanfar¹ (delaram.farzanfar@mail.utoronto.ca), Morteza Rezanejad¹, Dirk B. Walther¹; ¹Department of Psychology, University of Toronto

43.351 Attention improves after seeing images of nature that are not too captivating
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Claudia Damiano¹ (claudia.damiano@kuleuven.be), Johan Wagemans¹; ¹KU Leuven

43.352 Perceiving style at different levels of information
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Yuguang Zhao¹ (y.zhao-5@tudelft.nl), Huib de Ridder¹, Jeroen Stumpel², Maarten Wijntjes³; ¹Delft University of Technology, ²Utrecht University

43.353 Deep network representation of art style similarity judgments
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Anna Bruns¹ (anna.bruns@nyu.edu), Ming Gao¹, Abhishek Dendukuri¹, Jenna Eubank¹; ¹New York University

43.354 The effects of quantity, order, and spatial proximity of elements on subjective complexity judgment
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Minseong Jin¹ (minseongjin@korea.ac.kr), Jiwon Song¹, Chai-Youn Kim¹; ¹School of Psychology, Korea University, Seoul, Korea

43.355 The relationship between image statistics and aesthetic preference for art and natural scenes
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Alex Swartz¹ (a.swartz@sussex.ac.uk), Martina Guido¹, Alice Skelton¹, Jenny Bosten¹, Anna Franklin¹, John Maule¹; ¹University of Sussex

43.356 The Disputed Quartet: Embracing individuality in beauty judgment
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Maria Pombo¹, Denis Pelli¹; ¹New York University

Undergraduate Just-In-Time 2

43.357 Visual working memory retrieval as an accumulation-to-bound decision
process: evidence from the P3b
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Luke Atack¹, Stephen Emrich¹; ¹Brock University

43.358 Brain-wide functional connectivity of single face patch neurons during rest
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Rebecca Bhik-Ghanie¹ (rebecca.bhikghanie@nih.gov), Daniel Zaldivar¹, David Leopold¹; ¹SCNI, Lab of Neuropsychology, NIMH, NIH

43.359 Manipulating uncertainty in value-driven attentional capture
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Nicole Massa¹, Nick Crotty¹, Ifat Levy², Michael Grubb¹,²; ¹Trinity College, ²Yale School of Medicine

43.360 Familiarity and Scene Understanding
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Bridget Meighan¹, Elissa Aminoff¹; ¹Fordham University

43.361 Effects of covert visual spatial attention in multi-pseudo-letter processing.
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Katelyn Osuna¹ (kosuna@stanford.edu), Jason Yeatman¹, Maha Ramamurthy¹; ¹Division of Developmental Behavioral-Pediatrics, School of Medicine & Graduate School of Education, Stanford University.

43.362 Reflection Rumination increases Eye Saccade Curvature towards distractors in a Looking Task
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Isaias Perez¹, Bryan George¹, Cozy DeRosa¹, Ashley Latibeaudiere¹, Dr. Max Owens¹; ¹University of South Florida

43.363 Eye Movement Analysis of Upright vs Inverted Expressions
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Angeline Yang¹, Susana Chung¹; ¹UC Berkeley

43.364 Characteristics of fixational eye movements in individuals with ADHD
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kathlyn Bako¹ (katbako@berkeley.edu), Matthew Anderson¹, Susana Chung¹; ¹University of California, Berkeley

43.365 Symmetry Benefits Working Memory Representations of Object Orientation
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Shaya Samet¹, Yara Iskandar¹, Erez Freud¹, Peter J Kohler¹; ¹York University

43.366 Evaluating developmental shape selectivity from simultaneous multi-unit recordings along the ventral visual pathway
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
A. Ezra Sutter¹, Gerick M. Lee², Timothy D. Oleskiw²,³, Najib B. Majaj², Lynne Kiorpes², J. Anthony Movshon²; ¹Drew University, ²Center for Neural Science, New York University, ³Center for Computational Neuroscience,
Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

**43.367** Are the Effects of Familiarity with the Size of a Novel Object on the Perception of Distance the Result of an Associative or Trigonometric Process?
Emily Martin, Yunlong Zhang, Sahana Lawrence; Arizona State University

**43.368** Differences in preferred retinal loci of fixation in monocular versus binocular vision

Maximilian Freiberg, Aleksandr Gutnikov, Christian Meltendorf, Stephan Reiß, Ralph Krüger, Wolf M. Harmening; University Eye Clinic Bonn, Berlin University of Applied Sciences and Technology

---

**Monday Morning Posters in Pavilion**

**Eye Movements: Individual differences, novel measurement**

**43.401** No evidence for a relation between individual differences in the central scene-viewing bias and head movement propensity
Patricia R. Mueller, Sabine Grimm, Wolfgang Einhäuser; Chemnitz University of Technology

**43.402** Arousal levels modulates saccadic main sequence and stationary gaze entropy in partially sleep-deprived drivers
Carolina Diaz-Piedra, Francesco Angioi, Marcelo A. C. Fernandes, Christophe Prat, Jaka Sodnik, Leandro L. Di Stasi; University of Granada, Arizona State University, Federal University of Rio Grande do Norte, Commissariat à l'énergie atomique et aux énergies alternatives, University of Ljubljana, Joint Centre University of Granada - Spanish Army Training and Doctrine Command

**43.403** Speed of Information Processing in Infants and Adults: Age Differences in Saccadic Reaction Time Sensitivity
Scott Adler; York University

**43.404** Spatial predictability modulates oculomotor deficits in low persistence displays
Clara Kuper, Xiuyun Wu, T. Scott Murdison; Realty Labs, Meta Platforms Inc., Department of Psychology, Humboldt-Universität zu Berlin, Germany

**43.405** Neuroiconica - Collaborative cloud tool for online analytics of eye tracking data
Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

**Evgenii Shelepin** (xensey@gmail.com); 1Neuroiconica, 2Pavlov Institute of Physiology

#### 43.406 Assessing the accuracy of eye-tracking through passive filter and active shutter-glasses.

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sophie Kenny (skenny@vpixx.com), Jonathan Tong, Amanda Estephan; 1VPixx, Canada

#### 43.407 3D-Printable Non-invasive Head Immobilization System for Non-Human Primates

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Tyler Swedan (tyler.swedan@nih.gov), Elia Shahbazi, Timothy Ma, Rosa Lafer-Sousa, Reza Azadi, Amy Ryan, Drew Nguyen, Arash Afraz; 1NIH/NIMH, 2New York University

#### 43.408 Investigation of camera-free eye tracking glasses compared to a video-based system

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Claudia Martin Calderon (ca6marti@uwaterloo.ca), Abdullah Zafar, Anne Marie Yeboah, Kristine Dalton, Elizabeth Irving, Ewa Niechwiej-Szwebo; 1University Of Waterloo, Faculty of Health, 2University Of Waterloo, School of Optometry & Vision Science

#### 43.409 Individual differences in gaze behavior: Comparing high-level and sensory contributions

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Dyllan Simpson (dyllan.simpson@mail.utoronto.ca), Benjamin Wolfe, Anna Kosovicheva; 1University of Toronto Mississauga

#### 43.410 vrGazeCore: an open-source package for virtual reality eye-tracking analysis

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Thomas L. Botch (thomas.l.botch@dartmouth.edu), Amanda J. Haskins, Deepasri Prasad, Jeff Mentch, Caroline E. Robertson; 1Dartmouth College, 2Massachusetts Institute of Technology

#### 43.411 Directional effects on saccadic sequence and post-saccadic oscillations

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Gao Mingjie (18640729509@163.com), Wang Ailing, Zhu Weina, Jan Drewes; 1Institute of Brain and Psychological Sciences, Sichuan Normal University, Chengdu, China, 2School of Information Science, Yunnan University, Kunming, China

#### 43.412 Effect of Lateral Saccade Direction on Saccade Profile and Post-Saccadic Overshoot in Young and Senior People

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Wang Ailing (joylin12@163.com), Gao Mingjie, Zhu Weina, Jan Drewes; 1Institute of Brain and Psychological Sciences, Sichuan Normal University, Chengdu, China, 2School of Information Science, Yunnan University, Kunming, China
Visual Working Memory: Serial dependence

43.413 Contrasting the roles of object-based attention, spatial distance, and hemifield in serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Christian Houborg\(^1\) (christianhouborg@hotmail.com), Árni Kristjánson\(^1\), David Pascucci\(^2\); \(^1\)Vision Sciences Laboratory, School of Health Sciences, University of Iceland, Reykjavik, Iceland., \(^2\)Laboratory of Psychophysics, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.

43.415 Previous and current action targets held in working memory determine repulsive and attractive serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Cora Fischer\(^1\) (cora.fischer@med.uni-frankfurt.de), Sebastian Fohs\(^1\), Jochen Kaiser\(^1\), Christoph Bledowski\(^1\); \(^1\)Institute of Medical Psychology, Goethe University Frankfurt

43.417 The state of working memory maintenance alters the direction of serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Kuo-Wei Chen\(^1\) (kchen172@asu.edu), Brian Carlson\(^1\), Gi-Yeul Bae\(^1\); \(^1\)Arizona State University

43.418 Temporal dynamics of the visual representation of orientation ensemble perception

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Ryuto Yashiro\(^1\) (ryuto-yashiro@g.ecc.u-tokyo.ac.jp), Masataka Sawayama\(^1\), Kaoru Amano\(^1\); \(^1\)The University of Tokyo

43.419 The current top-down attentional set is shaped by previous selection episodes

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Changrun Huang\(^1,2\) (c.huang@vu.nl), Dirk van Moorselaar\(^1,2\), Mieke Donk\(^1,2\), Jan Theeuwes\(^1,2,3\); \(^1\)Vrije Universiteit Amsterdam, Amsterdam, the Netherlands, \(^2\)Institute Brain and Behavior (iBBA), Amsterdam, the Netherlands, \(^3\)William James Center for Research, ISPA-Instituto Universitario, Lisbon, Portugal

43.420 Positive serial dependence effects in rating food images for appeal and calories

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

David Alais\(^1\) (david.alais@sydney.edu.au), Thomas Carlson\(^1\); \(^1\)University of Sydney

43.421 Costs of manipulating representations of approximate visual magnitudes stored in visual working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Chen Cheng\(^1\) (chencheng.psy@gmail.com), Xuechen Ding\(^2\), Melissa Kibbe\(^3\); \(^1\)The Hong Kong University of Science and Technology, \(^2\)Shanghai Normal University, \(^3\)Boston University

Visual Working Memory: Neural mechanisms
43.422 Investigating the effects of perceptual complexity versus conceptual meaning on the neural correlates of visual working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Alyssa Thibeault¹ (wy20rd@brocku.ca), Keynen Lynett¹, Chae Bush¹, Christopher Keightley¹, Bobby Stojanoski², Stephen M. Emrich¹; ¹Brock University, ²Ontario Tech University

43.423 Intuitive physics guides visual tracking and working memory: The dynamics of neural processing in expectation violation

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Halely Balaban¹,2 (halely@mit.edu), Kevin Smith¹, Joshua Tenenbaum¹, Tomer Ullman²; ¹Massachusetts Institute of Technology (MIT), ²Harvard

43.424 Neurophysiological mechanisms of action-modulated prioritization in visual working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Caterina Trentin¹ (c.trentin@vu.nl), Christian N.L. Olivers¹, Heleen A. Slagter¹; ¹Vrije Universiteit

43.425 Observability of Visual Working Memory Brain Circuitry With Functional Near-Infrared Spectroscopy

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

David Beeler¹ (dbeeler@bu.edu), Yuanyuan Gao¹, Vaibhav Tripathi¹, Alice Cronin-Golomb¹, Theresa Ellis¹, Swathi Kiran¹, Alexander von Lühmann¹,2, Meryem Yücel¹, David Boas¹, David Somers¹,1; ¹Boston University, ²Technische Universität Berlin

43.426 The interdependence of the memory reactivation of items and task rules

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Yagmur Damla Senturk¹ (yagmursenturk@sabanciuniv.edu), Nursima Ünver¹,2, Can Demircan¹, Tobias Egner³, Eren Günseli¹; ¹Sabanci University, ²University of Toronto, ³Duke University

43.427 Characterizing the spatial organization of population codes in macaque prefrontal cortex during visuospatial tasks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Jinkang (Derrick) Xiang¹ (jxiang27@uwo.ca), Megan Roussy¹, Benjamin Corrigan¹, Rogelio Luna¹, Maryam Mofrad¹, Lyle Muller¹, Julio Martinez-Trujillo¹, Marieke Mur¹; ¹The University of Western Ontario

43.428 Theta-gamma phase-amplitude coupling as a marker of cognitive deficits in schizophrenia

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Orestis Papaioannou¹, Molly Erickson¹; ¹University of Chicago

43.429 Dissociating the effects of degraded visual input on cognitive processes using EEG markers of selective attention and working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Sarah Sheldon¹ (s.sheldon@northeastern.edu), MiYoung Kwon¹; ¹Northeastern University
43.430 Visual representations shift from a retinal to a real-world reference frame during visual working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Maria V. Servetnik¹,⁴ (servetnikmaria@gmail.com), Nicolas Pollán Hauer², Michael J. Wolff¹, Chaipat Chunharas³, Rosanne L. Rademaker¹, ¹Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with the Max Planck Society, Frankfurt, Germany, ²Centre de Recerca Matemàtica, Campus de Bellaterra, Barcelona, Spain, ³Department of Medicine, King Chulalongkorn Memorial Hospital, Chulalongkorn University, Bangkok, Thailand, ⁴Department of Cognitive Neuroscience, Vrije Universiteit Amsterdam, The Netherlands

43.431 Sad and fearful face distractors do not consume working memory resources in depressed adults

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Chaoxiong Ye¹,²,³ (chaoxiong.c.ye@jyu.fi), Qianru Xu⁴, Xueqiao Li², Elisa Vuorioinen³, Qiang Liu¹, Piia Astikainen²; ¹Sichuan Normal University, Chengdu, China, ²University of Jyvaskyla, Jyvaskyla, Finland, ³Tampere University, Tampere, Finland, ⁴University of Oulu, Oulu, Finland

43.432 Shared neural representations of orientation and location information during working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Joana Pereira Seabra¹,² (joana.seabra@bccn-berlin.de), Vivien Chopurian¹,², Andreea-Maria Gui¹,², Alessandra S. Souza³,⁴, Thomas B. Christophel¹,²; ¹Humboldt University of Berlin, ²Bernstein Center for Computational Neuroscience Berlin, ³University of Porto, ⁴University of Zurich

43.433 Neural evidence for high-to-low level decoding in orientation working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Yan Yang¹,³ (yangy@ibp.ac.cn), Zhentao Zuo¹,²,³, Tiangang Zhou¹,²,³; ¹State Key Laboratory of Brain and Cognitive Science, Institute of Biophysics, Chinese academy of sciences, ²Hefei Comprehensive National Science Center, Institute of Artificial Intelligence, ³University of Chinese academy of sciences

43.434 Neural representations of orientation reflect the oblique effect during perception, and repulsion bias during working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Michael Wolff¹ (michael-josef.wolff@esi-frankfurt.de), Rosanne Rademaker; ¹Ernst Strüngmann Institute for Neuroscience in cooperation with the Max Planck Society

43.435 A matter of availability: Sharper tuning for memorized than for perceived stimulus features.

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Samson Chota¹ (samson.chota@googlemail.com), Surya Gayet¹, J. Leon Kenemans¹, Christian N.L. Olivers², Stefan Van der Stigchel¹; ¹Utrecht University, ²Vrije Universiteit Amsterdam

43.436 The spatial tuning of cortical responses during visual memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion
Robert Woodry¹, Clayton Curtis¹, Jonathan Winawer¹; ¹New York University

43.437 EEG Decoding Reveals Distinct Processes for Directing Spatial Attention and Encoding into Working Memory.

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Henry Jones¹ (henryjones@uchicago.edu), William Ngiam¹, Edward Awh¹; ¹University of Chicago

43.438 Oscillation Gates Efficacy of Optogenetically-Induced V4 Inputs to FEF

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Phillip Comeaux¹ (phillip.comeaux@utah.edu), Lauri Nurminen², Frederick Federer¹, Alessandra Angelucci¹, Behrad Noudoost¹; ¹University of Utah, ²University of Houston

43.439 Connectomic Investigation of the Frontal Eye Field and Inferior Frontal Junction

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Marco Bedini¹³ (marco.bedini@unitn.it), Emanuele Olivetti¹², Paolo Avesani¹², Daniel Baldauf¹; ¹University of Trento, ²Bruno Kessler Foundation, ³University of California, San Diego

43.440 Visual Cortical Functional Connectivity With Cerebellar Cortex Reveals Multiple, Fine-Scale Cortico-Cerebellar Networks for Vision

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Ryan Marshall¹ (ryanmars@bu.edu), Vaibhav Tripathi², David Somers³; ¹Boston University

Visual Working Memory: Space, features, objects

43.441 Color- and semantic-sharing bonuses in visual working memory: The deeper the processing, the greater the benefits for real-world objects

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Hanane Ramzaoui¹ (hanane.ramzaoui@univ-cotedazur.fr), Fabien Mathy², Candice C. Morey³; ¹Louisiana State University, ²Université Côte d’Azur, BCL, CNRS, ³Cardiff University

43.442 Flexibility between feature-based and object-based representations in working memory for reinforcement learning

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Kengo Shibata¹ (kengo.shibata@lincoln.ox.ac.uk), Verena Klar¹, Sooraj Mahesh¹, Masud Husain¹, Sanjay G Manohar¹; ¹University of Oxford

43.443 Meaningful objects are privileged in working memory: better incidental memory of recognizable relative to unrecognizable objects

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Yong Hoon Chung¹ (yong.hoon.chung.gr@dartmouth.edu), Joyce Tam², Brad Wyble², Viola Stoermer¹; ¹Dartmouth College, ²Penn State University

43.444 Probing the prioritization of multiple spatial locations held in working memory.

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion
Jordan Garrett\textsuperscript{1,2}, Daniel Thayer\textsuperscript{1,2}, Thomas Sprague\textsuperscript{1,2}, Barry Giesbrecht\textsuperscript{1,2}; \textsuperscript{1}University of California, Santa Barbara, \textsuperscript{2}Institute for Collaborative Biotechnologies

### 43.445 The Role of Low-Level Perceptual Similarities in the Visual Working Memory Mixed-Category Effect

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Reut Peled\textsuperscript{1} (reutgadot@gmail.com), Roy Luria\textsuperscript{1,2}; \textsuperscript{1}The school of Psychological Sciences, \textsuperscript{2}The Sagol School of Neuroscience

### 43.446 Remembering where, but not what: how spatial and object visual memory change across delays in recall

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Emma Megla\textsuperscript{1} (emmamegla22@gmail.com), Samuel R. Rosenthal\textsuperscript{1}, Wilma A. Bainbridge\textsuperscript{1}; \textsuperscript{1}University of Chicago

### 43.447 Caricaturing shapes in visual memory

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Subin Han\textsuperscript{1}, Zekun Sun\textsuperscript{2}, Chaz Firestone\textsuperscript{2}; \textsuperscript{1}University of Oregon, \textsuperscript{2}Johns Hopkins University

### 43.448 Faces in Working Memory Cause Racial Biases in Subsequent Trustworthiness Judgments

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sanika Paranjape\textsuperscript{1}, Sarah Shomstein\textsuperscript{1}, Dwight Kravitz\textsuperscript{1}; \textsuperscript{1}The George Washington University

### 43.449 Scene and object false memory in a photo-realistic paradigm

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Shaela Jalava\textsuperscript{1} (19stj@queensu.ca); \textsuperscript{1}Queen’s University

### 43.450 Microsaccade directions track spatial oculomotor-based rehearsal of non-spatial object features in visual working memory

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Eelke de Vries\textsuperscript{1} (evs236@vu.nl), Freek van Ede\textsuperscript{1}; \textsuperscript{1}Vrije Universiteit Amsterdam

### 43.451 Working memory and the source of color categories in macaques

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Daniel Garside\textsuperscript{1} (dannygarside@outlook.com), Hannah Selwyn\textsuperscript{1}, Neha Sriram\textsuperscript{1}, Alexis Green\textsuperscript{1}, Josh Fuller-Deets\textsuperscript{1}, Bevil Conway\textsuperscript{1}; \textsuperscript{1}National Eye Institute, National Institutes of Health

### 43.452 Effective Prioritization of Temporal Groups in Visual Working Memory

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Joyce Tam\textsuperscript{1} (joyce.m.y.tam@gmail.com), Brad Wyble\textsuperscript{1}; \textsuperscript{1}Penn State University

### 43.453 The effects of saccades on visual working memory representations

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Golnaz Forouzandehfar\textsuperscript{1} (gforouz@vols.utk.edu), Garrett Hensley\textsuperscript{1}, A. Caglar Tas\textsuperscript{1}; \textsuperscript{1}University of Tennessee,
43.454  When “Looking at Nothing” Imparts Something: Gaze Retro-cues Flexibly Direct Prioritization in Visual Working Memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Yingchao Zhang¹ (zhangych87@mail2.sysu.edu.cn), Shujuan Ye¹, Wei Chen¹, Xiaowei Ding¹; ¹Department of Psychology, Guangdong Provincial Key Laboratory of Social Cognitive Neuroscience and Mental Health, Sun Yat-sen University, Guangzhou, People's Republic of China

43.455  The Role of Report History in Attribute Amnesia

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Niya Yan¹ (yanniya@tamu.edu), Brian Anderson; ¹Texas A&M University

43.456  Visual guessing relies on metacognitive reasoning

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Caroline Myers¹ (cmyers60@jhu.edu), Chaz Firestone¹, Justin Halberda¹; ¹Johns Hopkins University

43.457  Introducing ART: a new method of testing auditory memory with circular reproduction tasks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Daryl Fougnie¹ (darylfougnie@gmail.com), Aytac Karabay¹, Rob Nijenkamp², Anastasios Sarampalis³; ¹Department of Psychology, New York University Abu Dhabi, ²Center for Information Technology, University of Groningen, ³Department of Psychology, University of Groningen

43.458  What memories are formed by dynamic ‘visual routines’?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Kimberly W. Wong¹ (kimberly.wong@yale.edu), Brian Scholl¹; ¹Yale University

Multisensory Processing: Audio-visual, visuo-vestibular

43.459  The impact of gaze behavior on attentional disruptions to multisensory speech perception

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Leslie Kwakye¹ (kwakye@oberlin.edu), Arohi Dandawate¹, Ankit Barana¹, Sarah Liberatore¹, Victoria Fisher¹, Gabriel Hosein¹, Andrea Orozco¹; ¹Oberlin College

43.460  Comparing the consistency and determinants of visual and auditory memorability

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Cambria Revsine¹ (crevsine@uchicago.edu), Wilma A. Bainbridge; ¹University of Chicago

43.461  Audiovisual multisensory Event Related Potentials using the McGurk effect as a stimulation paradigm

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion
43.462 The Audiovisual Rabbit Illusion with Illusory Contours

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Jonathon Toft-Nielsen1,2,3 (jtoftnielsen@jorvec.com), Rafael Delgado1,2,3, Özcan Özdamar3; 1JÖRVEC Corp, 2Intelligent Hearing Systems Corp, 3University of Miami, Department of Biomedical Engineering

43.463 Making the Invisible Visible: Crossmodal Perception in Patients with Low Vision

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Matilda Cederblad1 (amcederb@caltech.edu), Armand R. Tanguay, Jr1,2, Shinsuke Shimojo1, Noelle R. B. Stiles1,3; 1California Institute of Technology, Division of Biology and Biological Engineering, 2University of Southern California, Departments of Electrical Engineering, Chemical Engineering and Materials Science, Biomedical Engineering, Ophthalmology, and Physics and Astronomy; Neuroscience Graduate Program, 3University of Southern California, Department of Ophthalmology

43.464 Can Implicit Auditory Motion Affect Visual Motion?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Lara Krisst1 (lkrisst@caltech.edu), Daw-An Wu1, Shinsuke Shimojo1; 1Caltech

43.465 Cross-modal feature based attention facilitates spatial transfer of perceptual learning in motion-domain figure-ground segregation

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Catherine A. Fromm1 (caf8588@rit.edu), Krystel R. Huxlin2,3, Gabriel J. Diaz1,3; 1Rochester Institute of Technology Center for Imaging Science, 2Flaum Eye Institute, University of Rochester Medical Center, 3University of Rochester Center for Visual Science

43.466 Multisensory Training Rehabilitates Hemianopia

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Benjamin Rowland1 (browland@wakehealth.edu), Barry Stein1; 1Wake Forest School of Medicine

43.467 The role of motor and auditory predictive cues in modulating neural processing of predicted visual stimuli

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Batel Buaron1, Roy Mukamel1; 1Tel Aviv University

43.468 Restricting the Distribution of Visual Attention Reduces Cybersickness

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Sai Ho Yip1, Jeffrey Saunders1; 1University of Hong Kong

43.469 Synchronicity of visual and vestibular signals modulates the causal inference in
**heading direction estimation**
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*
Liana Nafisa Safarti¹, Jongmin Moon¹, Oh-Sang Kwon¹; ¹Ulsan National Institute of Science and Technology

**43.470 Cue Combination in Visual and Vestibular Perception of Subjective Vertical**
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*
Chela Willey¹ (chela.willey@lmu.edu), Zili Liu²; ¹Loyola Marymount University, ²University of California, Los Angeles

**43.471 Rotational self-motion inhibits opposed visual motion**
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*
Kate Pickard¹ (kpico319@uni.sydney.edu.au), Sujin Kim¹, Robert Keys¹, Frans Verstraten¹, David Alais¹; ¹University of Sydney

**43.472 Causal inference modulates audiovisual temporal recalibration**
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*
Luhe Li¹ (l3981@nyu.edu), Fangfang Hong¹, Stephanie Badde², Michael S. Landy¹,³; ¹Department of Psychology, New York University, ²Department of Psychology, Tufts University, ³Center for Neural Science, New York University

**43.473 Training of visual attentional tracking modulates fronto-parietal activation and cross-modal GABAergic suppression**
*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*
Sebastian Frank¹ (cal.sebastian@googlemail.com), Markus Becker¹, Ekaterina-Rita Hegmann¹, Sonja Hartl¹, Ayumi Sarah Wandl¹, Mark Greenlee¹; ¹University of Regensburg

**Tuesday Morning Posters in Banyan Breezeway**

**Color, Light, and Materials: Neural mechanisms, models**

**53.301 Spatial and chromatic sensitivity of the primary visual cortex at the center-of-gaze**
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Felix Bartsch¹,² (felixbartsch@gmail.com), Ramon Bartolo Orozco², Jacob L Yates³, Cole Saborio¹, Daniel A. Butts¹, Bevil R. Conway²; ¹Program in Neuroscience and Cognitive Science, University of Maryland, ²Laboratory of Sensorimotor Research, National Eye Institute, National Institutes of Health, ³Herbert Wertheim School of Optometry and Vision Science, UC Berkeley,

**53.303 Orientation and color tuning in macaque V4**
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Dan-Qing Jiang¹, Xing-Nan Zhao¹, Sheng-Hui Zhang¹, Shi-Ming Tang¹,³, Cong Yu¹,²,³; ¹PKU-Tsinghua Center for Life Sciences, Peking University, Beijing 100181, China, ²School of Psychology and Cognitive Sciences, Peking University, Beijing 100181, China, ³School of Life Sciences, Peking University, Beijing 100181, China, ⁴IDG-
**53.304 Examining Hering’s theory for color responses in human V1 and V4**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

William Narhi-Martinez¹ (narhi-martinez.1@osu.edu), Zitong Lu¹, Angela M. Brown¹, Julie D. Golomb¹, Delwin T. Lindsey¹. ¹The Ohio State University

**53.305 Hue-dependence of contextual influences in color vision explained by a non-uniform population code**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Felix Schrader¹ (felix.schrader@campus.lmu.de), Thomas Wachtler¹; ¹Faculty of Biology, Ludwig-Maximilians-Universität München, Planegg-Martinsried, Germany.

**53.306 Predicting performance of diverse color vision genotypes of wild primates when foraging for food.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Max Snodderly¹ (dmsnodderly@gmail.com), Delisa Ramos¹, Andres Link², Anthony Di Fiore¹; ¹University of Texas at Austin, ²Universidad de los Andes-Colombia

**53.307 The Pattern electroretinogram as an indirect measure of central dopamine**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michael Wenger¹ (michael.j.wenger@ou.edu), Sarah Newbolds¹, Abigail Hays¹, Laili Boozary¹, Amy Barnett¹; ¹The University of Oklahoma

**Perceptual Organization: Segmentation, grouping, similarity**

**53.308 How object segmentation and perceptual grouping emerge in noisy variational autoencoders**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ben Lonnqvist¹ (ben.lonnqvist@epfl.ch), Zhengqing Wu¹, Michael H. Herzog¹; ¹EPFL (École Polytechnique Fédérale de Lausanne), Switzerland

**53.309 Center–Surround Inhibition in Expectation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ling Huang¹ (2018022906@m.scnu.edu.cn), xilin zhang²; ¹South China Normal University, ²School of Psychology

**53.310 Temporal limits of visual segmentation based on temporal asynchrony in luminance, color, motion direction, and their mixtures**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yen-Ju Chen¹ (ra51011daniel@gmail.com), Shin'ya Nishida¹,²; ¹Graduate School of Informatics, Kyoto University, Japan, ²Human Information Science Laboratory, NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan

**53.311 A Bayesian efficient observer model to explain attractive and repulsive temporal context effects when perceiving multistable dot lattices**
53.312 From dyads to crowds: Perceptual unity of group interactions.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jelena Ristic¹ (jelena.ristic@mcgill.ca), Clara Colombatto², Luowei Yan¹; ¹Department of Psychology McGill University, Montreal, Quebec, Canada, ²Department of Experimental Psychology, University College London, London, United Kingdom

53.313 Integration of Scrambled Halves of Chinese Characters
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Sherry Zhang¹ (sherryzh@usc.edu), Jack Morrison², Tailai Shen¹, Ernest Greene¹; ¹University of Southern California, ²Neuropsychology Foundation

53.314 Similarity Binds (and Bends) the Perception of Objects
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Gorkem Er¹ (gorkemerr@gmail.com), Tim Sweeney¹; ¹University of Denver

53.315 The effect of stimulus similarity in the Eriksen Flanker Task
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Danai Papadaki¹ (d.papadaki.19@abdn.ac.uk), Ramakrishna Chakravarthi¹, Søren K. Andersen¹,²; ¹School of Psychology, University of Aberdeen, UK, ²Department of Psychology, University of Southern Denmark, Denmark

Face Perception: Models

53.317 Erring on the side of caution: The influence of base rates, payoffs, and discriminability on face identification performance.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kristen A. Baker¹, Vincent J. Stabile², Catherine J. Mondloch¹; ¹Brock University, ²Oakland University

53.318 Extrafoveal faces modulate the dynamics of scene viewing
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Petra Borovska¹ (petra.borovska@psychol.uni-giessen.de), Benjamin de Haas¹; ¹Justus-Liebig-University Giessen

53.319 Intensive fMRI scanning and computational models can provide insight into the neural basis of developmental prosopagnosia
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Subha Nawer Pushpita³ (snpushpi@mit.edu), Elizabeth Mieczkowski¹, Bradley Duchaine⁴, N. Apurva RatanMurty¹,²,⁵; ¹Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, ²Center for Brains, Minds and Machines, Massachusetts Institute of Technology, ³Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, ⁴Department of Psychological and Brain Sciences, Dartmouth College, ⁵McGovern Institute for Brain Research, Massachusetts Institute of Technology

53.320 Prediction of preference judgments of face images using facial expressions and
EEG signals
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Satoshi Shioiri¹ (shioiri@riec.tohoku.ac.jp), Hikaru Nagata², Yoshiyuki Sato³, Yasuhiro Hatori⁴; ¹Tohoku University

53.321 Comparison of regression techniques to predict attractiveness from facial colour cues
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Yan Lu¹ (sdyl@leeds.ac.uk), Kaida Xiao¹,², Jie Yang³, Michael Pointer¹, Changjun Li², Sophie Wuerger⁴; ¹Leeds Institute of Textile and Colour, University of Leeds, ²University of Science and Technology Liaoning, ³Beijing Institute of Graphic Communication, ⁴University of Liverpool

53.322 Reconstructing facial motion across views using a multi-view face space.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Ryan Elson¹ (ryan.elson@nottingham.ac.uk), Denis Schluppeck¹, Alan Johnston¹; ¹University of Nottingham, UK

53.323 The Latent Decision Variable Underlying Confidence in Lineup Rejections
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Anne Yilmaz¹ (a1yilmaz@ucsd.edu), John Wixted¹; ¹University of California, San Diego

Face Perception: Neural mechanisms

53.324 The causal link between neural activity in inferotemporal cortex and free viewing eye movements
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Reza Azadi¹, Emily Lopez¹, Jessica Taubert²,³, Amanda Patterson², Arash Afraz¹; ¹Laboratory of Neuropsychology, National Institute of Mental Health, Bethesda, MD 20892, USA, ²Laboratory of Brain and Cognition, National Institute of Mental Health, Bethesda, MD 20892, USA, ³School of Psychology, The University of Queensland, Brisbane, QLD 4072, Australia

53.325 Is the processing of facial expression and head orientation dissociated in the human brain?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kyla Brannigan¹, Rohini Kumar¹, Hannah Wild¹, Shivani Goyal¹, Chris Baker¹, Jessica Taubert¹,², Shruti Japee¹; ¹Laboratory of Brain and Cognition, NIMH, NIH, ²University of Queensland

53.326 An electrophysiological investigation of facial race and identity decoding
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Moaz Shoura¹ (moaz.shoura@mail.utoronto.ca), Marco A. Sama¹, Arijit De¹, Sophie Zhou¹, Adrian Nestor¹; ¹University of Toronto Scarborough

53.327 Do visual mental imagery and exteroceptive perception rely on the same mechanisms?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Catherine Landry¹, Jasper JF van den Bosch², Ian Charest¹², Frédéric Gosselin¹, Vincent Taschereau-Dumouchel³⁴; ¹Cerebrum, Département de psychologie, Université de Montréal, ²Centre for Human Brain Health, School of Psychology, University of Birmingham, ³Département de psychiatrie et d'addictologie, Université de Montréal, ⁴Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal, Montréal

53.328 Early neural dehumanization of other race faces
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Justin Duncan¹ (justin.duncan@uqo.ca), Marie-Pier Plouffe-Demers¹², Émilie St-Pierre¹, Caroline Blais¹, Daniel Fiset¹; ¹Université du Québec en Outaouais, ²Université du Québec à Montréal

53.329 Interaction vs observation mode in the macaque visual cortex.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jessica Taubert¹², (jesstaubert@gmail.com), Shruti Japee², Amanda Patterson², Eliza Bliss-Moreau³; ¹The School of Psychology, The University of Queensland, QLD Australia, ²The Laboratory of Brain and Cognition, The National Institute of Mental Health, MD United States., ³Department of Psychology, The University of California, Davis, CA United States.

53.330 Low beta oscillations encode serial bias in face-gender discrimination
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Giacomo Ranieri¹, David C Burr¹, Maria Concetta Morrone²; ¹University of Florence, ²University of Pisa

53.331 Temporal dynamics of facial identity and expression processing from magnetoencephalography
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Rohini Kumar¹, Kyla Brannigan¹, Lina Teichmann¹, Chris Baker¹, Shruti Japee¹; ¹Laboratory of Brain and Cognition, NIMH, NIH

53.332 N250 amplitude is driven by the eyes in mid-to-high spatial frequencies
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Vicki Ledrou-Paquet¹ (ledv07@uqo.ca), Isabelle Charbonneau¹, Justin Duncan¹, Caroline Blais¹, Daniel Fiset¹; ¹Département de Psychoéducation et de Psychologie, Université du Québec en Outaouais

53.333 Parametric study of N170 sensitivity to diagnostic facial information during face identification
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Pierre-Louis Audette¹, Justin Duncan¹, Caroline Blais¹, Daniel Fiset¹; ¹Université du Québec en Outaouais

53.334 Unconscious perception of race shapes conscious race categorization in the brain
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Peter de Lissa¹ (peter.delissa@unifr.ch), Pauline Schaller¹, Viola Benedetti², Roberto Caldara¹; ¹University of Fribourg, ²University of Florence

53.335 Establishing functional homology across species using a common set of natural
53.336 3D Faces Evoke Stronger fMRI Activation than 2D Faces

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Eva Deligiannis¹,² (edeligia@uwo.ca), Marisa Donnelly², Carol Coricelli²,³, Karsten Babin², Kevin Stubbs²,⁴, Chelsea Ekstrand⁵, Laurie M. Wilcox⁶, Jody C. Culham¹,²; ¹Neuroscience Program, Western University, Canada, ²Brain and Mind at Western, Western University, Canada, ³German Institute of Human Nutrition, Potsdam-Rehbrücke, Germany, ⁴BrainsCAN, Western University, Canada, ⁵Canadian Centre for Behavioural Neuroscience, University of Lethbridge, Canada, ⁶Centre for Vision Research, York University

53.337 Revealing interpretable object dimensions from a high-throughput model of the fusiform face area

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Oliver Contier¹,², Shu Fujimori¹,³, Katja Seeliger¹, N Apurva Ratan Murty⁴,⁵, Martin Hebart¹,⁶; ¹Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, ²Max Planck School of Cognition, Max Planck Institute for Human Cognitive and Brain Sciences, ³Department of Mechanical and Intelligent Systems Engineering, Graduate School of Informatics and Engineering, The University of Electro-Communications, ⁴McGovern Institute for Brain Research, Massachusetts Institute of Technology, ⁵Department of Brain and Cognitive Science, Massachusetts Institute of Technology, ⁶Department of Medicine, Justus Liebig University

53.338 Bidirectional and parallel relationships in macaque face circuit revealed by fMRI and causal pharmacological inactivation

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Marlene Behrmann¹ (mbehrmann@pitt.edu), Galia Avidan², Janita N. Turchi³, Fadila Hadj-Bouziane⁴, Ning Liu⁵; ¹Department of Ophthalmology, University of Pittsburgh, and Carnegie Mellon University, Pittsburgh, Pennsylvania, 15213 USA, ²Department of Psychology, Ben-Gurion University of the Negev, Beer-Sheva 8410501, Israel, ³Laboratory of Neuropsychology, NIMH, NIH, Bethesda, Maryland, 20892, USA, ⁴INSERM, U1028, CNRS UMR5292, Lyon Neuroscience Research Center, ImpAct Team, Lyon, F-69000, France, ⁵State Key Laboratory of Brain and Cognitive Science, Institute of Biophysics, Chinese Academy of Sciences, Beijing, 100101, China

Scene Perception: Categorization, memory, cognition

53.339 Understanding Novel Real World Scenes: Gist, Elaboration, and Uniqueness

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Khoa Nguyen¹ (khoa2@usf.edu), Jong Han Lee¹, Reilly Orman¹, Lewis Evans¹, Eve Felicien Griffith¹, Thomas Sanocki¹; ¹University of South Florida

53.340 The role of object and spatial layout in scene integration

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Girim Yoon¹ (yoongr@yonsei.ac.kr), Soojin Park¹; ¹Department of Psychology, Yonsei University
Mainly the actions: Functional knowledge has a primary role in understanding real-world scenes portrayed by either fine or coarse visual information

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Krystian Ciesielski¹, Andrew Webb², Sara Spotorno³; ¹School of Psychology, Keele University, UK, ²Department of Computational Neuroscience, Max Planck Institute for Biological Cybernetics, Tübingen, Germany, ³Psychology Department, Durham University, UK

Complexity & Memorability have a Nonlinear Relationship when Remembering Scenes

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Cameron Kyle-Davidson¹ (ckd505@york.ac.uk), Karla K. Evans¹; ¹University of York

Memorable Scenes Attract Attention in Visual Search

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Yoshiyuki Ueda¹ (ueda.yoshiyuki.3e@kyoto-u.ac.jp), Qi Li², Yuichiro Kikuno³; ¹Kyoto University, ²Okayama University, ³Kyoto Notre Dame University

Musically induced microvalences in high-level visual processing of everyday scenes

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Elizabeth Galbo¹, Nathan Lincoln-DeCusatis¹, Elissa M. Aminoff¹; ¹Fordham University

Scene Perception: Neural mechanisms

Evidence that noise in human visual cortex encodes naturalistic visual representations

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Thomas Naselaris¹ (nase0005@umn.edu), Ghislain St-Yves¹, Kendick Kay¹; ¹University of Minnesota

An encoding model in shared functional space to reconstruct representations in multiple datasets

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Laurent Caplette¹ (laurent.caplette@yale.edu), Nicholas B. Turk-Browne¹; ¹Yale University

Orientation-dependent Modulation of Primary Visual Cortex to Near Surrounds Differs from Perceived Suppression

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Victor Pokorny¹ (vpokorny123@gmail.com), Scott Sponheim¹,², Cheryl Olman¹; ¹University of Minnesota, ²Minneapolis VA Medical Center

The Spatiotemporal Dynamics of Goal-driven Efficient-coding Revealed Through Brain-supervised Sparse Code Mapping

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Bruce Hansen¹ (bchansen@colgate.edu), Michelle Greene², David Field³; ¹Colgate University, ²Bates College,
**53.349 Combined representation of mid-level visual features in the scene-selective cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jisu Kang¹, Soojin Park¹; ¹Department of Psychology, Yonsei University

**53.350 Representation of event boundaries in the first-person navigation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Byunghoon Choi¹, Donald Shi Pui Li², Soojin Park¹; ¹Yonsei University, ²Johns Hopkins University

**53.351 Scene- and object-based tasks performed on the same complex stimuli activate different regions in parietal and lateral occipital cortex.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mark D. LesCroart¹, Hunter Howe¹; ¹University of Nevada, Reno

**53.352 What does it mean to be a scene: evidence from full-field fMRI**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jeongho Park¹ (jpark3@g.harvard.edu), Talia Konkle¹; ¹Harvard University

**53.353 Reconstructing mental images using Bubbles and electroencephalography**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Audrey Lamy-Proulx¹, Jasper van den Bosco², Catherine Landry¹, Peter Brotherwood¹, Vincent Taschereau-Dumouchel³, Frédéric Gosselin¹, Ian Charest¹-², ¹Cerebrum, Université de Montréal, ²Centre for Human Brain Health, University of Birmingham, ³Département de psychiatrie et d’addictologie, Université de Montréal, ⁴Centre de Recherche de l’Institut Universitaire en Santé Mentale de Montréal

**53.354 Dissociable mechanisms for integrating views into places in scene-selective cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Linfeng Tony Han¹ (hanlf@sas.upenn.edu), Russell A. Epstein¹; ¹University of Pennsylvania

**53.355 Revealing the locus and content of behaviorally relevant information about real-world scenes in human visual cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Johannes Singer¹ (johannes.singer@arcor.de), Agnessa Karapetian¹-²-³, Martin Hebart⁴, Radoslaw Cichy¹,²,³; ¹Department of Education and Psychology, Freie Universität Berlin, Germany, ²Charité – Universitätsmedizin Berlin, Einstein Center for Neurosciences Berlin, Berlin, Germany, ³Bernstein Centre for Computational Neuroscience Berlin, Berlin, Germany, ⁴Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ⁵Department of Medicine, Justus-Liebig-Universität Gießen, Germany

**53.356 Scene representations underlying categorization behaviour emerge 100 to 200 ms after stimulus onset**
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Agnessa Karapetian¹,²,³ (agnessakarapetian@gmail.com), Antoniya Boyanova¹, Muthukumar Pandaram³, Klaus Obermayer²,³,⁴,⁵, Tim C. Kietzmann⁶, Radoslaw M. Cichy¹,²,³,⁵; ¹Freie Universitaet Berlin, Germany, ²Einstein Center for Neurosciences Berlin, Germany, ³Bernstein Centre for Computational Neuroscience Berlin, Germany, ⁴Technische Universitaet Berlin, Germany, ⁵Berlin School of Mind and Brain, Germany, ⁶Universitaet Osnabrueck, Germany

53.357 Is Attention Necessary for the Representational Advantage of Good Exemplars over Bad Exemplars?

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Zhenan Shao¹,² (zhenans2@illinois.edu), Diane M. Beck¹,²; ¹Department of Psychology, University of Illinois Urbana-Champaign, ²Beckman Institute, University of Illinois Urbana-Champaign

53.358 Exploring Similarities in Human and Macaque Representational Structure using fMRI

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Kurt Braunlich¹ (kurt.braunlich@nih.gov), Marianne Duyck¹, Kyle Behel¹, Stuart Duffield¹, Bevil Conway¹, Chris Baker¹; ¹NIH

Visual Search: Scenes and other natural environments

53.359 Investigating the effects of a virtual reality vs. screen-based testing setup on incidental memory after visual search through scenes

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Julia Beitner¹ (beitner@psych.uni-frankfurt.de), Jason Helbing¹, Erwan J. David¹, Melissa L.-H. Vo¹; ¹Scene Grammar Lab, Goethe University Frankfurt

53.360 Feature integration in visual search for real-world scenes

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Gaeun Son¹ (gaeun.son@mail.utoronto.ca), Michael L. Mack, Dirk B. Walther; ¹University of Toronto

53.361 Searching near and far: The attentional template incorporates viewing distance

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Surya Gayet¹,² (surya.gayet@gmail.com), Elisa Battistoni³, Sushrut Thorat¹,⁴, Marius Peelen¹; ¹Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, The Netherlands, ²Helmholtz Institute, Experimental Psychology, Utrecht University, Utrecht, The Netherlands, ³Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy, ⁴Institute of Cognitive Science, Osnabrück University, Osnabrück, Germany

53.362 Active visual search in a 3D real world environment

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Tiffany Wu¹ (tiffwu1027@gmail.com), John K. Tsotsos¹; ¹York University, Toronto, Canada

53.363 Probing Satisfaction of Search Using a Laboratory Analog of Medical Image Analysis
**53.364 Visual Selection Interacts With Action Planning in Natural Foraging Tasks**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Danilo A. Kuhn (danilo.kuhn@uni-marburg.de), Jan Tünnermann, Anna Schubö; Philipps-University Marburg

**53.365 The semantic distance between a linguistic prime and a natural scene target predicts reaction times in a visual search experiment**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Katerina Marie Simkova (kms863@student.bham.ac.uk), Jasper JF van den Bosch, Damiano Grignolio, Clayton Hickey, Ian Charest; CHBH, School of Psychology, University of Birmingham, cerebrUM, Département de Psychologie, Université de Montréal

**53.366 Comparing Neural Networks and Human Subjects in Assessing Trademark Similarities**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shinsuke Shimojo (sshimojo@caltech.edu), Filip-Mihai Toma, Masaiko Noguchi, Elijah Cole, Markus Marks, Mohammad Shehata, Daw-An Wu; California Institute of Technology, Toyohashi University of Technology

**53.367 Rare vs. Frequent Target Search in 2D and Segmented-3D Searches**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Stephen Adamo; University of Central Florida

**53.368 Using computer-simulated lung nodules to evaluate the effects of prevalence rate on perceptual learning of lung nodule detection in initially naïve observers**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Frank Tong (frank.tong@vanderbilt.edu), Hui-Yuan Miao, Hojin Jang, Edwin Donnelly; Psychology Department, Vanderbilt University, Vanderbilt Vision Research Center, Vanderbilt University, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Department of Radiology, Ohio State Wexner Medical Center

**53.369 Just look away: Could attention allocation to scene grammar violations during unrelated object searches be modulated by individual differences in language experience?**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Naomi Vingron (naomi.vingron@mail.mcgill.ca), Melissa Vo; Scene Grammar Lab, Department of Psychology, Goethe University, Frankfurt am Main, Germany

**53.370 Predictions benefit performance in dynamic search across the adult lifespan**  
*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nir Shalev (nir.shalev@wolfson.ox.ac.uk), Sage Boettcher, Anna Christina Nobre; University of Oxford
Tuesday Morning Posters in Pavilion

Development: Perception and cognition

53.401 Development of navigational affordance perception in infancy

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Frederik Kamps¹ (fkamps@mit.edu), Emily Chen², Adele Mah³, Stephanie Washburn⁴, Nancy Kanwisher⁵, Rebecca Saxe⁶; ¹Massachusetts Institute of Technology

53.402 A novel eye-tracking task to assess mental rotation from infancy to early childhood

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Aaron Beckner¹ (agb222@cornell.edu), Mary Simpson¹, David Tompkins¹, Vanessa LoBue², Lisa Oakes³, Marianella Casasola¹; ¹Cornell University, ²Rutgers University, ³UC Davis

53.403 Investigating the neural analog-to-symbolic shift in 5- to 7-year-old childrens’ numerical cognition

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Caroline M. Kaicher¹ (ckaicher@andrew.cmu.edu), Lauren S. Aulet¹, Jessica F. Cantlon¹; ¹Carnegie Mellon University

53.404 Neurocognitive mechanisms of attentional control development

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Aaron Buss¹ (aarontbuss@gmail.com), Alexis McCraw¹, Kara Lowery¹, Hollis Heim¹, Rachel Eddings¹, Jaqueline Sullivan¹; ¹University of Tennessee, Knoxville

53.405 Assessing Visual Short-Term Memory in 5- to 12-Month-Old Infants Using an Eye-Tracking Change-Localization Task at Set Sizes Three and Four

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Van T. Pham¹ (vttpham@ucdavis.edu), Michaela C. DeBolt¹, Aaron G. Beckner², Lisa M. Oakes¹; ¹University of California, Davis, ²Cornell University

53.406 Associations Among Attention, Child Temperament, and Resting State Connectivity

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Jacqueline Sullivan¹, Kara Lowery¹, Rachel Eddings¹, Aaron Buss¹; ¹University of Tennessee, Knoxville

53.407 Differential development of object and location processing is a critical factor to a child’s passing or failing explicit false-belief tasks

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Rebecca J. Rennert¹ (rebecca.rennert@emory.edu), Virginia J. Chambers¹, Daniel D. Dilks¹; ¹Emory University

53.408 Young Children’s Cost-dependent Tradeoff Between Looking and Remembering

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*
53.409 Social Attribution Behavior in Newly Sighted Children.

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Dhun Verma1, Mrinalini Yadav1, Priti Gupta4, Chetan Ralekar3, Shlomit Ben-Ami6, Sharon Gilad-Gutnick3, Seth Riskin3, Flip Phillips5, Kimiya Jazayeri7, Suma Ganesh2, Pawan Sinha1; 1Project Prakash, Dr Shroff’s Charity Eye Hospital, New Delhi, 2Department of Paediatric Ophthalmology, Dr Shroff’s Charity Eye Hospital, New Delhi, 3Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, USA, 4Amarnath and Shashi Khosla School of Information Technology, IIT, Delhi, 5MAGIC Center, Rochester Institute of Technology, Rochester, NY, USA, 6Sagol School of Neuroscience, School of Psychological Sciences, Tel-Aviv University, Tel-Aviv, Israel, 7Brookline High School, Brookline, MA, USA

53.410 A quantitative method for localizing RMS contrast in egocentric images

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Evelina E Dineva1, Eric S Seemiller2, T Rowan Candy1, Linda B Smith1; 1Indiana University, 2Air Force Research Laboratory

53.411 Photophobia and Poor Night Vision are the Most Disruptive Symptoms of Visual Snow Syndrome

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Carter B. Mulder1 (mulde109@umn.edu), Samantha A. Montoya2, Michael S. Lee3, Stephen A. Engel4, Michael-Paul Schallmo1; 1University of Minnesota, Department of Psychiatry and Behavioral Sciences, 2University of Minnesota, Graduate Program in Neuroscience, 3University of Minnesota, Department of Ophthalmology and Visual Neurosciences, 4University of Minnesota, Department of Psychology

Spatial Vision: Models and image statistics

53.412 Covariance between similarly tuned populations in human visual cortex is model-dependent

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Josh Wilson1 (joshmw@stanford.edu), Justin Gardner1; 1Stanford University

53.413 Evaluating Pyramid-Based Image Statistics Using Contrastive Learning

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Vasha DuTell1,2 (vashadutell@gmail.com), William Freeman1, Ruth Rosenholtz1,2; 1MIT CSAIL, 2MIT Brain and Cognitive Sciences

53.414 Statistical characterization of medical images of bone

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Elena Ajayi1,2 (elenaajayi@outlook.com), Jonathan Victor2; 1St. John’s University, 2Weill Cornell Medical College

53.415 When do contrast sensitivity impairments (or enhancements) depend on spatial frequency? Two ways to avoid spurious interactions.

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Howard Bi¹ (howardbi97@gmail.com), Yonatan Abrham¹, Pamela Butler²,³, Boyang Hu¹, Brian Keane¹; ¹University of Rochester, ²Nathan S. Kline Institute for Psychiatric Research, ³New York University School of Medicine

53.416  A image gradient approach to perceptual metric space
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Alan Johnston¹; ¹University of Nottingham

53.417  Elucidating the relationship between spatial summation and center-surround antagonism
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Christopher Wu¹, Daniel Coates¹; ¹University of Houston, College of Optometry

53.418  Cortically motivated recurrence enables visual task extrapolation
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Vijay Veerabadran¹ (vveeraba@ucsd.edu), Yuan Tang¹, Ritik Raina¹, Virginia de Sa¹; ¹University of California - San Diego

53.419  Is edge sensitivity more than contrast sensitivity?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Lynn Schmittwilken¹ (lschmittwilken@tu-berlin.de), Felix A. Wichmann², Marianne Maertens¹; ¹Technical University Berlin, ²University of Tuebingen

53.420  Non-parametric Hierarchical Bayesian Modeling of the Contrast Sensitivity Function
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Yukai Zhao¹ (zhaoyukai@nyu.edu), Luis Andres Lesmes², Michael Dorr², Zhong-Lin Lu¹,³; ¹New York University, ²Adaptive Sensory Technology Inc., ³NYU Shanghai

53.421  Foveated metamers of the early visual system
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
William F. Broderick¹ (billbrod@gmail.com), Gizem Rufo², Jonathan Winawer³, Eero P. Simoncelli¹,³; ¹Flatiron Institute, ²Meta, Inc., ³New York University

53.422  An image-computable spatial receptive field model of the midget retinal ganglion cell mosaic
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Nicolas Cottaris¹ (cottaris@upenn.edu), Brian Wandell², David Brainard¹; ¹University of Pennsylvania, Department of Psychology, ²Stanford University, Department of Psychology

53.423  An Image-Computable Model of Orientation-Tuned Normalization
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Ilona Bloem¹ (ibloem@nyu.edu), Iris Groen², Kenichi Yuasa¹, Giovanni Piantoni³, Stephanie Montenegro⁴, Adeen Flinker⁴, Sasha Devore⁴, Orrin Devinsky⁴, Werner Doyle⁴, Patricia Dugan⁴, Daniel Friedman⁴, Nick Ramsey³,
Michael Landy¹, Natalia Petridou³, Jonathan Winawer¹; ¹New York University, ²University of Amsterdam, ³University Medical Center Utrecht, ⁴New York University School of Medicine

53.424 How does perceptual discrimination relate to neuronal receptive fields?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Jingyang Zhou¹,² (jyz205@nyu.edu), Chanwoo Chung²,³; ¹Flatiron Institute, ²New York University, ³Weill Cornell Medicine of Cornell University

53.425 Plenoptic: A platform for synthesizing model-optimized visual stimuli
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Lyndon Duong¹, Kathryn Bonnen², William Broderick³, Pierre-Étienne Fiquet¹, Nikhil Parthasarathy¹, Thomas Yerxa¹, Xinyuan Zhao¹, Eero Simoncelli¹,³; ¹New York University, ²Indiana University, ³Flatiron Institute

Motion: Higher-order

53.426 A new approach for the study of visual orientation perception and decisions
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Ying Lin¹,² (ylin78@ur.rochester.edu), Jose Reynoso¹,²,³, Zhen Chen¹,², Ralf Haefner¹,², Duje Tadin¹,²; ¹University of Rochester, ²Center for Visual Science, ³School of Medicine and Dentistry

53.427 A rolling illusion counter to sensory signals and physical plausibility
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Akihito Maruya¹ (user3098@sunyopt.edu), Qasim Zaidi²; ¹State University of New York, College of Optometry

53.428 Does the Aubert-Fleischl phenomenon affect perceived object speed in realistic virtual scenes?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Bjoern Joerges¹ (bjoerges@yorku.ca), Laurence R. Harris¹; ¹Center for Vision Research, York University

53.429 Occluders help estimate time-to-contact in motion prediction tasks
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Cristina de la Malla¹ (c.delamalla@ub.edu), Pamela Villavicencio¹, Joan López-Moliner¹; ¹Vision and Control of Action (VISCA) Group, Department of Cognition, Development and Psychology of Education, Institute of Neurosciences, Universitat de Barcelona, Spain

53.430 The frame effect is suppressed for stationary probes.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Patrick Cavanagh¹ (patcav1@yorku.ca), Stuart Anstis²; ¹Glendon College and CVR, York University, ²UCSD

53.431 What motion information can be retained within iconic memory?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Remy Allard¹ (remy.allard@umontreal.ca), Yara Mohiar¹; ¹Universite de Montreal

53.433 Like a Moth to the Flame: Visual Sensitivity to 2D and 3D Renderings of Growing
Fires
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Micah D. Russell¹, Justin W. Bonny¹, Arnaud Trouvé², James A. Milke²; ¹Morgan State University, ²University of Maryland, College Park

53.434 Transformational Apparent Motion In A Recurrent Neural Network
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Sharif Saleki¹ (sharif.saleki.gr@dartmouth.edu), Patrick Cavanagh²,³, Peter Tse¹; ¹Dartmouth College, ²Glendon College, Toronto, ON, Canada, ³Centre for Visual Research, York university, Toronto, ON, Canada

Attention: Bottom-up

53.435 Is Singleton Detection Really Less Effortful than Feature Search?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Sangji Lee¹ (lee73769598@tamu.edu), Andrew Clement¹, Brian Anderson¹; ¹Texas A&M University

53.436 Serial search suppresses attentional capture by a singleton, but not attentional orienting by a spatial cue.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Hae Chan Jeong¹ (hczzang71@naver.com), Suk Won Han¹; ¹Chungnam National University

53.437 How we learn to ignore singleton distractors: Suppressing saliency signals or specific features?
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Isaac Savelson¹ (savelson.1@osu.edu), Andrew B. Leber¹; ¹The Ohio State University

53.438 A New Technique for Measuring the Salience of Distractors
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Brad T. Stilwell¹ (stilwell@binghamton.edu), Howard Egeth², Nicholas Gaspelin¹; ¹State University of New York (SUNY) at Binghamton, ²Johns Hopkins University

53.439 Task relevance changes the impact of salient items on attention
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Greta Manini¹,² (gremanini@go.ugr.es), Elisa Martín-Arévalo¹, Fabiano Botta¹, Juan Lupiáñez¹, Nancy Carlisle²; ¹University of Granada, ²Lehigh University

53.440 Contextual cues reduce attentional capture
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Jeff Moher¹ (jmoher@gmail.com), Andrew Leber²; ¹Connecticut College, ²The Ohio State University

53.441 Tracking exogenous attentional capture in an urgent covert perceptual choice task
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Emily E Oor¹ (oore220@wfu.edu), Anthony W Sali¹; ¹Wake Forest University
Eye Movements: Complex tasks

53.442 The influence of eye movements during perceptual judgements
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Avi Aizenman¹ (avigael_aizenman@berkeley.edu), Alexander Goettker¹, Karl R. Gegenfurtner¹; ¹Psychology Department, Justus-Liebig-University, Giessen

53.443 Linguistic processes intervene much later than visuo-motor processes during an eye fixation: Evidence from Fixation-Related Potentials during reading.
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Régis Mancini¹-² (regis.mancini@univ-amu.fr), Laure Spieser², Eric Castet¹, Boris Burle², Françoise Vitu¹; ¹Laboratoire de Psychologie Cognitive (LPC), ²Laboratoire de Neurosciences Cognitives (LNC)

53.444 The effects of monocular and binocular retinal image minification during natural tasks
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Iona R. McLean¹ (ionamclean@berkeley.edu), Ian M. Erkelens², Esther F. Sherbak¹, Loganne T. Mikkelsen¹, Robin Sharma², Emily A. Cooper¹; ¹University of California, Berkeley, ²Meta Reality Labs

53.445 How Task Instructions Influence Your Gaze in Daily Life
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Andrea Ghiani¹ (a.ghiani@vu.nl), David Mann¹, Eli Brenner¹; ¹Vrije Universiteit Amsterdam

53.446 Where are my students looking at? Using Gaze Synchronicity to Facilitate Online Learning
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Marian Sauter¹, Tobias Wagner¹, Teresa Hirzle², Enrico Rukzio¹, Anke Huckauf¹; ¹Ulm University, ²University of Copenhagen

53.447 Oculomotor “laziness” constrains fixation selection in real-world tasks
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Charlie S. Burlingham¹-² (csb455@nyu.edu), Naveen Sendhilnathan¹, T. Scott Murdison³, Michael J. Proulx¹; ¹Reality Labs Research, Meta Platforms Inc., ²New York University, ³Reality Labs, Meta Platforms Inc.

53.448 Ancestral visuo-motor computations in the midbrain underly readers’ oculomotor behavior across spaced and unspaced languages
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Françoise Vitu¹ (francoise.vitu-thibault@univ-amu.fr), Hossein Adeli², Gregory J. Zelinsky²; ¹Laboratoire de Psychologie Cognitive, CNRS, Aix-Marseille Université, ²Stony Brook University

53.449 Eye and hand movements when playing a dynamic computer game (Pong)
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
Anna Schroeger¹ (annaschroeger@gmail.com), Alexander Goettker¹, Doris Braun¹, Karl Gegenfurtner¹; ¹Justus Liebig University Giessen
53.450 Processing load in pitch and rhythm notation reflects the discriminatory eye responses  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Hyun Ji Kim¹ (hyunjikim21@korea.ac.kr), Cahi-Youn Kim¹; ¹School of Psychology, Korea University

53.451 Supervising is not the same as driving: the influence of the interaction between driving modality and time-on-driving on stationary gaze entropy during long, monotonous drive  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Leandro Luigi Di Stasi¹,2 (distasi@ugr.es), Marcelo A. C. Fernandes²,³, Francesco Angioi², Christophe Prat⁴, Jaka Sodnik⁵, Carolina Diaz-Piedra²,⁶; ¹Joint Centre University of Granada - Spanish Army Training and Doctrine Command, Spain, ²Mind, Brain, and Behavior Research Center, University of Granada, Granada, Spain, ³Department of Computer Engineering and Automation, UFRN, Natal, RN, Brazil, ⁴Commissariat à l’énergie atomique et aux énergies alternatives-CEA, Grenoble, France, ⁵University of Ljubljana. Faculty of Electrical Engineering, Ljubljana, Slovenia, ⁶College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ, USA

53.452 The Impact of Cognitive Differences on Processing COVID-19 Data Visualizations  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Kristine Antonyan¹ (kantonyan@ufl.edu), Do Hyong (Ryan) Koh¹, Poorya Shidfar¹, Pavlo Antonenko¹; ¹University of Florida

53.453 Gaze Behavior While Detecting Changes in Spatial Gist in a Virtual Environment  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Morgan LaFavers¹ (u1207852@utah.edu), Scott Johnson², David Evans², Emily Tighe¹, Charisse Spencer², Sarah Creem-Regehr¹, Jeanine Stefanucci¹, Brent Chamberlain²; ¹Psychology Department, University of Utah, ²Landscape Architecture and Environmental Planning Department, Utah State University

Visual Memory: Buildup, imagery, ensembles

53.454 A computational modeling framework for ensemble perception  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Jinhyeok Jeong¹ (jjh00413@gmail.com), Thomas Palmeri¹; ¹Vanderbilt University

53.455 Building up visual memories from sensory evidence  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Maria Robinson¹ (mrobinson@ucsd.edu), Isabella DeStefano², Edward Vul³, Timothy Brady⁴; ¹University of California, San Diego

53.456 Comparison of Signal to Noise in Vision and Imagery for qualitatively different kinds of stimuli  
Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion
53.457 Imagery in a pair of aphantasic and non-aphantasic identical twins: Neural similarities and differences

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Deepasri Prasad1,2 (deepasri.prasad.gr@dartmouth.edu), Emma Megla2, Wilma A. Bainbridge2; 1Dartmouth College, 2University of Chicago

53.458 Top-down predictions of specific visual features in the brain speed up their bottom-up categorizations for perceptual decision

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Yuening Yan1 (yuening.yan@glasgow.ac.uk), Robin A.A. Ince1, Jiayu Zhan1, Oliver Garrod1, Philippe Schyns1; 1University of Glasgow

53.459 The behavioral performance and cortical structural properties of aphantasia

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Shuai Chang1 (aaronchangshuai@outlook.com), Jinhui Wang1, Ming Meng1; 1South China Normal University

53.460 Perceiving precarity (beyond instability) in block towers

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Aalap D. Shah1 (aalap.shah@yale.edu), Kimberly W. Wong1, Ilker Yildirim1, Brian Scholl1; 1Yale University

53.461 Representational Momentum and Aerodynamics: Does drag force impact the representational momentum effect?

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Genna Telschow1, Mark Neider1; 1University of Central Florida

53.462 Are vividness judgments in mental imagery correlated with perceptual thresholds?

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Ian Charest1 (i.charest@bham.ac.uk), Clémence Bertrand Pilon1, Hugo Delhaye1, Vincent Taschereau-Dumouchel1,2,3, Frédéric Gosselin1; 1cerebrum, Département de Psychologie, Université de Montréal, Montréal, Canada, 2Département de Psychiatrie et d'addictologie, Université de Montréal, Montréal, Canada, 3Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal, Montréal, Canada

Tuesday Afternoon Posters in Banyan Breezeway

Plasticity and Learning: Cortex

56.301 The neurochemistry of adult sensory eye dominance plasticity

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Ka Yee Kam1, Dorita H. F. Chang1; 1Department of Psychology, The University of Hong Kong

56.302 Visual experience is necessary for selectivity of faces over language in the
56.303 Neural predictors of surprise in controlled visual task and naturalistic viewing contexts

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Elizabeth Saccone¹ (esaccon2@jhu.edu), N. Apurva Ratan Murty², Judy Kim³, Akshi LNU¹, Mengyu Tian¹, 4, Nancy Kanwisher², Marina Bedny¹; ¹Johns Hopkins University, ²Massachusetts Institute of Technology, ³Princeton University, ⁴Beijing Normal University at Zhuhai

56.304 Neural representations of visual stimuli in primary visual cortex change as a function of threat and safety learning

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Ziwei Zhang¹ (zz112@uchicago.edu), Monica Rosenberg¹; ¹The University of Chicago

56.305 The medial prefrontal cortex and dorsolateral prefrontal cortex play complementary roles in facilitating visual perceptual learning during sleep

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Lihan Cui¹ (lihancui@ufl.edu), Andreas Keil², Mingzhou Ding¹; ¹J Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, ²Department of Psychology and NIMH Center for Emotion and Attention, University of Florida

56.306 From repetition-based to reactivation-induced perceptual learning: engagement of higher-order attentional brain regions

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Taly Kondat¹ (talykondat@mail.tau.ac.il), Niv Tik¹, haggai Sharon², Ido Tavor¹, Nitzan Censor¹; ¹Sagol School of Neuroscience, Tel-Aviv University, ²Tel Aviv Sourasky Medical Center

56.308 Direction discrimination training recovers fine orientation perception in V1-damage fields

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Matthew Cavanaugh¹ (matthew_cavanaugh@urmc.rochester.edu), Tina Liu², Elisha Merriam², Duje Tadin¹, Krystel Huxlin¹; ¹University of Rochester, ²Laboratory of Brain and Cognition, National Institute of Mental Health

56.309 Bypassing V1: Orientation selectivity in hMT+ of cortically-blinded patients

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Tina T. Liu¹ (tong.liu2@nih.gov), Helena P. Bachmann¹, Matthew R. Cavanaugh², ³, Berkeley K. Fahrenthold², ³, Michael D. Melnick², ³, Shruti Japee¹, Krystel R. Huxlin², ³, Elisha P. Merriam¹; ¹Laboratory of Brain and Cognition, National Institute of Mental Health, NIH, Bethesda, MD, USA, ²Flaum Eye Institute, University of Rochester Medical Center, Rochester, NY, USA, ³Center for Visual Science, University of Rochester, Rochester, NY, USA, ⁴Brain and Cognitive Sciences, University of Rochester, Rochester, NY, USA
**56.310 The Timecourse of Distorted Representations in the Primary Visual Cortex**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

O. Batuhan Erkat¹,², Julien Corbo², John P. McClure Jr.¹,², Pierre-Olivier Polack²; ¹Rutgers University - Newark, Behavioral and Neural Sciences Graduate Program, ²Rutgers University - Newark, Center for Molecular and Behavioral Neuroscience

**56.311 Short-term monocular deprivation in adult humans alters pulvino-cortical functional connectivity measured with resting-state fMRI at ultra-high field**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Miriam Acquafredda¹,² (miriam.acquafredda@unifi.it), Laura Biagi³, Michela Tosetti³, Maria Concetta Morrone¹, Paola Binda¹; ¹University of Pisa, Italy, ²University of Florence, Italy, ³IRCCS Stella Maris, Calambrone, Pisa, Italy, ⁴IMAGO Center, Pisa, Italy

**Plasticity and Learning: Sensorimotor**

**56.312 Using tools as cues for dual adaptation to opposing visuomotor rotations in virtual reality**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Andrew King¹ (kinga21@yorku.ca), Laura Mikula², Shanaathanan Modchalingam³, Bernard Marius t'Hart⁴, Denise Henriques⁵; ¹York University, ²Centre for Vision Research

**56.313 Modulations of sensorimotor network through visual motor training in people with Parkinson’s disease (PwPD)**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Joseph FX DeSouza¹,²,⁷ (desouza@yorku.ca), J Royze Simon¹,⁷, Ashkan Karimi²,⁷, Amita Agrawal²,⁷, Rebecca E Barnstaple¹,³,⁷, Judith Bek⁶, Rachel Bar⁴, Karolina Bearss¹, Katyoun Ghanai³,⁷; ¹Dept of Psychology, York University, ²Interdisciplinary Graduate Studies, York University, ³Chigamik Community Health Centre, Midland, ⁴Canada#039;s National Ballet School, Toronto, ⁵Dept of Music, York University, ⁶Faculty of Kinesiology and Physical Education, University of Toronto, ⁷Centre for Vision Research, York University, Canada

**56.314 Specific motor learning induced by space-variant visual feedback distortion of the hand position**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Giulia Sedda¹ (giulia.sedda@unica.it), Giulia Olla¹, Danilo Pani¹; ¹Department of Electrical and Electronic Engineering (DIEE), University of Cagliari, Cagliari, Italy

**56.315 The effect of visual statistical learning on proactive motor control is modulated by transcranial random noise stimulation over frontoparietal cortex.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Giulia Ellena¹ (giulia.ellena@iit.it), Federica Contò¹, Michele Tosi¹,², Lorella Battelli¹,³; ¹Center for Neuroscience and Cognitive Systems@UniTn, Istituto Italiano di Tecnologia, Rovereto, Italy, ²Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy, ³Department of Neurology, Beth Israel Hospital, Harvard Medical School, Boston, USA
The domain-specific contribution of working memory to sensorimotor learning

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Sean O'Bryan¹ (sean_obryan@brown.edu), Joshua Liddy¹,², Joo-Hyun Song¹; ¹Brown University, ²University of Massachusetts - Amherst

Effects of different kinds of feedback on unconscious action learning and unconscious perception learning

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Jie Gao¹ (jiegao@m.scnu.edu.cn), Zhiqing Deng¹, Jiantong Ye¹, Yichong Zhang¹, Juan Chen¹,²; ¹Center for the Study of Applied Psychology, Guangdong Key Laboratory of Mental Health and Cognitive Science, and the School of Psychology, South China Normal University, Guangzhou, Guangdong Province, 510631, China, ²Key Laboratory of Brain, Cognition and Education Sciences (South China Normal University), Ministry of Education

**Perception & Action: Grasping**

Grasping type affects Configural Encoding in Visual Working Memory

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Shinhae Ahn¹ (a.shinhae@wustl.edu), Hyung-Bum Park², Richard A. Abrams¹; ¹Washington University in St. Louis, ²University of California, Riverside

Looking at the Ebbinghaus illusion: differences in fixations fail to explain a classic perception-action dissociation

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Robert Whitwell¹, Mel Goodale¹, Mehul Garach², Irene Sperandio³; ¹The University of Western Ontario, London, Canada, ²Windsor Regional Hospital, Windsor, Canada, ³University of Trento, Rovereto, Italy

Multisensory grasping relies on individual finger positions and their joint relationship

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Ivan Camponogara¹ (ic39@nyu.edu), Robert Volcic¹; ¹New York University Abu Dhabi

Visual selection of multi-digit contact surfaces for objects of varying mass

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Kira Isabel Dehn¹ (kira.i.dehn@psychol.uni-giessen.de), Guido Maiello¹, Fabrizio Lepori¹,², Frieder Hartmann¹, Constantin A. Rothkopf³, Roland W. Fleming¹,⁴; ¹Justus Liebig University Giessen, ²University of Genoa, ³Technical University of Darmstadt, ⁴Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

The simultaneous tilt illusion reveals separate yet interacting visual systems for perception and action

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Hasan A. Hasan¹ (hasanh822@gmail.com), James T. Enns¹, Robert L. Whitwell²; ¹University of British Columbia, Vancouver, Canada, ²Western University, London, Canada
56.323 Visually occluded grasp modulates orientation representation in human early visual cortex  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Thanaphop Threethipthikoon¹ (238003r@gs.kochi-tech.ac.jp), Zhen Li², Hiroaki Shigemasu¹; ¹Kochi University of Technology, ²University of Hong Kong

56.324 Shape Influences Perceived Ease of Grasping  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

McKenzie Gunter¹ (w10149389@usm.edu), Tyler Overstreet¹, Catherine Dowell¹, Alen Hajnal¹; ¹University of Southern Mississippi

56.325 Abstract representations of grasping action parameters in the dorsal stream  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Naama Zur¹ (nrz9@georgetown.edu), Yuqi Liu¹,², Sriparna Sen¹, Nanak Nihal Khalsa¹, Jody Culham³,⁴, Ella Striem-Amit¹; ¹Georgetown University, ²Institute of Neuroscience, Key Laboratory of Primate Neurobiology, CAS Center for Excellence in Brain Sciences and Intelligence Technology, Chinese Academy of Sciences, Shanghai, China; ³Department of Psychology, University of Western Ontario, London, Ontario, N6A 5C2, Canada; ⁴Brain and Mind at Western, Western Interdisciplinary Research Building, University of Western Ontario, London, Ontario, N6A 3K7, Canada

56.326 How humans visually select how and where to grasp objects with articulated hands  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Frieder Hartmann¹ (frieder.hartmann@psychol.uni-giessen.de), Guido Maiello¹, Fabrizio Lepori¹,², Kira Dehn¹, Constantin A. Rothkopf³, Roland W. Fleming; ¹Justus Liebig University Gießen, ²Department of Informatics, Bioengineering, Robotics, and Systems Engineering, University of Genoa, ³Institute of Psychology & Centre for Cognitive Science, Technical University of Darmstadt, ⁴Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

3D: Spatial layout and VR/AR

56.327 Psychophysical scale of optical distortions of multifocal spectacle lenses  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yannick Sauer¹ (yannick.sauer@uni-tuebingen.de), David-Elias Künstle¹, Felix Wichmann¹, Siegfried Wahl¹,²; ¹University of Tübingen, ²Carl Zeiss Vision International GmbH, Aalen, Germany

56.328 People Separate Allocentric and Egocentric Cues to Judge Orientation of their Surroundings and the Self  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jong-Jin Kim¹ (johnk84@yorku.ca), Pierre-Pascal Forster², Meaghan McManus², Katja Fiehler², Laurence Harris¹,³; ¹Center for Vision Research, York University, ²Justus Liebig University Giessen, ³Department of Psychology, York University
56.329 Perceived absolute distances in the intermediate distance range (>2 m) affected by binocular vision and target duration

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yiya Chen¹, Zijiang He², Teng Leng Ooi¹; ¹The Ohio State University, ²University of Louisville

56.330 Tracking Perceptual Depth with Eye Vergence Movements in Real World, Augmented Reality, and Virtual Reality Environments

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Mohammed Safayet Are¹ (arefin@acm.org), J. Edward Swan II², Russell Cohen Hoffing¹, Steven M. Thurman¹; ¹DEVCOM US Army Research Laboratory, ²Mississippi State University, USA

56.331 A method to align real and virtual objects for mixed reality investigations of visually guide grasping

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Fabrizio Lepori¹, Guido Maiello¹, Kira Dehn¹, Frieder Hartmann¹, Manuela Chessa², Constantin A. Rothkopf³, Roland W. Fleming¹,⁴; ¹Department of Experimental Psychology, Justus Liebig University Giessen, ²Department of Informatics, Bioengineering, Robotics, and Systems Engineering, University of Genoa, ³Institute of Psychology & Centre for Cognitive Science, Technical University of Darmstadt, ⁴Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

56.332 Angular Expansion in Perceived Elevation Without a Visual Ground Plane

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Prince Tardeh¹, Crystal Xu¹, Andrew Cheng¹, Frank Durgin¹; ¹Swarthmore College

56.333 Vection, presence, and cybersickness in a virtual reality driving simulation

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Benjamin Hughes¹ (bephughe@ucsc.edu), Hassan Naeem¹, Nicolas Davidenko¹; ¹University of California, Santa Cruz

56.334 Perceived location of a static target in the dark affected by self-motion in the natural environment

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lizhu Yan¹ (lizhu.yan@louisville.edu), Lingling Bai¹, Teng Leng Ooi², Zijiang He¹; ¹University of Louisville, ²The Ohio State University

56.336 Pupil responses to near and far stimuli at varying fixation depths in virtual reality

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Marnix Naber¹ (marnixnaber@gmail.com), Brendan Portengen¹,², Christoph Strauch¹; ¹Experimental Psychology, Helmholtz Institute, Utrecht University, The Netherlands, ²Ophthalmology, University Medical Center Utrecht, The Netherlands

56.337 No evidence for a ‘close advantage’ effect in virtual reality

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*
**56.338 Affordances and expectations about depth play a role in real objects’ access to visual awareness**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Rebecca Hornsey\(^1\) (rlhornsey@outlook.com), Laurie Wilcox\(^1\), Erez Freud\(^1\); \(^1\)York University

Uri Korisky\(^1,2\) (uri.korisky@gmail.com), Niv Cohen\(^1\), Mor Farjun\(^1\), Noa Kaner\(^1\), Yael Solar\(^1\), Liad Mudrik\(^1\); \(^2\)Tel Aviv University, \(^3\)Hebrew University of Jerusalem

**56.339 Correct rendering blur**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Khatar Alshammari\(^1\); \(^1\) -

**56.340 Exploration of laser-based augmented reality device in the investigation of melanopsin’s role in human vision, via direct stimulation of the blind spot.**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Amir Vala Tavakoli\(^1\) (amirvala@caltech.edu), Teppei Imamura\(^2\), Ryo Ogawa\(^2\), Masanori Iwasaki\(^2\), Takanobu Omata\(^2\), Jesus del Rio Salgado\(^1\), Ilya Rossi\(^1\), Shao-Min Hung\(^3\), Daw-An Wu\(^1\), Shinsuke Shimojo\(^1\); \(^1\)Division of Biology and Biological Engineering, California Institute of Technology, \(^2\)Sony Group Corporation, \(^3\)Faculty of Science and Engineering, Waseda University

---

**Eye Movements: Scenes, VR, 3D**

**56.341 GAZE - a benchmark sample of free gaze behaviour towards complex scenes**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Marcel Linka\(^1\) (marcellinka54@gmail.com), Harun Karimpur\(^1\), Benjamin de Haas\(^1\); \(^1\)Department of Experimental Psychology, Justus-Liebig-University Giessen

**56.342 The influence of semantics and scene congruence on visual change detection during saccades**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Brian Odegaard\(^1\) (bodegaard@ufl.edu), Isaac Lee\(^2\), Alan L.F. Lee\(^2\), Addison Sans\(^1\), Leo Ng\(^2\), Ryan Faulkner\(^1\), Andrew Haun\(^3\), Dana Chesney\(^4\), David Rosenthal\(^5\), Francis Fallon\(^4\); \(^1\)University of Florida, \(^2\)Lingnan University, \(^3\)University of Wisconsin, \(^4\)St. John’s University, \(^5\)City University of New York

**56.343 The Role of Prediction During Continuous Visual Tracking in 3D Environments**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Aleksandra Marijan\(^1\) (amarija@iu.edu), Clara Mestre\(^1\), T Rowan Candy\(^1\), Kathryn Bonnen\(^1\); \(^1\)Indiana University

**56.344 Cues for predictive eye movements in naturalistic scenes**  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*  
Alexander Goettker\(^1\) (alexander.goettker@psychol.uni-giessen.de), Karl Gegenfurtner\(^1\); \(^1\)Justus Liebig University Giessen

**56.345 Vergence performance to natural images of different sizes**
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Clara Mestre¹ (cmestre@iu.edu), Alyssa Powell¹, Tanner Grace¹, T. Rowan Candy¹; ¹Indiana University

56.346 Dynamics of gaze and body while viewing omnidirectional stimuli
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Erwan David¹ (david@psych.uni-frankfurt.de), Melissa Vo¹; ¹Scene Grammar Lab, Goethe University Frankfurt

56.347 Reconstructing pupillary dynamics during free-viewing of movies: the roles of pupil light and orienting responses
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Yuqing Cai¹ (y.cai2@uu.nl), Christoph Strauch¹, Marnix Naber¹; ¹Experimental Psychology, Helmholtz Institute, Faculty of Social Sciences, Utrecht University, The Netherlands

56.348 Looking for potential action: Differences in exploration behavior of static and (potentially) dynamic scenes
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Nicolas Roth¹,² (roth@tu-berlin.de), Jasper McLaughlin¹, Klaus Obermayer¹,², Martin Rolfs¹,³; ¹Cluster of Excellence Science of Intelligence, ²Technische Universität Berlin, ³Humboldt-Universität zu Berlin

56.349 Free Moving Gaze-related Electroencephalography in Mobile Virtual Environments
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Ying Choon Wu¹ (yingchoon@gmail.com), Chiyuan Chang¹, Weichen Liu¹, Cory Stevenson², Russell Cohen Hoffing³, Steven Thurman³, Tzyy-Ping Jung¹; ¹UC San Diego, ²National Yang Ming Chiao Tung University, ³Army Research Laboratory

Motion: Optic flow

56.350 Recasting visual areas specialized for processing optic flow in the human brain
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Li Li¹,² (li114@nyu.edu), Xuechun Shen³,², Shuguang Kuai³,²; ¹Faculty of Arts and Science, New York University Shanghai, Shanghai, China, ²NYU-ECNU Institute of Brain and Cognitive Science at New York University Shanghai, Shanghai, China, ³School of Psychology and Cognitive Science, East China Normal University, Shanghai, China

56.351 Retinal flow controls gait during natural locomotion
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Daniel Panfilii¹ (dan.panfilii@utexas.edu), Nathaniel Powell², Youjin Oh³, Mary Hayhoe⁴; ¹University of Texas at Austin

56.352 Retinal optic flow during real-world behavior
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway
Jonathan Matthis¹ (jonmatthis@gmail.com), Trenton Wirth¹; ¹Northeastern University

56.353 Speed estimation for spatiotemporally bound and unbound motion stimuli
Giuliana Martinatti Giorjiani\textsuperscript{1,2} (giuliana.mg17@gmail.com), Rosanne L. Rademaker\textsuperscript{1}; \textsuperscript{1}Ernst Strüngmann Institute for Neuroscience in Cooperation with the Max Planck Society, Frankfurt in Main, Germany, \textsuperscript{2}Department of Cognitive Neuroscience, Vrije Universiteit Amsterdam, The Netherlands

56.354 Temporal stability of human heading perception

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Oliver Layton\textsuperscript{1} (oliver.layton@colby.edu), Eli Decker\textsuperscript{1}, Mufaddal Ali\textsuperscript{1}; \textsuperscript{1}Colby College

56.355 The Effects of Environmental Structure and Texture on Perceived Travel Distance

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Ambika Bansal\textsuperscript{1} (ambikatarabansal@gmail.com), Meaghan McManus\textsuperscript{2}, Katja Fiehler\textsuperscript{2}, Laurence R. Harris\textsuperscript{1}; \textsuperscript{1}Centre for Vision Research, York University, \textsuperscript{2}Justus-Liebig University Giessen

56.356 Travel distance estimation from biological motion and optic flow

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Anna-Gesina Hülemeier\textsuperscript{1} (huelemeier@wwu.de), Markus Lappe\textsuperscript{2}; \textsuperscript{1}University of Münster

56.357 Natural scene statistics of figure-ground motion in MT receptive fields

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Clara Tenia Wang\textsuperscript{1} (cl.wang@berkeley.edu), Minqi Wang\textsuperscript{1}, Xin Huang\textsuperscript{2}, Emily A. Cooper\textsuperscript{1}; \textsuperscript{1}University of California, Berkeley, Berkeley, CA, \textsuperscript{2}University of Wisconsin-Madison, Madison, WI

56.358 Comparing Visual and Omniscient Models of Collective Crowd Motion

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

James Falandays\textsuperscript{1} (james_falandays@brown.edu), William Warren\textsuperscript{1}; \textsuperscript{1}Brown University

Perceptual Organization: Contour integration, common fate

56.359 A moving watercolor illusion

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Austin Kral\textsuperscript{1}, James Brown\textsuperscript{1}; \textsuperscript{1}University of Georgia

56.360 Contour Integration Using Boundary and Region Information

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Doreen Hii\textsuperscript{1} (doreen.hii@uci.edu), Zygmunt Pizlo\textsuperscript{1}; \textsuperscript{1}University of California, Irvine

56.361 Detecting Correlated Target Motion in Moving and Static Dot Arrays

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Bernice Rogowitz\textsuperscript{1} (bernice.e.rogowitz@gmail.com), Christophe Hurter\textsuperscript{2}; \textsuperscript{1}Visual Perspectives Research, \textsuperscript{2}ENAC, French Civil Aviation University, University of Toulouse France

56.362 Feature-selective mechanisms that underlie the perception of causality
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Sven Ohl\(^1\) (sven.ohl@hu-berlin.de), Martin Rolfs\(^2\); Humboldt-Universität zu Berlin

**56.363 Gestalt grouping vs. ensemble perception when following a crowd**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

William Warren\(^1\), Meghan Willcoxon\(^1\); Brown University, Providence, RI USA

**56.365 High Spatial Frequency Stimuli Amplify Visual Integration Deficits in Schizophrenia and Bipolar Disorder**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Yonatan Abrham\(^1\) (yabrham@ur.rochester.edu), Megan Serody\(^2\), Bart Krekelberg\(^3\), Judy Thompson\(^1\), Steven Silverstein\(^1\), Michael Cole\(^3\), Deanna Barch\(^4\), Laura Crespo\(^5\), Brian Keane\(^1\); University of Rochester, \(^2\)Stony Brook University, \(^3\)Rutgers University, Newark, \(^4\)Washington University in St. Louis, \(^5\)University of Chicago

---

**Tuesday Afternoon Posters in Pavilion**

**Object Recognition: Categories**

**56.401 Visuo-semantic clashes: What happens when objects do not look like they should?**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Inga María Ólafsdóttir\(^1,3\) (ingao@ru.is), Marelle Maeekalle\(^2,3\), Heida Maria Sigurdardottir\(^2,3\); Reykjavik University, \(^2\)University of Iceland, \(^3\)Icelandic Vision Lab

**56.402 Control of BOLD fMRI Responses Via Stimuli Generated with Voxel-Weighted Neural Network Activation Maximization**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Matthew Shinkle\(^1\) (mshinkle1040@gmail.com), Mark Lescroart\(^1\); University of Nevada, Reno

**56.403 Assessing the feasibility of high stimulus presentation rates for contrasting conditions in functional MRI studies**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Johannes Roth\(^1\), Yoichi Miyawaki\(^2\), Martin N. Hebart\(^1\); Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, \(^2\)University of Electro-Communications, Tokyo

**56.404 Category trumps shape as an organizational principle of object space in the human occipitotemporal cortex**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Elahe Yargholi\(^1\) (elahe.yargholi@kuleuven.be), Hans Op de Beeck\(^1\); KU Leuven

**56.405 Comparing Human Object Learning with Deep Neural Networks**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Yinuo Peng\(^1\), Zhen Zhu\(^1\), Derek Hoiem\(^1\), Ranxiao Frances Wang\(^1\); University of Illinois at Urbana-Champaign

**56.406 Optimizing Naturalistic Object Categorization with Diagnostic Low-Level Visual**
Information

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Yongzhen Xie¹ (yongzhen.xie@mail.utoronto.ca), Michael Mack¹; ¹Department of Psychology, University of Toronto

56.407 Temporal dynamics of stereoscopic object classification

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Zhen Li¹ (li_zhen22@qq.com), Dorita H. F. Chang¹; ¹The University of Hong Kong

56.408 The tortoise and the hare: Fast and slow learners in an object categorization task

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

James Tanaka¹ (jtanaka@uvic.ca), Kyla Basbaum¹, Amy vanWell¹, Anna Lawrance¹, Cole Tamburri¹; ¹University of Victoria, Canada

56.409 Visual adaptation to non-face animate objects elicits temporally robust high-level aftereffects

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Antonia Reindl¹ (antonia.reindl@hu-berlin.de), Gerhard Scholtz¹, Torsten Schubert²; ¹Humboldt-Universität zu Berlin, ²Martin-Luther-Universität Halle-Wittenberg

56.410 A common neural code for representing imagined and inferred tastes

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Jason Avery¹ (jason.avery@nih.gov), Madeline Carrington², Alex Martin³; ¹National Institute of Mental Health

56.411 Probing feature spaces of object categories with a drawing task

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Henning Tiedemann¹, Yaniv Morgenstern², Filipp Schmidt¹, Roland W Fleming¹; ¹University of Giessen, ²University of Leuven

56.412 The Sequential categorization identification paradigm: A New paradigm for combined inferences

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Aylin Ak¹ (aylin.ak-1@ou.edu), Michael Wenger¹, James Townsend², Sarah Newbolds¹; ¹University of Oklahoma, ²Indiana University

Object Recognition: Neural mechanisms

56.413 Spatial-frequency channels for object recognition by neural networks are twice as wide as those of humans

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Ajay Subramanian¹ (as15003@nyu.edu), Elena Sizikova¹, Najib J. Majaj¹, Denis G. Pelli¹; ¹New York University

56.414 Detectability of optogenetic stimulation in inferior temporal cortex in non-
human primates depends on the plausibility of a corresponding visual event in the external world

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Rosa Lafer-Sousa¹ (rosa.lafer-sousa@nih.gov), Elia Shahbazi¹, Karen Wang², Tyler Swedan¹, Arash Afraz¹; ¹National Institute of Mental Health, ²University of Southern California

**56.415** Neurons in macaque V4 prefer natural images to scrambled textures

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Justin D. Lieber¹ (justinlieber@nyu.edu), Timothy D. Oleskiw¹,², Eero P. Simoncelli¹,², J. Anthony Movshon¹; ¹New York University, ²Flatiron Institute

**56.416** Probing the role of bypass connections in core object recognition by chemogenetic suppression of macaque V4 neurons

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Kohitij Kar¹ (kohitij@mit.edu); ¹Department of Biology, Centre for Vision Research, York University, Toronto, Canada

**56.417** Simultaneous recordings from posterior and anterior body-responsive regions in the macaque Superior Temporal Sulcus.

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Anna Bognar¹,² (anna.bognar@kuleuven.be), Albert Mukovskiy³, Ghazal Ghamkhari Nejad¹,², Nick Taubert³, Michael Stettler³, Rajani Raman¹,², Martin Giese³, Rufin Vogels¹,²; ¹Department of Neuroscience, KU Leuven, Leuven, Belgium, ²Leuven Brain Institute, KU Leuven, Leuven, Belgium, ³HIH&CIN, Department of Cognitive Neurology, University Clinic Tübingen, Tübingen, Germany

**56.418** Adaptation to numerosity changes monotonic responses of early visual cortex

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Liangyou Zhang¹ (l.zhang6@uu.nl), Evi Hendrikx¹, Yizhen Wang², Serge O. Dumoulin¹,³,⁴,⁵, Ben M. Harvey¹; ¹Experimental Psychology, Helmholtz Institute, Utrecht University, ²School of Psychology, South China Normal University, ³Spinoza Centre for Neuroimaging, ⁴Computational Cognitive Neuroscience and Neuroimaging, Netherlands Institute for Neuroscience, ⁵Experimental and Applied Psychology, Vrije University Amsterdam

**56.419** Color and Shape Contingency Representations in Rhesus Macaques

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Spencer Loggia¹ (spencer.loggia@nih.gov), Stuart Duffield¹, Kurt Braunlich¹,², James Cavanaugh¹, Bevil Conway¹; ¹National Eye Institute, ²National Institute of Mental Health

**56.420** Recurrent processing in the visual cortex during object recognition

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Timothée Maniquet¹,²,³ (tim.maniquet@kuleuven.be), Andrea Costantino¹,², Hans Op de Beeck¹,²; ¹KU Leuven, ²Leuven Brain Institute, ³Research Foundation – Flanders

**56.421** The effects of visual backward masking on visual spatiotemporal dynamics

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*
Siyung Xie (siying.xie@outlook.com), Daniel Kaiser, Johannes Singer, Radoslaw Cichy; Freie Universität Berlin, Justus-Liebig-Universität Gießen, Center for Mind, Brain and Behavior (CMBB), Philipps-Universität Marburg and Justus-Liebig-Universität Gießen, Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Einstein Center for Neurosciences Berlin, Charité-Universitätsmedizin Berlin, Bernstein Center for Computational Neuroscience Berlin, Humboldt-Universität zu Berlin

56.422 Changes in the speed of visual processing between foveola and perifovea: a combined behavioral and EEG investigation
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Martina Poletti (martina_poletti@urmc.rochester.edu), Samantha K. Jenks, Alessandro Benedetto; University of Rochester

56.423 Lesioning category-selective units in silico yields functionally specialized deficits
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Jacob S. Prince (jacob.samuel.prince@gmail.com), George A. Alvarez, Talia Konkle; Harvard University

56.424 Evaluating the Central-Peripheral Dichotomy in human visual cortex using anatomical and retinotopic data in Human Connectome Project
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Li Zhaoping (li.zhaoping@tuebingen.mpg.de); University of Tuebingen, Max Planck Institute for Biological Cybernetics

56.425 Brain-optimized models reveal increase in few-shot concept learning accuracy across human visual cortex
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Ghislain St-Yves, Kendrick Kay, Thomas Naselaris; University of Minnesota

Face Perception: Wholes, parts, configurations, and features

56.426 Faces Are Not Processed Holistically in Ensemble Judgments
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Isabel Gauthier (isabel.gauthier@vanderbilt.edu), Oakyoon Cha; Vanderbilt University, Sungshin Women’s University, Seoul, South Korea

56.427 Two faces of holistic face processing: Facilitation and interference underlying holistic processing paradigms
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Haiyang Jin (haiyang.jin@nyu.edu), William G. Hayward, Olivia S. Cheung; Department of Psychology, New York University Abu Dhabi, Department of Applied Psychology, Lingnan University

56.428 A novel framework to study configural and holistic processing
Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Yuxuan Zeng (zeng.774@osu.edu), Ren E Hentz, David E Osher; The Ohio State University
**56.429** Mouth-specific distortions: Evidence from prosopometamorphopsia for independent representations of individual facial features  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Alexis Kidder¹,², Brad Duchaine¹; ¹Dartmouth College, ²NIMH

**56.430** The Overestimation Effect in Gaze Perception Reduces with Distance  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Gernot Horstmann¹ (gernot.horstmann@uni-bielefeld.de), Linda Linke¹; ¹Bielefeld University

**56.431** Does perceptual integration efficiency predict face identification skills?  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Laurianne Côté¹, Pierre-Louis Audette¹, Caroline Blais¹, Francis Gingras¹, Justin Duncan¹, Daniel Fiset¹; ¹Université du Québec en Outaouais

**56.432** Face recognition ability is correlated with strength of cortical tuning to high-level identity features in natural faces  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Barbora Jurigova¹, Susan Hao¹, Alex Huth², Brad Duchaine³, Ivan Alvarez¹, Sonia Bishop¹,⁴; ¹University of California Berkeley, ²The University of Texas at Austin, ³Dartmouth College, ⁴Trinity College Dublin

**56.433** The impact of eyeglasses on face identity perception  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Hillary Nguyen¹, Marvin Chun¹, Yaoda Xu¹; ¹Yale University

**56.434** Colour information biases facial age estimation and reduces inter-observer variability  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Jean hsieh¹ (jeanyjhsieh@gmail.com), Paul Boyce, Erin Goggard, Colin Clifford; ¹The University of New South Wales

**56.435** Illusory Conjunction in Faces  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Herrick Fung¹ (herrickfung@gmail.com), Janet H. Hsiao¹, William G. Hayward²; ¹Department of Psychology, The University of Hong Kong, ²Department of Applied Psychology, Lingnan University

**56.436** Configural selectivity for faces in IT cortex is experience-dependent  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Akshay V Jagadeesh¹, Margaret S Livingstone¹; ¹Harvard Medical School

**56.438** Face information used to classify identity depends on emotional expression and vice-versa  
*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*  
Emily Martin¹ (emart459@fiu.edu), Jason Hays¹, Fabian Soto¹; ¹Florida International University
**56.439** Does the face say it all? Examining face and body integration in whole-person perception.

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Katelyn Forner¹ (katelynforner13@gmail.com), Isabella Schopper¹, Amy vanWell¹, James Tanaka¹; ¹University of Victoria

**Face Perception: Development and disorders**

**56.440** Can face recognition/recollection in developmental prosopagnosia really be improved? Evidence from a repetition-lag training paradigm

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Leah Kirsch¹,², Regan Fry¹,², Mieke Verfaellie³,⁴, Nicole Anderson⁵, Joseph DeGutis¹,²; ¹Department of Psychiatry, Harvard Medical School, Boston MA, ²Boston Attention and Learning Lab, Boston VA Healthcare System, Boston, MA, ³Memory Disorders Research Center, Boston VA Healthcare Systems, Boston MA, ⁴Department of Psychiatry, Boston University School of Medicine, Boston MA, ⁵Departments of Psychology and Psychiatry, University of Toronto, ON, Canada

**56.441** Accounting for speed-accuracy trade-offs in developmental prosopagnosia

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Judith Lowes¹ (judith.lowes@stir.ac.uk), Peter J.B. Hancock¹, Anna K. Bobak¹; ¹University of Stirling, Stirling, United Kingdom

**56.442** Fine-grained face race processing in prosopagnosia

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Pauline Schaller¹ (pauline.schaller@unifr.ch), Peter de Lissa¹, Justin Duncan², Anne-Raphaëlle Richoz¹, Roberto Caldara¹; ¹University of Fribourg, ²Université du Québec en Outaouais

**56.443** Putting Memory back into Face Recognition: Aspects of Face Recollection Contribute to Deficits in Developmental Prosopagnosia

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Tanvi Palsamudram¹,² (tanvi.palsamudram@gmail.com), Bar Yosef, Alison Campbell¹,², Regan Fry¹,², Mieke Verfaellie³,⁴, Nicole Anderson⁵, Joseph DeGutis¹,²; ¹Department of Psychiatry, Harvard Medical School, Boston MA, ²Boston Attention and Learning Laboratory, Boston VA Healthcare Systems, Boston MA, ³Memory Disorders Research Center, Boston VA Healthcare Systems, Boston MA, ⁴Department of Psychiatry, Boston University School of Medicine, Boston MA, ⁵Departments of Psychology and Psychiatry, University of Toronto, ON, Canada

**56.444** Quantifying dynamic facial expression recognition thresholds in prosopagnosia

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Fanny Poncet¹, Lisa Stacchi¹, Anne-Raphaëlle Richoz¹, Roberto Caldara¹; ¹University of Fribourg

**56.445** Prosopagnosia elicits atypical fixation patterns during dynamic facial expression recognition

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*
Lisa Stacchi, Anne-Raphaëlle Richoz, Nayla Sokhn, Roberto Caldara; University of Fribourg

56.446 Semantic encoding improves face recognition in prosopagnosia

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Yuval Navon¹, Linoy Schwartz², Yiyuan Zhang³, Brad Duchaine³, Galit Yovel¹; ¹Tel Aviv University, ²Reichman University, ³Dartmouth College

56.447 Exploring facial expression recognition in Parkinson’s

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Maille Gracey¹ (mfg056@student.bham.ac.uk), Connor Keating¹, Sophie Sowden¹, Jennifer Cook¹; ¹University of Birmingham

56.448 Pose dependent face recognition in autism spectrum disorder

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Todd Kamensek¹,²,³ (todd.kamensek@ubc.ca), Anastasia Stolzenberg¹,², Grace Iarocci³, Ipek Oruc¹,⁴; ¹Neuroscience, University of British Columbia, ²Department of Psychology, University of British Columbia, ³Department of Psychology, Simon Fraser University, ⁴Department of Ophthalmology and Visual Sciences, University of British Columbia

56.449 Leveraging computational and animal models of vision to probe atypical emotion recognition in autism

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Hamidreza Ramezanpour¹ (hamidram@yorku.ca), Kohitij Kar¹; ¹Department of Biology, Centre for Vision Research, York University, Toronto, Canada

56.450 Facial Emotion Recognition in People with Differing Levels of Eating Disorder Symptoms

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Ilya Nudnou¹ (ilya.nudnou@ndsu.edu), Katherine Duggan¹, Lauren Schaefer², Benjamin Balas¹; ¹North Dakota State University, ²Sanford Center for Biobehavioral Research

56.451 Anxious youth and adults share threat-biased interpretations of visual and linguistic ambiguity

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Delaney McDonagh¹, Michelle Rozenman¹, Timothy Sweeney¹, Emily Jones¹, Anni Subar¹; ¹University of Denver

Face Perception: Social cognition

56.452 A NETWORK OF REGIONS IN THE HUMAN BRAIN INVOLVED IN PROCESSING FAMILIARITY

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Kira Noad¹ (kira.noad@york.ac.uk), David Watson¹, Timothy Andrews¹; ¹University of York

56.453 Electrophysiological evidence that own-race faces are recognized more automatically
**56.454 Both Purely Visual and Simulation-based Models Uniquely Explain Human Social Interaction Judgements**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Chloé Galinier¹ (galc13@uqo.ca), Justin Duncan¹, Caroline Blais¹, Daniel Fiset¹; ¹Université du Québec en Outaouais

**56.455 General architectural and learning constraints produce visual features sensitive to facing dyads**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Manasi Malik¹ (mmalik16@jhu.edu), Leyla Isik¹; ¹Johns Hopkins University

**56.456 Does face recognition correlate with narcissism? A replication.**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Daniel Janini¹ (janinidp@gmail.com), Talia Konkle; ¹Harvard University

**56.457 Religious labels and food preferences, but not country of origin, support opposing aftereffects on the basis of religion**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Gabriella Romero-Ayala¹, Zane Kingsbury², Marin Foss³, Kellie Schmidt⁴, Sherryse Corrow⁵; ¹Bethel University

**56.458 Inferential tracking reveals context is more informative than faces in judgments of trustworthiness.**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Yifan Fang¹ (yfang2024@berkeley.edu), Jefferson Ortega¹, Necdet Gürkan², Jordan W. Suchow², David Whitney¹; ¹University of California, Berkeley, ²Stevens Institute of Technology

**56.459 Lateralization of dynamic social interaction perception**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Hannah Small¹ (hsmall2@jhu.edu), Leyla Isik¹; ¹Johns Hopkins University

**56.460 New task - new results? How the area of direct gaze is influenced by the method of measurement**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Linda Linke¹, Gernot Horstmann¹; ¹Bielefeld University

**56.461 How we can use the eyes to understand human interaction**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Wee Kiat Lau¹ (wee.lau@uni-ulm.de), Marian Sauter², Lisa Valentina Eberhardt³, Anke Huckauf⁴; ¹Ulm University

**56.462 Viewing images with closed eyes diminishes implied social presence**

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion
Wednesday Morning Posters in Banyan Breezeway

### Temporal Processing: Neural mechanisms and models

#### 63.301 Perceptual sensitivity depends on the contrast of preceding and following stimuli across hundreds of milliseconds

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michael Epstein¹ (mlepstein88@gmail.com), Rachel Denison¹; ¹Boston University

#### 63.302 Aperiodic and Periodic EEG predict performance in a double-flash fusion task

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michele Deodato¹ (md5050@nyu.edu), David Melcher¹; ¹New York University Abu Dhabi

#### 63.303 Relationship between steady-state responses in simultaneously acquired LFP and EEG

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dixit Sharma¹ (ds1663@rutgers.edu), Bart Krekelberg¹; ¹Rutgers University - Newark

#### 63.304 Gain Changes in Response to Full Field Flicker

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Bart Krekelberg¹ (bart@vision.rutgers.edu), Alexander Schielke²; ¹Rutgers University - Newark

#### 63.305 Event probabilities tend to scale inversely with neural measures of prediction error, but positively with measures of time perception

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
63.06 Cortical quantity representations of visual numerosity and timing overlap increasingly but remain distinct

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Evi Hendrikx¹ (e.h.h.hendrikx@uu.nl), Jacob M. Paul², Martijn van Ackooij¹, Nathan van der Stoop¹, Ben M. Harvey¹; ¹Utrecht University, ²University of Melbourne

63.07 An experimental and theoretical study of the critical fusion frequency as a function of stimulus duty ratio

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Kotaro Oikawa¹, Ruggero Micheletto¹; ¹Yokohama City University

63.08 Event-related Potentials Associated with Inhibitory Processes of Forward Masking

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Hulusi Kafaligonul¹,² (hulusi@bilkent.edu.tr), Afife Turker¹,²; ¹Interdisciplinary Neuroscience Program, Aysel Sabuncu Brain Research Center, Bilkent University, ²National Magnetic Resonance Research Center, Bilkent University

63.09 Seeing fast and slow: systematic state and trait variations in visual temporal acuity

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

David Melcher¹ (david.melcher@nyu.edu), Gaia Lapomarda¹, Michele Deodato¹; ¹New York University Abu Dhabi

63.10 Evidence for a second rod pathway in the human retina with a cone-like spectral sensitivity

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Christopher Tyler¹ (cwt@ski.org), Russell Hamer², Michael Liang¹, Zhangziyi Zhou¹, Lora Likova¹; ¹Smith-Kettlewell Eye Research Institute, ²Florida Atlantic University

63.11 Is temporal crowding mediated by averaging across time?

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ilanit Hochmitz¹ (ilani57@gmail.com), Yaffa Yeshurun; ¹University of Haifa

63.12 Temporal sensitivity in the central fovea

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ruitao Lin¹,² (rlin18@ur.rochester.edu), Alessandro Benedetto¹,², Janis Intoy¹,², Benjamin Moon²,³, Ashley M. Clark¹,², Samantha K. Jenks¹,², Sanjana Kapisthalam¹,², Martina Poletti¹,², Michele Rucci¹,²; ¹Department of Brain and Cognitive Sciences, University of Rochester, NY, USA, ²Center for Visual Science, University of Rochester, NY, USA, ³The Institute of Optics, University of Rochester, NY, USA

63.13 Segmenting the magnocellular regions in the human lateral and medial geniculate nuclei using quantitative MRI

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Object Recognition: Features and parts

63.314 Temporal-spatial configuration of musical notation: Distinguishing visual and conceptual influences on expert and novice performance

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Niels J. Verosky¹ (niels.verosky@nyu.edu), Olivia S. Cheung; ¹New York University Abu Dhabi

63.315 Perception of retinal images: Can artificial intelligence help us discover new diagnostic features?

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Lei Yuan¹ (cyuan26@student.ubc.ca), Gulcenur Ozturan¹, Ipek Oruc¹; ¹University of British Columbia

63.316 Revisiting the animacy, size, and curvature organization of human visual cortex

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Laura M. Stoinski¹, Oliver Contier¹,², Talia Konkle³, Martin N. Hebart⁴; ¹MPI Human Cognitive & Brain Sciences, Leipzig, Germany, ²Max Planck School of Cognition, Max Planck Institute for Human Cognitive & Brain Sciences, Leipzig, Germany, ³Department of Psychology & Center for Brain Science, Harvard University, Cambridge, Massachusetts, ⁴Department of Medicine, Justus Liebig University, Giessen, Germany

63.317 Different tasks performed on same objects result in functionally distinct activation of LOTC and IPS

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Arnab Biswas¹ (arnab@nevada.unr.edu), Mark D. Lescroart; ¹University of Nevada, Reno

63.318 Functional contributions of the dorsal pathway to shape perception: Evidence from intracranial recording

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Max Kramer¹ (mkramer@mkramerpsych.com), Vladislav Ayzenberg¹, Zhengjia Wang², Christina Patterson³, Marlene Behrmann¹,⁴; ¹Department of Psychology, Carnegie Mellon University, ²Department of Neurosurgery, Perelman School of Medicine, University of Pennsylvania, ³Department of Pediatrics, University of Pittsburgh, ⁴Department of Ophthalmology, University of Pittsburgh

63.319 The impact of culture on the processing of spatial frequencies during the recognition of homogenous objects

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Alexandre Cousineau¹ (alex.cousineau@outlook.com), Francis Gingras¹,², Daniel Fiset¹, Caroline Blais¹; ¹Université du Québec en Outaouais, ²Université du Québec à Montréal

63.320 The Signal and the Noise: Optimizing the Reverse Correlation Technique via Noise Selection

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gennadiy Gurariy¹ (ggurariy@mcw.edu), Ethan Duwell¹, Adam Greenberg¹; ¹Medical College of Wisconsin
63.321 The spatiotemporal neural dynamics of Braille letter representations in individuals with congenital blindness

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marleen Haupt¹, Monika Graumann¹, Santani Teng², Radoslaw Cichy¹; ¹Freie Universität Berlin, Germany, ²Smith-Kettlewell Eye Research Institute, San Francisco, USA

63.322 Uncovering the hidden computations of deep neural networks by tracing the trajectory manifold from images to feature activations

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christopher Hamblin¹ (chrishamblin@fas.harvard.edu), Talia Konkle¹, George Alvarez¹; ¹Harvard University

63.323 Unsupervised feature selection methods for modeling human similarity judgments with deep neural networks

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nhut Truong¹ (leminhnhut.truong@unitn.it), Anna Bavaresco¹, Uri Hasson¹; ¹Center for Mind/Brain Sciences (CIMeC), University of Trento

63.324 Which fragments support object recognition best?

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elsa Scialom¹ (elsa.scialom@epfl.ch), Udo A. Ernst², David Rotermund², Michael H. Herzog¹; ¹Ecole Polytechnique Fédérale de Lausanne (EPFL), ²University of Bremen, Bremen, Germany

63.325 Delayed foveal noise affects performance in a vernier offset discrimination task

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Martina Morea¹ (martina.morea@epfl.ch), Roberta Cessa², Michael Herzog¹, Marco Bertamini³; ¹Laboratory of Psychophysics, Brain Mind Institute, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland., ²Department of General Psychology, University of Padova, Padova, Italy., ³Department of Psychology, University of Liverpool, Liverpool, UK.

63.326 Effect of Radial Frequency and Amplitude on Target Detection

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Samuel Smithers¹ (s.smithers@northeastern.edu), Wei Hau Lew², Yulong Shao¹, Daniel Coates², Peter Bex¹; ¹Northeastern University, ²University of Houston

**Visual Memory: Capacity, encoding, retrieval**

63.327 Image memorability modulates image recognition, but not image localization in space and time

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nathan Trinkl¹, Jeremy M. Wolfe¹,²; ¹Brigham and Women’s Hospital, ²Harvard Medical School

63.328 Modestly related memories for when and where an object was seen in a Massive Memory paradigm.

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
63.329 No Icon in "Iconic" Memory: Short Retention Intervals Benefit Simple Visual Features But Not Complex Objects

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Mary Catington 1 (mfc120@msstate.edu), Michael Pratte 1; 1Mississippi State University

63.330 Confidence in reality monitoring judgments.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Saurabh Ranjan 1 (saurabh.ranjan@ufl.edu), Jessica Baltes 1, Adyssa Roh 1, Brian Odegaard 1; 1University of Florida

63.331 Global Mean Position Perception of Multiple Spatially-Separated Ensembles

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Yang Wang 1 (wangy0802@hotmail.com), Edward Vul 1, Timothy Brady 1; 1University of California, San Diego

63.332 People remember face pareidolia more than human face images during naturalistic encoding

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Olga Kreichman 1,2 (oplaksin88@gmail.com), Limor Brook 1,2, Susan Wardle 3, Sharon Gilai-Dotan 1,2,4; 1School of Optometry and Vision Science, Bar Ilan University, Israel, 2The Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Israel, 3National Institute of Mental Health, 4UCL Institute of Cognitive Neuroscience, London, UK

63.333 Symbol superiority: Why $ is better remembered than ‘dollar’

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Brady Roberts 1, Colin MacLeod 1, Myra Fernandes 1; 1University of Waterloo

63.334 Color priming facilitates cued location recall in a visuospatial short-term memory partial report paradigm

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Tanner Lumpkin 1 (tllump9771@ung.edu), Courtney Nutt 2, Patsy Folds 3, Ralph Hale 4; 1University of North Georgia

63.335 Exploring the impact of a constructive encoding task on visual recognition memory

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

William P. McCarthy 1, Judith E. Fan 2; 1UC San Diego, Department of Cognitive Science, 2UC San Diego, Department of Psychology

63.336 Mixed Graph Designs Do Not Improve Visual Memory

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Madeline F. Awad 1 (madelineawad2025@u.northwestern.edu), Kylie Lin 1, Steven L. Franconeri 1; 1Northwestern University

63.337 Quantifying the Temporal Dynamics of Memorability Across the Creation of Art

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

William P. McCarthy 1, Judith E. Fan 2; 1UC San Diego, Department of Cognitive Science, 2UC San Diego, Department of Psychology
**Spatial Vision: Texture**

**63.338** Visual similarity structure a priori predicts memory errors for novel high-dimensional face stimuli

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Trent M. Davis¹ (trentdavis@uchicago.edu), Wilma A. Bainbridge¹; ¹University of Chicago

**63.339** When is it helpful to forget? Comparing the effects of forgetting on visual and auditory perceptual decisions

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Timothy Brady¹ (timothy.brady@gmail.com), Maria Robinson¹; ¹University of California, San Diego

**63.340** The effects of symmetry on visual ensemble perception

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jaeun LEE¹ (jaeun@pusan.ac.kr), Sung Jun Joo¹; ¹Pusan National University

**63.341** Texture difference cues in figure–ground separation

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jonathan Victor¹ (jdvicto@med.cornell.edu), Mary Conte¹; ¹Weill Cornell Medical College

**63.342** Second-order boundaries segment more easily when density-defined rather than feature-defined

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christopher DiMattina¹ (cdimattina@fgcu.edu); ¹Department of Psychology, Florida Gulf Coast University

**63.343** Contextual interactions between orientation- and contrast-modulated textures in the tilt induction

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elena Gheorghiu¹ (elena.gheorghiu@stir.ac.uk), Rui Tang², Frederick A.A. Kingdom²; ¹University of Stirling, United Kingdom, ²McGill University, Canada

**63.344** Surround induction with orientation modulated textures

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Amenabhwon Natasha Thomas¹, Elena Gheorghiu², Selin Eriz¹, Frederick Kingdom¹; ¹McGill University, ²University of Stirling

**63.345** When Summary Statistics Clash: Competing summary statistics modulate the attentional prioritization of ensemble representations

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kristina Knox¹ (kristina.knox@mail.utoronto.ca), Jay Pratt¹, Jonathan S. Cant²; ¹University of Toronto, ²University of Toronto Scarborough
The cost of forming statistical summary representations across multiple spatial scales

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sandalash Pandey¹ (sandalashpand@umass.edu), Kyle Cave¹; ¹UMass Amherst

**Visual Search: Attention**

Super-additive associative learning benefit for repeated task-relevant and task-irrelevant elements in visual search

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Emma M. Siritzky¹ (esiritzky@gwu.edu), Samoni Nag¹, Chloe Callahan-Flintoft², Stephen R. Mitroff¹, Dwight J. Kravitz²; ¹The George Washington University, Department of Psychological and Brain Sciences, ²U.S. Army Research Laboratory

Activation of multiple attentional templates in conjunction search

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ziyi Wang¹ (ziyi.wang5@durham.ac.uk), Martin Eimer², Anna Grubert¹; ¹Durham University, ²Birkbeck, University of London

Does visual distinctiveness from an unexpected feature dimension facilitate search?

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zoe (Jing) Xu¹ (jingxu9@illinois.edu), Alejandro Lleras¹, John E. Hummel¹, Simona Buetti¹; ¹University of Illinois, Urbana Champaign

Using regularity-based temporal predictions to shift our attentional template across time during multiple-target dynamic visual search

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gwenlliian C. Williams¹,²,³ (gwenlliian.williams@psy.ox.ac.uk), Sage E. P. Boettcher¹,²,³, Anna C. Nobre¹,²,³; ¹Department of Experimental Psychology, University of Oxford, ²Wellcome Centre for Integrative Neuroimaging, University of Oxford, ³Oxford Centre for Human Brain Activity, University of Oxford

Shifting target representations away from distractor features is task-adapative

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xinger Yu¹ (xeyu@ucdavis.edu), Raisa Rahim¹, Joy Geng¹,²; ¹Center for Mind and Brain, University of California, Davis, ²Department of Psychology, University of California, Davis

Contextual cueing effects of various targets in the same context

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jeunghwan Choi¹ (abcdef0518@naver.com), Sang Chul Chong¹,²; ¹Graduate Program in Cognitive Science, Yonsei University, ²Department of Psychology, Yonsei University

Enhancement and suppression of category exemplars

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*
Y. Isabella Lim (isabella.lim@mail.utoronto.ca), Jay Pratt; University of Toronto

63.354 Joint contributions of instruction and preview on visual search strategy
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Tianyu Zhang (zhang.11476@osu.edu), Andrew B. Leber; The Ohio State University

63.355 The limitations of categorical distractor suppression
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Jessica N. Goetz (jngoetz@knights.ucf.edu), Mark B. Neider; University of Central Florida

63.356 To Feedback or Not to Feedback? That is the Question When Attempting to Improve the Low Prevalence Effect Using Probes Trials
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Andrew Rodriguez (rodi818@msu.edu), Derrek T. Montalvo, Mark W. Becker; Michigan State University

63.357 Attentional differences predict ensemble coding and are moderated by probe effects
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Laramie Starling (ls@usf.edu), Chad Dubé; University of South Florida

63.358 Statistical Learning and Attentional Priority
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Aidai Golan, Dominique Lamy; Tel Aviv University

Visual Search: Strategies, efficiencies

63.359 Not so rapid: Dominant-looking faces elicit deliberate but not efficient search
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Shujuan Ye (yeshj5@mail2.sysu.edu.cn), Ke Wu, Xiayun Lin, Xiaowei Ding; Sun Yat-sen University

63.360 Search efficiency scales with semantic relatedness in audiovisual contexts
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Kira Wegner-Clemens, George Malcolm, Sarah Shomstein; George Washington University, University of East Anglia

63.361 Visual detection of threat and rapid decisions to "shoot": Can mindfulness-based meditation practices improve signal detection accuracy and reduce implicit racial bias?
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
David Peterzell (davidpeterzell@mac.com); Fielding Graduate University, National University (JFK)

63.362 Modeling Observer Search Termination in a Subsequent Search Misses (SSM) Experimental Framework: The Role of Experience.
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway
Nelson Roque\textsuperscript{1} (nelson.roque@ucf.edu), Stephen Adamo\textsuperscript{2}; \textsuperscript{1}University of Central Florida

\textbf{63.363 The effects of blur adaptation on visual search performance}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Idris Shareef\textsuperscript{1} (ishareef@unr.edu), Nasif Zaman\textsuperscript{2}, Alireza Tavakkoli\textsuperscript{2}, Fang Jiang\textsuperscript{1}; \textsuperscript{1}Department of Psychology, University of Nevada, Reno, USA, \textsuperscript{2}Department of Computer Science and Engineering, University of Nevada, Reno, USA

\textbf{63.364 The FORAGEKID Game: Using Hybrid Foraging to Study Executive Functions and Search Strategies During Development}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Beatriz Gil-Gómez de Liaño\textsuperscript{1} (bgil.gomezdelianno@uam.es), Jeremy M Wolfe\textsuperscript{2}; \textsuperscript{1}Universidad Autónoma de Madrid, \textsuperscript{2}BWH-Harvard Medical School

\textbf{63.365 Close, but not a T: Feedback, not similarity search, reduces the low-prevalence effect}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Greer Gillies\textsuperscript{1} (greer.gillies@mail.utoronto.ca), Benjamin Wolfe\textsuperscript{2}, Anna Kosovicheva; \textsuperscript{1}University of Toronto, \textsuperscript{2}University of Toronto, Mississauga

\textbf{63.366 Emotion recognition, not attentional capture, drives visual search asymmetries to emotional expressions}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Sjoerd Stuit\textsuperscript{1} (s.m.stuit@uu.nl), Alejandra Pardo Sanchez\textsuperscript{2}, David Terburg\textsuperscript{1}; \textsuperscript{1}Utrecht University, \textsuperscript{2}University College Utrecht

\textbf{63.367 Multidimensional templates: Explicit goals unlock implicit spatial statistical learning}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Nancy Carlisle\textsuperscript{1} (nancy.carlisle@gmail.com), Ziyao Zhang\textsuperscript{2}; \textsuperscript{1}Lehigh University, \textsuperscript{2}UT Austin

\textbf{63.368 Individual differences in patch leaving strategy in visual foraging tasks}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Walden Li\textsuperscript{1} (li.6942@osu.edu), Mackenzie Siesel\textsuperscript{1}, Andrew Leber\textsuperscript{1}; \textsuperscript{1}The Ohio State University

\textbf{63.369 Why are some individuals better in using negative templates to suppress distractors? Exploration of the inter-individual differences in proactive control efficiency}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Matthieu Chidharom\textsuperscript{1} (maca21@lehigh.edu), Nancy Carlisle\textsuperscript{1}; \textsuperscript{1}Lehigh University

\textbf{63.370 Category Variability Provides Challenges to Learning and Search Performance}

\textit{Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway}

Paean Luby\textsuperscript{1} (paean.luby@richmond.edu), Arryn Robbins\textsuperscript{1}; \textsuperscript{1}University of Richmond
Wednesday Morning Posters in Pavilion

Perception and Action: Perception of Human Actions and Bodies

**63.401  The role of action-related properties in shaping the object space in the biological and artificial brain**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Davide Cortinovis¹ (davide.cortinovis@unitn.it), Hans Op de Beeck², Stefania Bracci¹; ¹Center for Mind/Brain Sciences - CIMeC, University of Trento, Italy, ²Laboratory of Neuro- and Psychophysiology, Department of Neurosciences, KU Leuven, Belgium

**63.402  Individual variability in sensorimotor mu suppression to observation of human actions**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Alison Harris¹ (aharris@cmc.edu), Perri McElvain¹, Alvin Villarosa¹, Chandlyr Denaro¹, Catherine L. Reed¹; ¹Claremont McKenna College

**63.403  Force representations support social perception of moving shapes**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Yiling Yun¹ (yiling.yun@g.ucla.edu), Shuhao Fu¹, Yi-Chia Chen¹, Hongjing Lu¹; ¹University of California, Los Angeles

**63.404  Shared and individual thresholds for social signal detection**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Rekha S. Varrier¹ (rekha.s.varrier@dartmouth.edu), Alison H. Sasaki¹, Tory G. Benson¹, Ashna J. Kumar¹, Jordan M. Selesnick¹, Emily S. Finn¹; ¹Dartmouth College

**63.405  Semantic representations of human actions across vision and language**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Diana C Dima¹ (ddima@uwo.ca), Jody Culham¹, Yalda Mohsenzadeh¹; ¹Western University

**63.406  Virtual reality protocol for decomposing complex behaviour into tractable subcomponents.**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Levi Kumle¹,², Anna C. Nobre¹,², Melissa Vo³, Dejan Draschkow¹,²; ¹Department of Experimental Psychology, University of Oxford, Oxford, UK, ²Oxford Centre for Human Brain Activity, Wellcome Centre for Integrative Neuroimaging, University of Oxford, UK, ³Department of Psychology, Scene Grammar Lab, Goethe University Frankfurt, Germany

**63.407  Neurodynamical model for IT responses during the anorthoscopic perception of bodies**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Martin A. Giese¹ (martin.giese@uni-tuebingen.de), Anna Bognar², Rufin Vogels²; ¹Hertie Institute / CIN, University
The roles of kinematics and posture in yoga expertise identification

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Sophia Baia\textsuperscript{1,2} (srbaia@asu.edu), Akila Kadambi\textsuperscript{2}, Hongjing Lu\textsuperscript{2}; 1Arizona State University, 2University of California, Los Angeles

The visual dorsal stream processes tool-use actions regardless of body part even in people born without hands

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Florence Martinez Addiego\textsuperscript{1} (fam53@georgetown.edu), Yuqi Liu\textsuperscript{1,2}, Caroline O’Brien\textsuperscript{1}, Sriparna Sen\textsuperscript{1}, Nanak Nihal Khalsa\textsuperscript{1}, Maximilian Riesenhuber\textsuperscript{1}, Jody Culham\textsuperscript{3,4}, Ella Striem-Amit\textsuperscript{1}; 1Georgetown University Medical Center, 2Institute of Neuroscience, Key Laboratory of Primate Neurobiology, CAS Center for Excellence in Brain Sciences and Intelligence Technology, Chinese Academy of Sciences, 3Department of Psychology, University of Western Ontario, 4Brain and Mind at Western, Western Interdisciplinary Research Building, University of Western Ontario

Prior Knowledge Biases the Perception of Body Postures

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Qiu Han\textsuperscript{1} (hanqiuishere@gmail.com), Marco Gandolfo\textsuperscript{1}, Marius Peelen\textsuperscript{1}; 1Donders Institute for Brain, Cognition and Behaviour, Radboud University, 6525 HR, Nijmegen, The Netherlands

Identification and relative depth estimation in natural images of single human body parts

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Jiaqi Liu\textsuperscript{1}, Daniel Kersten\textsuperscript{1}; 1University of Minnesota Twin Cities

Identification of ambiguous human body parts depends on pair-wise structural knowledge in natural images

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Ziwei Liu\textsuperscript{1} (liu00964@umn.edu), Daniel Kersten\textsuperscript{1}; 1University of Minnesota

fROI-level computational models enable broad-scale experimental testing and expose key divergences between models and brains

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Elizabeth Mieczkowski\textsuperscript{1} (emiez@mit.edu), Alex Abate\textsuperscript{1}, William De Faria\textsuperscript{1}, Kirsten Lydic\textsuperscript{1}, James DiCarlo\textsuperscript{1,2,3}, Nancy Kanwisher\textsuperscript{1,2,3}, N. Apurva Ratan Murty\textsuperscript{1,2,3}; 1Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, 2Center for Brains, Minds and Machines, Massachusetts Institute of Technology, 3McGovern Institute for Brain Research, Massachusetts Institute of Technology

Perceots of biological motion disappear in slow-moving displays: Evidence for domain-specific agent perception

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Merve Erdogan\textsuperscript{1} (merve.erdogan@yale.edu), Nikolaus Troje\textsuperscript{2}, Brian Scholl\textsuperscript{1}; 1Yale University, 2York University

Human see, human do? Viewing tool pictures evokes action-specific activity in
visual hand-selective occipitotemporal cortex

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Annie Warman¹ (a.warman@uea.ac.uk), Diana Tonin¹, Fraser Smith¹, Ethan Knights¹, Stéphanie Rossit¹; ¹University of East Anglia, UK

63.417 Computing a unique neural fingerprint of bodily expressions and actions

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Vojtech Smekal¹ (v.smekal@maastrichtuniversity.nl), Marta Poyo Solanas¹, Beatrice de Gelder¹; ¹Maastricht University

Eye Movements: Fixation

63.418 Occluding one eye during fixation increases wandering of both eyes

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Scott N.J. Watamaniuk¹,² (scott.watamaniuk@wright.edu), Stephen J. Heinen², Devashish Singh², Arvind Chandna²; ¹Wright State University, ²The Smith-Kettlewell Eye Research Institute

63.419 Fixational instability impedes visually-guided behaviors in patients with amblyopia

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Sunwoo Kwon¹ (kwsunwoo@berkeley.edu), Dennis Levi¹,²; ¹Herbert Wertheim School of Optometry & Vision Science, UC Berkeley, ²Helen Wills Neuroscience Institute

63.420 Systematic variation of fixational eye movements with degree of myopia.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Michele A. Cox¹, Ashley M. Clark¹, Janis Intoy¹, Benjamin Moon¹, Ruei-Jr Wu¹, Jonathan D. Victor², Michele Rucci¹; ¹University of Rochester, ²Weill Cornell Medical College

63.421 The effect of fixational eye movements on the flicker-defined edge detection

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Seonggyu Choe¹ (sgchoe@unist.ac.kr), Chang-Yeong Han¹, Hyosun Kim², Oh-Sang Kwon¹; ¹Ulsan National Institute of Science and Technology, ²Samsung Display R & D Center

63.422 Dynamical modeling of interindividual differences in fixational drift and microsaccades

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Lisa Schwetlick¹ (lisa.schwetlick@uni-potsdam.de), Ralf Engbert¹; ¹University of Potsdam

63.423 Dilation can minimize pupil-induced fixational drift.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Kevin Willeford¹ (kwillefo@nova.edu), Victoria Georges²; ¹NOVA Southeastern College of Optometry

63.424 Microsaccades in head-free high-acuity tasks

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
63.425  A model comprising independent control and conjugacy explains miniature fixation eye movements

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Stephen Heinen¹ (heinen@ski.org), Arvind Chandna¹, Devashish Singh¹, Scott Watamaniuk¹,²; ¹Smith-Kettlewell Eye Research Institute, ²Wright State University, Department of Psychology

63.426  Different levels of awareness for spontaneous, involuntary, and voluntary microsaccades

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jan-Nikolas Klanke¹,² (jan-nikolas.klanke@hu-berlin.de), Sven Ohl¹, Martin Rolfs¹,²; ¹Humboldt-Universität zu Berlin, ²Berliner School of Mind and Brain

63.427  Eye torsion induced by a tilted image is larger during free viewing than fixation

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jorge Otero-Millan¹,² (jom@berkeley.edu), Stephanie Reeves¹; ¹University of California, Berkeley, ²Johns Hopkins University

Eye Movements: Attention, cognition, neural processes

63.428  Mr. Chips Jr.: A transformer-based computational model to study eye movements during reading

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

MiYoung Kwon¹ (miyoungkwon02@gmail.com), Alish Dipani¹; ¹Northeastern University

63.429  Maintaining eye fixations facilitates resolution of spatial cognitive conflicts

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Anika Krause¹,²,³ (anika.krause@uni-bielefeld.de), Christian H. Poth²,³; ¹Biopsychology and Cognitive Neuroscience, Department of Psychology, Bielefeld University, Germany, ²Neuro-Cognitive Psychology, Department of Psychology, Bielefeld University, Germany, ³Center for Cognitive Interaction Technology (CITEC), Bielefeld University, Germany

63.430  Eye movements as indicators of trait impulsivity and hypomania proneness in healthy adults

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Juana Ayala¹, Trisha Chakrabarty¹,², Ivan Torres¹,², Miriam Spering¹,²; ¹University of British Columbia, ²Djavad Mowafaghian Centre for Brain Health

63.431  Eye movements reveal alternative problem-solving strategies in concussed individuals during performance of the Tower of London task

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*
Naila Ayala\(^1\) (nayala@uwaterloo.ca), Abdullah Zafar\(^1\), Ewa Niechwiej-Szwedo\(^1\); \(^1\)University of Waterloo

**63.432 Leveraging the pupillary light reflex for cognitive pupillometry: An initial characterization of the PLR in two data sets**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Russell Cohen Hoffing\(^1\) (russell.cohenh@gmail.com), Steven Thurman\(^1\), Joseph Coyne\(^2\), Ciara Sibley\(^2\), Leah Enders\(^3\), Heather Roy\(^1\); \(^1\)Army Research Laboratory, \(^2\)Naval Research Laboratory, \(^3\)DCS

**63.433 Attention modulates V4 neural activity across and in the absence of microsaccades**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Shawn Willett\(^{1,2}\) (smw146@pitt.edu), J. Patrick Mayo\(^{1,2}\); \(^1\)University of Pittsburgh Department of Ophthalmology, \(^2\)Center for the Neural Basis of Cognition

**63.434 Pathway selective optogenetic manipulations on the oculomotor circuits of non-human primates**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Xuefei Yu\(^1\) (yxdhhaaa@126.com), Atul Gopal\(^1\), Okihide Hikosaka\(^1\); \(^1\)Laboratory of Sensorimotor Research, National Eye Institute, NIH

**63.435 Functional architecture of visual responses in supplementary eye field**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Pranavan Thirunavukkarasu\(^1\) (thirunap@yorku.ca), Steven Errington\(^2\), Amirsaman Sajad\(^2\), Jeffrey D. Schall\(^1\); \(^1\)Department of Biology, Centre for Vision Research, Vision Science to Application, York University, Toronto, ON, Canada., \(^2\)Department of Psychology, Vanderbilt Vision Research Center, Vanderbilt University, Nashville, TN, USA.

**63.436 Linking brain activity during viewing and recall of movie events through gaze behavior**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Matthias Nau\(^1\), Hannah Tarder-Stoll\(^2\), Austin Greene\(^1\), Janice Chen\(^3\), Christopher Baldassano\(^2\), Juan Antonio Lossio-Ventura\(^1\), Francisco Pereira\(^1\), Chris Baker\(^1\); \(^1\)National Institute of Mental Health (NIMH), \(^2\)Department of Psychology, Columbia University, \(^3\)Department of Psychological and Brain Sciences, Johns Hopkins University

**63.437 V1 neural response precedes saccadic shift of visual target to the fovea**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Tomer Bouhnik\(^*1\) (tomerb3@gmail.com), Ofir Korch\(^1\), Yarden Nativ\(^1\), Roy Oz\(^1\), Hamutal Slovin\(^1\); \(^1\)The Leslie and Gonda (Goldschmied) multidisciplinary Brain Res. Ctr., Bar-Ilan Univ., Israel \(^*\)Equal Contribution

**63.438 SSVE(PLR): Comparing target classification via pupillary light responses to standard EEG-based SSVEP**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Steven Thurman\(^1\), Russell Cohen Hoffing\(^1\), Weichen Liu\(^2\), Chiyuan Chang\(^2\), Cory Stevenson\(^3\), Tzyy-Ping Jung\(^2\), Ying Wu\(^2\); \(^1\)US DEVCOM Army Research Laboratory, \(^2\)University of California, San Diego, \(^3\)National Yang Ming Chiao
63.439 The Costs of Paying Overt and Covert Attention Assessed with Pupilometry

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Damian Koevoet¹ (d.koevoet@uu.nl), Christoph Strauch¹, Marnix Naber¹, Stefan Van der Stigchel¹; Helmholtz Institute, Experimental Psychology, Utrecht University

63.440 Lateralized EEG markers of attention preceding and following shifts in eye position

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Chong Zhao¹ (chongzhao@uchicago.edu), Edward Vogel²; University of Chicago

63.441 Perceptual Organization: Symmetry, preference, ensembles

Detecting second order symmetry

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Chien-Chung Chen¹ (c3chen@ntu.edu.tw), Christopher Tyler; National Taiwan University, Smith-Kettlewell Eye Research Institute

63.442 Relating Variability in Scalp EEG to Variability in Cortical Morphology

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Sara Chaparian¹ (sarah@yorku.ca), Jeffrey Schall¹, Peter J. Kohler¹; York University, Toronto, Ontario, Canada

63.443 Multiple ambiguous neural representations may be perceived as identical to or different from each other: Can Divisive Normalization Explain Which?

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Jaelyn Peiso¹,² (jaepeiso@gmail.com), Steven Shevell¹,²,³; Institute for Mind and Biology, University of Chicago, Psychology Department, University of Chicago, Department of Ophthalmology & Visual Science, University of Chicago

63.444 Task-dependent geometry of a perceptual space

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Suniyya A. Waraich¹ (suniyya.waraich@gmail.com), Mary M. Conte², Jonathan D. Victor²; Weill Cornell Graduate School of Medical Sciences, NY, Feil Family Brain and Mind Research Institute, Weill Cornell Medical College, NY

63.445 Inductive Biases of Children and Adults in a Visual Patterning Task

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Abhishek Dedhe¹, Jodie Zheng¹, Steven Piantadosi², Jessica Cantlon¹; Carnegie Mellon University, University of California, Berkeley

63.446 Estimating the error contributions of six component processes that determine the number of reportable centroids following a brief exposure of multicolor dot arrays

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

George Sperling¹ (sperling@uci.edu), Lingyu Gan²; University of California, Irvine
63.447 ERP Evidence for the Role of Attention in the Visual Discrimination of Ensemble Summary Statistics

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Anton Lukashevich¹ (anl22@hi.is), Maxim Petrov², Igor Utochkin³; ¹University of Iceland, ²Saint-Petersburg Psychiatric Hospital named after P. P. Kashchenko, ³University of Chicago

Scene Perception: Natural image statistics

63.448 Ensemble Scene Processing is Regulated by Feature Complexity

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Vignash Tharmaratnam¹, Dirk B. Walther², Jonathan S. Cant¹; ¹University of Toronto Scarborough, ²University of Toronto

63.449 Overestimation of Variability in Ensembles of Size and Color Despite Focusing Attention on Relevant Features

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Amelia C. Warden¹ (acwarden@colostate.edu); ¹Colorado State University

63.450 Contextual coherence increases perceived numerosity independent of semantic content

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Chuyan Qu¹ (qchuyan@sas.upenn.edu), Michael F. Bonner², Elizabeth M. Brannon¹; ¹University of Pennsylvania, ²Johns Hopkins University

63.451 Toddler and preschooler attention to naturalistic scene features

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Shannon Klotz¹ (smklotz@ucdavis.edu), Taylor Hayes², John Henderson³, Lisa Oakes⁴; ¹University of California, Davis

63.452 The statistics of visual input change systematically with development

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Erin Anderson¹ (ema1@iu.edu), Evelina Dineva¹, Linda Smith²; ¹Indiana University

63.453 The time course of adaptation in modified reality: isotropic environments and orientation anisotropies

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Bruno Richard¹ (bruno.richard@rutgers.edu), Christina Barbosa¹, Patrick Shafto¹,²; ¹Rutgers University – Newark, Newark, NJ, ²Institute for Advance Study, Princeton, NJ

63.454 Visual perceptual learning of natural and Portilla & Simoncelli images occurs in a significantly different manner than visual perceptual learning of unnatural images

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Kazuhisa Shibata¹ (kazuhisa.shibata@riken.jp), Daiki Ogawa², Yuka Sasaki³, Takeo Watanabe³; ¹RIKEN, ²Nagoya University, ³Brown University
63.456 N300 sensitivity to statistical regularity persists for low-pass filtered scenes
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Ling Lee Chong¹, Kara D Federmeier¹, Diane M Beck¹; ¹University of Illinois, Urbana-Champaign

63.457 Eye movements during active vision are not driven by saliency, meaning, or aesthetics
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Jennifer Hart¹ (jhart2@bates.edu), Wentao Si¹, Joaquin Torres¹, Ronald Mezile¹, Benjamin Balas², Michelle Greene¹; ¹Bates College, ²North Dakota State University

63.458 Local image statistics can account for the perceived naturalness of image contrast
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Taiki Fukiaje¹ (tfukiaje@gmail.com), Shin’ya Nishida¹-²; ¹NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan, ²Graduate School of Informatics, Kyoto University, Japan

63.459 Viewpoint and seasonal variations in natural scene statistics
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Michelle Greene¹ (mgreene2@bates.edu), Jennifer Hart¹, Benjamin Balas²; ¹Bates College, ²North Dakota State University

63.460 Understanding the high-dimensional nature of visual cortex representations
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Raj Magesh Gauthaman¹ (rgautha1@jh.edu), Brice Ménard¹, Michael Bonner¹; ¹Johns Hopkins University

Scene Perception: Models

63.461 Perceptual estimates of the physical attributes of people in photographs
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Sarah Barrington¹ (sbarrington@berkeley.edu), Hany Farid¹; ¹University of California, Berkeley

63.462 Evaluating physical scene understanding with objects consisting of different physical attributes in humans and machines
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Hsiao-Yu Tung¹-² (sfish0101@gmail.com), Mingyu Ding³, Zhenfang Chen⁴, Daniel Bear², Chuang Gan³, Joshua Tenenbaum¹, Daniel Yamins², Judith Fan⁵, Kevin Smith¹; ¹Massachusetts Institute of Technology, ²Stanford University, ³University of Hong Kong, ⁴MIT-IBM Watson AI Lab, ⁵University of California San Diego

63.463 How real can they get? Investigating neural responses to GAN generated scenes.
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion
Aylin Kallmayer¹ (aylin.kallmayer@gmail.com), Melissa Vo¹; ¹Goethe-University Frankfurt Germany

63.464 Benchmarking Human Mid-Level Scene Understanding
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Yoni Friedman\textsuperscript{1}, Thomas O'Connell\textsuperscript{1}, Daniel Bear\textsuperscript{2}, Jiajun Wu\textsuperscript{2}, Judy Fan\textsuperscript{2,3}, Josh Tenenbaum\textsuperscript{1}, Dan Yamins\textsuperscript{2}; \textsuperscript{1}MIT, \textsuperscript{2}Stanford, \textsuperscript{3}UCSD

\textbf{63.465 The similarity of CNN, behavioral, and PPA feature spaces}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Pei-Ling Yang\textsuperscript{1} (plyang2@illinois.edu), Zhenan Shao\textsuperscript{1}, Diane M. Beck\textsuperscript{1}; \textsuperscript{1}University of Illinois

\textbf{63.466 Toward A Computational Model of Directional Visual Relations}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Pachaya Sailamul\textsuperscript{1} (pachaya_sailamul@brown.edu), Thomas Serre\textsuperscript{1}; \textsuperscript{1}Brown University

\textbf{63.467 A Transfer Account of Orientation Ensemble Averaging}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Jacob Zepp\textsuperscript{1} (jacobzepp@usf.edu), Chad Dubé\textsuperscript{1}; \textsuperscript{1}University of South Florida

\section*{Scene Perception: Virtual environments}

\textbf{63.468 Studying spatial representations of our visual experience using real-world environments}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Brenda Garcia\textsuperscript{1}, Anna Mynick\textsuperscript{1}, Caroline Robertson\textsuperscript{1}; \textsuperscript{1}Dartmouth College

\textbf{63.469 Artificial Scene Grammar Acquisition}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Maxim Spur\textsuperscript{1} (spur@psych.uni-frankfurt.de), Melissa Vo\textsuperscript{1}; \textsuperscript{1}Scene Grammar Lab, Goethe University

\textbf{63.470 The brain predominantly represents attended semantics rather than global semantics in a naturalistic task}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Tianjiao Zhang\textsuperscript{1} (t.zhang@berkeley.edu), Jack Gallant\textsuperscript{1}; \textsuperscript{1}UC Berkeley

\textbf{63.471 Comparing Fire: Precision of Visual Perception of Fire Intensity}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Justin W. Bonny\textsuperscript{1} (justin.bonny@morgan.edu), James A. Milke\textsuperscript{2}; \textsuperscript{1}Morgan State University, \textsuperscript{2}University of Maryland, College Park

\textbf{63.472 Memory-based predictions facilitate perceptual judgements across head-turns in naturalistic scene perception}

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Anna Mynick\textsuperscript{1} (anna.r.mynick.gr@dartmouth.edu), Thomas L Botch\textsuperscript{1}, Allie Burrows\textsuperscript{1}, Brenda D Garcia\textsuperscript{1}, Adithi Jayaraman\textsuperscript{1}, Adam Steel\textsuperscript{1}, Caroline E Robertson\textsuperscript{1}; \textsuperscript{1}Dartmouth College

\textbf{63.473 Visual clutter: The role of background texture, set size, and item organization}
Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Yelda Semizer¹ (yelda.semizer@njit.edu), Tomer Weiss¹; ¹New Jersey Institute of Technology
Synchronized Integrated Solution

2 kHz Eye Tracker
TRACKPixx3

1440 Hz Projector
PROPixx

120 Hz CRT Replacement
VIEWPixx

Video I/O Hub
DATAPixx3

Meet our Scientists!

Amanda Estephan, Ph.D.
scientist_estephan@vpixx.com

Sophie Kenny, Ph.D.
scientist_kenny@vpixx.com

Lindsey Fraser, Ph.D.
scientist_fraser@vpixx.com

Jonathan Tong, Ph.D.
scientist_tong@vpixx.com

VPixx Technologies Inc.
630 Clairevue West, suite 301
Saint-Bruno, QC Canada, J3V 6B4
Experiment Builder support for:
- BioSemi Devices
- BrainVision Recorder
- EGI Net Station 2.0
- Neuroscan
... and many more!

- Pack your eye-tracking lab in a carry-on bag
- Quick and easy setup using laptop or desktop displays
- Record up to 2000 Hz binocular head-stabilized and 1000 Hz head free-to-move
- Unsurpassed flexibility - multiple mounts and configurations for ALL models

Experiment Builder support for:
- BioSemi Devices
- BrainVision Recorder
- EGI Net Station 2.0
- Neuroscan
... and many more!

- Interchangeable configuration for ECoG, EEG, fMRI, fNIRs, MEG, rTMS, PET...
- Wide range of applications including infant, patient, and NHP tracking
- Specialized MRI mounts
- Unparalleled precision and flexibility in the behavioral lab or MRI

Over 11,000 Peer-Reviewed Publications and Counting...

www.sr-research.com

Fast, Accurate, Reliable Eye Tracking

EyeLink is a registered trademark of SR Research Ltd.
EXplore Your Future with Exponent

Attending Vision Sciences Society Conference?  
Come learn more about Exponent and connect with us in person.

Exponent is a leading engineering and scientific consulting firm that brings together more than 50 years of experience and 90 different disciplines — including human factors (perceptual, cognitive, and developmental psychology and neuroscience) — to solve the most pressing challenges facing stakeholders today. Our vision is to engage the brightest scientists and engineers to empower clients with solutions for a safe, healthy, sustainable, and technologically complex world.

For more information, contact:

Robert Rauschenberger, Ph.D.  
Principal Scientist, Human Factors  
213.304.6598 (cell)  
rrauschenberger@exponent.com

To learn more about our current openings, visit www.exponent.com/careers.
San Francisco, California

November 16, 2023

Join us to witness outstanding research by graduate and postdoctoral scientists at the annual Object Perception, Attention, and Memory conference.

Visit www.opam.net for more details
2023 Exhibitors

VPixx Technologies (Gold Sponsor)
Booths 6, 7 & 8

**VPixx Technologies** welcomes the vision science community to VSS 2023.

Over the past 22 years, VPixx has become known for our innovative hardware for vision research. The PROPixx DLP LED video projector, supporting refresh rates up to 1440Hz, has become the standard for neuroimaging, neurophysiology, and behavioral vision research applications. The TRACKPixx3 2kHz binocular eye tracker and the DATAPixx3 I/O hub offer microsecond-precise data acquisition synchronized to stimulus presentation. Our new LabMaestro software is now making these instruments even easier to use!

Visit our booth to see demonstrations of our LabMaestro suite of psychophysics software. LabMaestro Builder is your intuitive GUI application for designing and running psychophysics experiments in your lab. LabMaestro Pack&Go is your solution for quickly running psychophysics experiments on remote subject populations. LabMaestro Simulator emulates VPixx hardware, allowing you to develop and test experiment protocols in the absence of your physical instruments. Visit our booth to discuss your research with our Staff Scientists!

Peter April, Jean-Francois Hamelin, Sophie Kenny, and Jonathan Tong wish you well.

Exponent (Silver Sponsor)
Booth 12

**Exponent** is a leading scientific and engineering consulting firm. Our multidisciplinary organization of brings together more than 90 technical disciplines to address complicated issues facing industry and government today. Among myriad other specialized services, we provide user experience and human factors support across the entire product lifecycle informed by five decades of experience in failure analysis. We are always looking for qualified PhDs, postdocs, and early-career faculty interested in technical consulting.

SR Research Ltd (Silver Sponsor)
Booth 13

**SR Research** produces the EyeLink family of high-speed eye trackers and has been enabling scientists to perform cutting-edge research since the early 1990s. EyeLink systems are renowned for their outstanding technical specifications, temporal precision, and superb accuracy. The EyeLink 1000 Plus has the world’s lowest spatial noise and can be used in the laboratory and in EEG/MEG/MRI environments. The EyeLink Portable Duo offers the same high levels of data quality in a small, portable package. SR Research also provides sophisticated experiment delivery and analysis software, and a truly legendary support service.

Brain Vision LLC (Bronze Sponsor)
**Brain Vision LLC** is the leading team for EEG in Vision Science. We offer full integration of EEG with many leading eye-tracking and video systems. We also provide flexible and robust solutions for both stationary and mobile EEG. All of our systems are available with a variety of electrode types such as saline-sponge nets, active gel, passive, and dry electrodes, which are easily expandable with bio-sensors like GSR, ECG, Respiration, and EMG. Our team is specialized in using EEG with other modalities such as fMRI, fNIRS, MEG, TMS, and tDCS/HDtDCS. If you want to know how EEG and Vision Science improve each other, please feel free to contact us:

Phone: +1.877.EEG 4 MRI
Email: info@brainvision.com

**Cambridge Research Systems (Bronze Sponsor)**

Booth 16

At **Cambridge Research Systems**, our reputation is founded on values of scientific rigour and integrity. For over 30 years, our unique range of Tools for Vision Science, Functional Imaging and Clinical Research has been ubiquitous in laboratories throughout the world, and cited in thousands of papers.

We design and develop innovative new tools that enable the advancement of science by combining engineering expertise with innovation, cutting edge technology, and ongoing collaboration with our valued academic partners. Our products are market leaders, our people committed and knowledgeable. Our ambition is to continue setting standards in the vision science community, of which we are proud to be a part.

We look forward to seeing you again at VSS! Please call at our booth to see our latest products for visual stimulation, eye tracking, vision assessment, and MRI; or contact enquiries@crsltd.com.

**C. Light Technologies (Bronze Sponsor)**

Booth 15

**C. Light Technologies**, is a neuro-tech and AI company whose mission is to create a scanning laser ophthalmoscope (SLO) technology and eye tracking software to objectively measure eye motion via the retina. We are on the mission to create novel technology to enhance the quality of life for people with neurodegenerative disorders via the eye-brain connection.

The Retitrack™ is an Eye Movement Monitor. It is intended for recording, viewing, measuring, and analyzing temporal characteristics of fixation and saccadic responses when viewing a visual stimulus.

**NIRx Medical Technologies (Bronze Sponsor)**

Booth 9

**NIRx Medical Technologies**, LLC is a globally recognized leader in providing comprehensive solutions for
functional near-infrared spectroscopy (fNIRS) research. The versatility of fNIRS has seen a significant increase in its application in vision science. The technique allows for the measurement of neural activity in the visual cortex and large-scale cortical networks and is useful in investigating the neural mechanisms underlying visual attention and perception. Additionally, fNIRS is employed in studying the effects of visual deprivation or visual training. Its non-invasive and user- and subject-friendly nature makes it an ideal tool for monitoring changes in neural activity during the development of the visual system in infants and children. Furthermore, it is increasingly used in researching changes in neural activity related to visual disorders and the changes resulting from treatment.

NIRx offers a complete range of research solutions, including a versatile multimodal hardware platform, advanced online and offline analysis software, expert technical and scientific support, and comprehensive training programs.

We are committed to supporting fNIRS researchers through our offices in Orlando, New York and Berlin, Germany. For further details on our solutions, please do not hesitate to contact us at +49 308 1453 5990 (EU), (+1) 321-352-7570 (US/Canada), or come and visit our booth at the VSS meeting.

Open Science Tools (Bronze Sponsor)

Booth 2

Open Science Tools created and maintains PsychoPy, PsychoJS and Pavlovia. These tools are designed to make it as easy as possible to create high-precision experiments for lab-based or online studies, even running vision-science experiments and providing gamma-correction in browser-based studies. Stop by the booth to find out what’s now possible – you might be surprised!

PsychoPy and PsychoJS are unusual in being open-source tools that are supported by a revenue stream, from our hosting and consultancy services, which means the tools are developed and supported by a full-time professional team. The best of both worlds!

We now also provide consultancy services, either to help generate your studies, or to provide training for your department or team. If you don't have time to write that next experiment, or to port your code over from SomeOtherPackage, but you do have some left over funding, then get in touch on consultancy@opensciencetools.org

Psychology Software Tools (Bronze Sponsor)

Booth 14

Psychology Software Tools – Developers of E-Prime 3.0 stimulus presentation software. E-Prime 3.0 now includes E-Prime Go for remote data collection! Integrate E-Prime with eye tracking and EEG with E-Prime Extensions for Tobii Pro, EyeLink, Net Station, and Brain Products. Use Chronos for millisecond-accurate
responses, sound output, and triggers to external devices. Chronos Adapters provide a simple connection to external devices, including Brain Products, ANT Neuro, BIOPAC, BioSemi, Neuroscan, MagstimEGI, NIRx, g.tec, Smart Eye and more. PST also provides solutions for fMRI research, such as Fiber Optic and Wireless Response Systems, Digital Projection System, and an MRI Simulator with head motion tracking. PST has a 35-year company history with 100,000+ users in 75 countries!

Psychonomic Society (Bronze Sponsor)

Booth 10

The Psychonomic Society is a community of over 4,300 cognitive and experimental psychologists from more than 60 countries around the world. Members include some of the most distinguished researchers in the field. Many are concerned with the application of psychology to health, technology, and education. What brings us together is that we study the basic, fundamental properties of how the mind works by using behavioral techniques to better understand mental functioning.

Our most innovative research uses converging methods from behavioral measurement, neuroscience, computational modeling and other fields to achieve our research goals. Members of the Society conduct research on questions concerning memory, learning, problem solving, decision making, language, attention, and perception. We also connect with research in biology, chemistry, statistics, computer science, medicine, law, and business.

We achieve our objectives by hosting meetings around the world, publishing seven world-class, peer-reviewed journals, disseminating our research, and funding workshops and symposia.

Visit us online and Become a Member.

Rogue Research Inc. (Bronze Sponsor)

Booths 3 & 4

Rogue Research has been your partner in neuroscience research for over 20 years. As developers of the Brainsight® family of neuronavigation systems for non-invasive brain stimulation, we have helped make transcranial magnetic stimulation more accurate and more reproducible while keeping it simple and effective. 20 years and over 1000 laboratories later, Brainsight® continues to evolve to meet the needs in non-invasive brain stimulation.

Rogue Research has expanded beyond navigation to develop our own, next-generation, TMS device: Elevate™ TMS. Elevate™ TMS offers control over the pulse shape to ensure more reproducible excitatory or inhibitory effects on the targeted network. While Brainsight® ensures accurate targeting and Elevate™ TMS ensures reliable circuit interaction, Rogue Research is also developing a robotic positioner to ensure that the plan is accurately and efficiently carried out. The unique design ensures accuracy, repeatability and simplicity.
Rogue Research also offers our Brainsight® Vet line of neurosurgical and neuronavigation tools for animal research. Come see our navigated microsurgical robot, which is the most accurate animal stereotaxic system on the market. We also offer custom MRI compatible implants and a line of MRI coils and testing platforms.

**WorldViz VR (Bronze Sponsor)**

Booth 1

For 20 years, WorldViz VR has helped over 1500 universities, businesses and government organizations to conduct leading edge research with Virtual Reality.

Over the years, WorldViz VR has developed Vizard, a python-based platform that enables users to rapidly build 3D virtual reality applications that solve real world business and research challenges.

WorldViz will present SightLab VR, a fully GUI based tool that allows users to collect, review and analyze eye tracking data with support for all the major PC based VR eye tracking devices including HP Reverb Omniecept, Vive Pro Eye, Pupil Labs and Tobii VR. It will allow drag and drop adding of videos and 3D models, and many of the most used analytics methods are included into the provided templates.

Build a scene, run your experiment and review in minutes. Fully expandable and modifiable by using the GUI configurator or python code.

The WorldViz components allow integration of highly targeted VR labs, and we are happy to help customers configure their own labs, tailored to their specific needs.

**Zeto, Inc. (Bronze Sponsor)**

Booth 5

Zeto, Inc. is a privately held medical technology company located in Santa Clara, CA focused on transforming the way electroencephalography is done in clinical and research settings. Zeto's revolutionary FDA-cleared EEG platform brings the traditional EEG procedure to the 21st century by offering the WR19, a zero-prep, wireless, easy-to-wear headset with active, dry electrodes that can be positioned as per the 10-20 system.

The Zeto headset is backed by a cloud data and software platform, a real-time LSL-based API, and a TTL-based trigger device for ERP studies.

The company plans to leverage its platform technology to improve access and quality to medical EEG testing and to enable and improve adjacent biomedical research and clinical trials.

Learn more about our research platform: [https://zeto-inc.com/academic-discount/](https://zeto-inc.com/academic-discount/)

Contact us: research@zetoinc.com
TRADEWINDS ISLAND RESORT DIRECTORY

DINING & ENTERTAINMENT

Starbucks™ coffee and cocktails
Family Sports Pub, Lunch, Dinner ‘til Late Night
Breakfast & Dinner – Casual dining, steak & seafood, sunset view
Breakfast pastries, fruit, snacks, beer/wine, sandwiches to order
Lunch, tropical drinks, and sunset dinners
Casual indoor and outdoor dining for all meals
Pizza, wings, ice cream and sundaes
Exceptional cuisine for Lunch and Dinner, Sunday Brunch Buffet
Live entertainment, bottled beer and full bar
Tiki bar, tropical drinks, Lunch and lite bites
Starbucks™ coffee, on-the-go-breakfasts, cocktails
Tropical drinks, beer, wine and appetizers

MEETING & EVENT FACILITIES, ISLAND GRAND

Banyan ............................................. 5
Banyan Breezeway ............................... 5
Bird Key ............................................. 2
Blue Heron, 2nd floor ......................... 3
Board Room, 2nd floor ........................ 3
Breck Deck ......................................... 22
Chart Room, 2nd floor .......................... 3
Citrus .................................................. 5
Compass Room, 2nd floor .................... 3
Cypress Villa, 2nd floor ........................ 17
Garden Courtyard ............................... 6
Glades ............................................... 5
Grand Palm Colonnade ....................... 1
Horizons East & West .......................... 20
Horizons Portico .................................. 19
Indian Key ......................................... 2
Island Ballroom .................................. 2
Jacaranda Beach .................................. 9
Jacaranda Hall .................................... 5
Jasmine ............................................. 5
Long Key ........................................... 2
Palm .................................................. 5
The Pavilion ....................................... 18
Pirate Island ....................................... 16
Royal Terr, 2nd floor ............................ 3
Sabal .................................................. 5
Sawgrass .......................................... 5
Sawyer Key ........................................ 2
SeaBreeze Terrace .................. 11
South Beach Lawn ..................... 8
Snowy Egret, 2nd floor ....................... 3
Tarpon Key ........................................ 2

OFFICES, BUSINESS

ATM ..................................................... 1, 21, 26
Business Center ................................. Lobby

RECREATION

TradeWinds Adventure Center ........... 11
Guy Harvey Outfitter ......................... 27
Cabana Hut ....................................... 10, 30
Chess Set, Lifesize .............................. 6
Fitness Centers .................................. 24,26
KONK for Camps & Crafts ........... 17
Mini-Golf .......................................... 7
Paddleboat Landings ......................... 15
Pet Play Zone ...................................... 7
Pirate Island ...................................... 16
Sauna ............................................... 13
Tennis Reservations, Racquets .......... 11
Towels for beach & pool ................. 11, 30
Game Room Arcade ....................... 17
Volleyball .......................................... 10
Watersports ...................................... 11
Whirlpools ....................................... 11, 28

SHOPS & SALON

Beaker’s Tropical Outfitters ............... 20
Body Works Spa & Fitness ............... 24
Deli & General Store ....................... 1
Guy Harvey Outfitter Shop ............. 27

GUY HARVEY OUTPOST

Fitness Center, 3rd floor ................. 26
Guy Harvey Outfitter Shop ............. 27
Guy’s Gulfside Grill ......................... 29
Li’l Guys Activities ......................... 30
North Terrace Courtyard ............... 32
Oasis Adult Courtyard ..................... 28
Perks Up Coffee & more ............... 26
Sunset Beach ..................................... 31
SandBar .......................................... 31
Tradewinds Island Grand Resort