Wednesday, October 11, 2017

9:00 a.m.-4:30 p.m.

Pre-Conference Workshop 1
Advanced EEG Single-Trial Analysis Techniques
Adrian Fischer, Otto von Guericke University Magdeburg

In this workshop, we will introduce participants to possibilities on how to combine model-based analysis techniques with single-trial EEG data. Computational modeling promises to help gain mechanistic insights into the temporal dynamics of brain signals to further our understanding of important cognitive processes. These models are especially fruitful if they exploit temporal dynamics within trials, as well as variation in cognitive processes that occur from trial-to-trial. On the other hand, electrophysiological signals, despite being highly time-resolved, have a poor signal-to-noise ratio. In this workshop we will introduce participants to basic techniques of how to combine single-trial data with EEG analyses using robust regression techniques. We will additionally introduce means to increase single-trial data quality via independent component analysis (ICA) and multivariate modeling, which can fruitfully be combined with single-trial regressions.

All participants should have basic knowledge in matlab as well as a solid understanding of ERP analysis methods.

9:00 a.m.-4:30 p.m.

Pre-Conference Workshop 2
Multilevel Modeling
Elizabeth Page-Gould, University of Toronto

Multilevel modeling (MLM) is a statistical analysis that can analyze datasets with cases that are not independent, like the repeated measures data commonly recorded in psychophysiological studies. Moreover, MLM is a flexible analysis that can be learned once and readily adapted to most psychophysiological designs. For psychophysicists who are used to working with Repeated-Measures ANOVA, MLM offers an improved method for harnessing the statistical power of within-subjects designs and can easily incorporate continuous predictors. This workshop will provide a practical introduction to MLM for psychophysicists, including advanced topics like growth curves, non-Gaussian data, cross-classified models, and the calculation of effect sizes.

Workshop materials will include example data and syntax for SPSS, R, and SAS. The goal is for you to leave the workshop with the theoretical and practical knowledge you need to immediately begin analyzing psychophysiological data with MLM.

9:00 a.m.-4:30 p.m.

Pre-Conference Workshop 3
Autonomic Nervous System Laboratory Workshop
Frank Wilhelm, University of Salzburg

The multidimensional nature of peripheral physiological data and interactions between different signals represent a methodological and computational challenge in psychophysiological science. ANSLAB (short for Autonomic Nervous System Laboratory) is an integrated software suite programmed in MATLAB that supports data visualization, artifact detection, data reduction, automated processing, and statistical analysis for a large range of cardiovascular (including HRV, ICG), electrodermal, respiratory, and muscular (including eye-blink startle) measures. In this workshop we will show how to analyze data using ANSLAB, both in its free and fully licensed version (see SPR Software Repository and www.anslab.net).

The workshop will be presented by Frank Wilhelm and Michael Liedlgruber, University of Salzburg, Austria, and consists of a set of demonstrations and hands-on exercises (please bring your notebook computers).

12:00 noon-5:00 p.m.
Board of Directors Meeting

2:30 p.m.-7:30 p.m.
Registration

6:00 p.m.-8:00 p.m.
Opening Reception, Exhibits Open, and Poster Session I

Thursday, October 12, 2017

7:30 a.m.-5:00 p.m.
Registration

8:30 a.m.-10:00 a.m.
Symposium 1
EXPECT THE WORST! ANXIETY, EXPECTATIONS, AND SENSORY THREAT PROCESSING

8:30 a.m.-10:00 a.m.
Symposium 2
RECENT DEVELOPMENTS IN FRONTAL EEG ASYMMETRY RESEARCH

8:30 a.m.-10:00 a.m.
Symposium 3
EXTRACTING REGULARITIES FROM SOUND SEQUENCES
8:30 a.m.-10:00 a.m.  
**Symposium 4**  
**THE LONG-TERM OUTCOMES OF SPORT-RELATED BRAIN INJURIES: INSIGHTS FROM PSYCHOPHYSIOLOGICAL RESEARCH**

9:30 a.m.-8:00 p.m.  
**Exhibits Open**

10:00 a.m.-10:30 a.m.  
**Refreshment Break**

10:30 a.m.-12:00 noon  
**Symposium 5**  
**MAPPING A SPECTRUM OF AFFECTIVE REACTIVITY IN THE INTERNALIZING DISORDERS**

10:30 a.m.-12:00 noon  
**Symposium 6**  
**ELECTRO- AND MAGNETOCORTICAL MEASURES OF DEPRESSION: POTENTIAL RISK AND TREATMENT RESPONSE PREDICTORS**

10:30 a.m.-12:00 noon  
**Symposium 7**  
**COMPUTATIONAL MODELING OF MISMATCH NEGATIVITY (MMN)**

10:30 a.m.-12:00 noon  
**Symposium 8**  
**FROM BENCH TO BEDSIDE: ELECTROPHYSIOLOGICAL ADVANCEMENTS IN PSYCHIATRIC CARE**

12:00 noon-1:15 p.m.  
**Lunch Break** (on your own)

1:15 p.m.-1:30 p.m.  
**Welcome Remarks**

1:30 p.m.-2:30 p.m.  
**Invited Address**  
*Brain Structure and Dynamics of Language Processing*  
Angela D. Friederici  
Director, Vice-President of Max Planck Society, Department of Neuropsychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

2:30 p.m.-3:00 p.m.  
**Refreshment Break**

3:00 p.m.-4:30 p.m.  
**Symposium 9**  
**BETA BAND MOTOR OSCILLATIONS AS A MARKER OF DECISION MAKING**

3:00 p.m.-4:30 p.m.  
**Symposium 10**  
**LIAR LIAR, PANTS ON FIRE? PSYCHOPHYSIOLOGICAL DECEPTION DETECTION UNRAVELED**

3:00 p.m.-4:30 p.m.  
**Symposium 11**  
**TOWARD A PSYCHOPHYSIOLOGICAL UNDERSTANDING OF ANGER- AND AGGRESSION-RELATED PROCESSES**

4:40 p.m.-6:10 p.m.  
**Symposium 12**  
**USING OSCILLATORY BRAIN ACTIVITY AS A WINDOW INTO THE NEUROPHYSIOLOGY OF SELECTIVE ATTENTION**

4:40 p.m.-6:10 p.m.  
**Symposium 13**  
**COGNITIVE BIASES IN HEALTH AND PSYCHIATRIC CONDITIONS– LINKING OPTIMISM AND NEGATIVE BIASES**

4:40 p.m.-6:10 p.m.  
**Symposium 14**  
**SOCIAL CUES IN HUMAN VOICES**

4:40 p.m.-6:10 p.m.  
**Symposium 15**  
**VASCULAR FACTORS IN HEALTH AND DISEASE: AN INTRODUCTION TO INNOVATIVE METHODS FOR PSYCHOPHYSIOLOGICAL RESEARCH**

6:10 p.m.-8:10 p.m.  
**Poster Session II**

Time to be Confirmed  
**The Psychophysiology Board of Associate Editors Meeting**

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**Friday, October 13, 2017**

8:30 a.m.-5:00 p.m.  
**Registration**

8:30 a.m.-10:00 a.m.  
**Symposium 16**  
**CONSTRUCTING RISKIER TESTS OF THEORY, LINKING PSYCHOLOGICAL AND BIOLOGICAL PHENOMENA, AND INTRODUCING A NEW MECHANISTIC PHILOSOPHY OF SCIENCE**

8:30 a.m.-10:00 a.m.  
**Symposium 17**  
**GETTING SOCIAL–THE IMPACT OF SOCIAL PRESENCE ON OUR PERCEPTION, THOUGHTS, AND BEHAVIOR**

8:30 a.m.-10:00 a.m.  
**Symposium 18**  
**INHIBITORY CONTROL AS A BIOBEHAVIORAL CONSTRUCT: NEURAL MECHANISMS, NEURODEVELOPMENTAL PROCESSES, AND RELEVANCE TO EXTERNALIZING PSYCHOPATHOLOGY**

8:30 a.m.-10:00 a.m.  
**Symposium 19**  
**TIME-FREQUENCY, SOURCE, AND CONNECTIVITY APPROACHES TO STUDY DYNAMIC RELATIONS BETWEEN MONITORING, CONTROL, AND ANXIETY ACROSS DEVELOPMENT**

9:30 a.m.-8:00 p.m.  
**Exhibits Open**

10:00 a.m.-10:30 a.m.  
**Refreshment Break**
Saturday, October 14, 2017

8:30 a.m.-12:30 p.m.
Registration

8:30 a.m.-10:30 a.m.
Poster Session IV

10:30 a.m.-11:00 a.m.
Early Career Award Address

11:00 a.m.-12:00 p.m.
Presidential Address

12:15 p.m.-2:15 p.m.
General Business Meeting and Luncheon (ticketed event)

2:30 p.m.-3:30 p.m.
Invited Address
The Future of Cognitive Neuroscience
Russell A. Poldrack
Albert Ray Lang Professor, Department of Psychology and Director, Stanford Center for Reproducible Neuroscience, Stanford University, Stanford, CA USA

3:40 p.m.-5:10 p.m.
Symposium 27
Impaired Processing of Rewards and Punishments in Affective Disorders During Anticipation and Consummation

3:40 p.m.-5:10 p.m.
Panel Discussion 28
Brain, Mind, and Consciousness: Progress and Pitfalls

3:40 p.m.-5:10 p.m.
Symposium 29
Using Physiological Methods to Assess the Effects of Socialization Agents and Processes on Child Development

3:40 p.m.-5:10 p.m.
Symposium 30
Hidden Secrets Within the Averaged ERP Waveform: Meaningful Trial-by-Behavior Variance

5:10 p.m.-9:00 p.m.
Free Time to Enjoy Vienna

9:00 p.m.-12:00 midnight
Saturday Night Social

Sunday, October 15, 2017

9:00 a.m.-12:00 noon
Board of Directors Meeting