**Sunday, October 4 – Tuesday, October 6, 2020**
(available at an additional fee)

**Pre-Meeting Workshop: Mini ERP Boot Camp**
Organizer and Presenter:
Steven J. Luck, PhD, Center for Mind & Brain and Department of Psychology, University of California, Davis

Prior to the workshop, registrants should complete an asynchronous fully online course, Introduction to ERPs, created by Dr. Luck. This online course is completely free, should take 5-10 hours to complete, and can be accessed at https://courses.erpinfo.org/courses/Intro-to-ERPs. It is essential that registrants complete this online course before attending the workshop, even if they already have significant ERP experience. The online course will provide a common vocabulary and set of examples, and it will allow the workshop to focus on more advanced topics and interactive discussion.

**Outline of Workshop:**
A. What are ERPs and How are they Generated?
B. Examples and Advantages of the ERP Technique
C. Common ERP Components
D. EEG Data Ac quisition
E. Artifact Rejection and Correction
F. Design and Interpretation of ERP Experiments
G. Standard ERP Processing and Analysis Steps

**Wednesday, October 7, 2020**

10:00 a.m.-11:00 a.m., EDT
Invited Address:
**Chemistry of the Adaptive Mind: Lessons from Dopamine**
Roshan Cools, PhD
Principal Investigator, Motivational and Cognitive Control Lab, Donders Institute for Brain, Cognition and Behaviour, Professor of Cognitive Neuropsychiatry, Radboud University Medical Introduction: Prof. Dr. Johanna Kissler, Bielefeld University

11:00 a.m.-12:00 noon, EDT
Symposium #1:
**Risky Business: Using Psychophysiology to Understand Risk and Reward in Health and Illness**
Session Chair: Luke Clark, University of British Columbia

Using Psychophysiology and Computational Models to Understand Emotional Responses to the Outcomes of Risky Choices
Ross Otto1, Larissa Ferreira Pedrosa2, Aaron Heller3, Hanna Davies1 & Sana-Eve Faraji1
1McGill University, 2University of Sao Paolo, 3University of Miami

Neural Responses to Reward and Risk-Taking: Differential Associations Across Adolescent Development
Clara Freeman & Anna Weinberg
McGill University

Relevance of Reward Versus Cognitive Brain States for Prediction of Different Substance Use Behaviors
Sarah Yip
Yale University

How Slot Machine Design Features Harness Brain Systems for Risk and Reward
Luke Clark, Spencer Murch, Catharine Winstanley & Mariya Cherkasova
University of British Columbia

12:00 noon-12:30 p.m., EDT
**Break**
12:30 p.m.-1:30 p.m., EDT

**Big Ideas Session #1: Sex Differences and Women's Health**
Session Chair: Echo Leaver, Salisbury University

Sex Differences and the Role of Ovarian Hormones in Associations Between Anxiety and Cognitive Control: Uncovering Novel Mechanisms for Women's Mental Health
Jason Moser, Courtney Louis, Lilianne Gloe, Ruofan Ma
*Michigan State University*

The Error-Related Negativity (ERN) and the Menstrual Cycle: Effects of Ovarian Hormones on the ERN and Obsessive-Compulsive Symptoms
Elizabeth Mulligan\(^1\), Greg Hajcak\(^1\), Julia Klawohn\(^1,2\), Brady Nelson\(^3\), Alexandria Meyer\(^4\)
\(^1\)Florida State University, \(^2\)Humboldt University of Berlin, \(^3\)Stony Brook University

Effects of Maternal IPV-PTSD on Mothers’ Evaluation of Threat and Trustworthiness in Avatars and Intergenerational Transmission of Emotional Appraisal Bias to Their Children
Virginie Perizzolo\(^1\), Dominik Moser\(^1,2\), Marylene Vital\(^3\), Alexander Todorov\(^4\), Sandra Rusconi Serpa\(^5\), Daniel Schechter\(^1,6\)
\(^1\)University of Geneva, Department of Psychiatry, \(^2\)University of Bern, \(^3\)University of Geneva Hospitals, \(^4\)Princeton University, \(^5\)University of Geneva, Faculty of Psychology, \(^6\)Lausanne University Medical Center

Frontal Asymmetry as a Novel Biomarker for Physical Activity and Inactivity
Hunter Threadgill\(^1\), Ricardo Wilhelm\(^2\), Battagtokh Zagdsuren\(^3\), Hayley MacDonald\(^2\), Mark Richardson\(^3\), Philip Gable\(^3\)
\(^1\)Florida State University, \(^2\)The University of Alabama, \(^3\)University of Delaware

1:30 p.m.-2:30 p.m., EDT

**Poster Session 1**

Poster presenters have provided a video summary of their poster presentation. These video recordings along with a pdf of their poster and their abstract are available for attendees to access. There is also a chat section for each poster. Authors will be present and look forward to interacting with attendees during the poster sessions. A link to this area will be provided to all attendees closer to the virtual meeting dates.

3:30 p.m.-5:00 p.m., EDT

**Diversity and Outreach Committee Event, co-sponsored by the Australasian Cognitive Neuroscience Society**

**Building Diversity Pipelines**
Dr. Kim R. Bobby, D,E,&I Leadership Consultant, Higher Education

The effectiveness of implementation of institutional policies and practices aimed at increasing representation from diverse groups in academic and research environments is often hampered by weak recruitment and retention of faculty, staff, and students from diverse backgrounds. Dr. Bobby will lead an interactive workshop targeting barriers and enablers of wider diversity pipelines in academia.

---

Thursday, October 8, 2020

10:00 a.m.-10:30 a.m., EDT

**Early Career Award Address**
Psychophysiology Sans Laboratory
Kyle E. Mathewson, PhD
Associate Professor, Department of Psychology, Faculty of Science, University of Alberta, Edmonton, Alberta
Introduction: Terry Blumenthal, Wake Forest University

10:30 a.m.-11:30 a.m., EDT

**Symposium #2:**
To Predict or Not to Predict: Modeling EEG Data, Promises, and Limitations
Session Chair: Hedwig Eisenbarth, University of Wellington

Hypothesis-driven Dimension Reduction and Source Separation for Time-Domain EEG Data
Hause Lin\(^1\) & Mike Cohen\(^2\)
\(^1\)University of Toronto, \(^2\)Donders Institute for Brain, Cognition and Behavior, Radboud University

Investigating Spatial and Temporal Correlates of Cortical Music Representations Through Representational Models
Peer Herholz
Montreal Neurological Institute

Mapping the Cognitive Architecture of Proactive Control Using Time-generalized Multivariate Pattern Analysis of Evoked EEG Activity
José Alanis
University of Marburg

Prediction of Valence and Arousal Ratings by EEG and Peripheral Physiological Data
Hedwig Eisenbarth, Tim Gastrell, Caitlin Heesterman & Bing Xue
Victoria University of Wellington

11:30 a.m.-12:30 p.m., EDT

**Big Ideas Session #2: Understanding Laboratory and Real-world Behavior**
Session Chair: Brandon Alderman, Rutgers University

The Furious Third: Low Midfrontal Theta and State Anger Predict Punishment in a Third Party Dictator Game
Johannes Rodrigues\(^1\), Marvin Liesner\(^1\), Mario Reutter\(^1\), Patrick Mussel\(^2\), Johannes Hewig\(^1\)
\(^1\)Julius-Maximilians Universität Würzburg, \(^2\)Freie Universität Berlin

Advancing the Viability of Non-Deceptive Placebos to Improve Physical and Psychological Health
Darwin Guevarra\(^1\), Jason Moser\(^1\), Tor Wager\(^2\), Ethan Kross\(^3\)
\(^1\)Michigan State University, \(^2\)Dartmouth College, \(^3\)University of Michigan, Ann Arbor

Behavioral, Lifestyle, and Dietary Treatments of Asthma: Foundation in Psychophysiology
Thomas Ritz\(^1\), Chelsey Werchan\(^1\), Juliet Kroll\(^1\), Alicia Meuret\(^1\), Bernhard Dahme\(^2\), David Rosenfield\(^1\)
\(^1\)Southern Methodist University, \(^2\)University of Hamburg
Can Food Preferences be Modified by Post-hypnotic Suggestions? 
An Event-related Brain Potential Study 
Anoushiravan Zahedi, Aleksandra Luczak, Werner Sommer 
Humboldt University of Berlin

12:30 p.m.-1:30 p.m., EDT 
**Poster Session 2**

Poster presenters have provided a video summary of their poster presentation. These video recordings along with a pdf of their poster and their abstract are available for attendees to access. There is also a chat section for each poster. Authors will be present and look forward to interacting with attendees during the poster sessions. A link to this area will be provided to all attendees closer to the virtual meeting dates.

5:00 p.m.-6:00 p.m., EDT

**Workshop: New Reviewer Do's and Don’ts**

Monica Fabiani, Editor-in-Chief, Psychophysiology and University of Illinois, Urbana-Champaign
Frini Karayanidis, Associate Editor, Psychophysiology and University of Newcastle
Lisa Gatzke-Kopp, Senior Editor, Psychophysiology and Pennsylvania State University

In this workshop, the Editor-in-Chief of Psychophysiology and members of the Editorial Board will provide some tips and resources for new reviewers of journal articles, including how to get invited to do your first review, and what to do once you are, including best practices and typical problems.

**Friday, October 9, 2020**

10:00 a.m.-11:00 a.m., EDT

*Psychophysiology* Editorial Board Meeting

11:00 a.m.-12:00 noon, EDT

**Symposium #3:**

**How and for Whom: Functional Mechanisms in Cognition and Mood Considering Sex and Identity-related Factors**

Session Chairs: Courtney C. Louis and Lilianne M. Gloe
Michigan State University
Discussant: Lisa M. Gatzke-Kopp, Pennsylvania State University

- Investigating the Role of Estradiol in Mood and Cognition Across Black and White Females
  - Courtney Louis & Jason Moser
  - *Michigan State University*

- Ovarian Hormones and Daily Emotional Variability: Little Evidence for Differences Between the Endogenous Menstrual Cycle and Exogenous Oral Contraceptive Use
  - Alexander Weigard, Amy Loviska & Adriene Beltz
  - *University of Michigan*

- Exploring Functional Implications of Worry: Associations Between Error-Monitoring and Proactive Control
  - Lilianne Gloe & Jason Moser
  - *Michigan State University*

12:00 noon-12:30 p.m., EDT

Break

12:30 p.m.-1:30 p.m., EDT

**SPR Business Meeting and Awards Ceremony**

1:30 p.m.-2:30 p.m., EDT

**Poster Session 3**

Poster presenters have provided a video summary of their poster presentation. These video recordings along with a pdf of their poster and their abstract are available for attendees to access. There is also a chat section for each poster. Authors will be present and look forward to interacting with attendees during the poster sessions. A link to this area will be provided to all attendees closer to the virtual meeting dates.

4:00 p.m.-6:00 p.m., EDT

**Virtual Student Social in Gather.Town**

Sponsored by the Committee to Promote Student Events

Join other students and trainees after Poster Session 3 for a virtual social in Gather.Town, where you will navigate an avatar around a map to mingle and converse via video chat with other attendees, play virtual card games, and more! Details for how to attend will be provided to all students/trainees after registration. For questions, please contact virtual host Anna Finley ajfinley2@wisc.edu.

**Saturday, October 10 – Sunday, October 11, 2020**

(registration is complimentary)

10:00 a.m.-11:30 a.m. EDT on Saturday and Sunday

**Post-Meeting Workshop: ERP Decoding Methods**

Organizer and Presenter:
Steven J. Luck, PhD, Center for Mind & Brain and Department of Psychology, University of California, Davis

Speakers:
Gi-Yeul Bae, PhD, Arizona State University
Aaron M. Simmons, BS, University of California, Davis

Interested in learning how to apply MVPA decoding methods to ERP data? We will be presenting a pair of webinars on ERP decoding as part of our Virtual ERP Boot Camp. Each webinar will be approximately 90 minutes.

Part 1 will be a general overview of how ERP decoding works, what kinds of things can be decoded, and the strengths and weaknesses of decoding relative to traditional univariate ERP analysis methods. This part will be led by Steve Luck.

Part 2 will be a how-to workshop led by Gi-Yeul Bae (who developed our decoding approach) and Aaron Simmons (the lab manager for the Luck Lab). They will go through our decoding pipeline line by line so that you’ll be able to easily apply it to your own data. Everything is in Matlab, using a bit of EEGLAB and ERPLAB and a lot of custom code that can be easily adapted for a broad range of experiments. Part 2 will assume that you’ve done Part 1 and that you have at least a little Matlab coding experience.

We will focus on decoding for basic science and preclinical research, not for engineering applications. For example, our methods are not very useful for brain-computer interfaces, but they can be incredibly powerful for answering scientific questions about the human mind and brain. For an overview of our approach and links to recent papers, see this blog post.