

57th SPR Annual Meeting
October 11-15, 2017

The Hofburg
Vienna, Austria

www.sprweb.org
meetings@sprweb.org



SOCIETY FOR PSYCHOPHYSIOLOGICAL RESEARCH

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 psychophysiologicalists 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 psychophysiologicalists, 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.

Paper Session

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

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

10:30 a.m.-12:00 noon

Presidential Symposium

COMPUTATIONAL NEUROSCIENCE AND ITS INTERSECTION WITH THE NIMH RESEARCH DOMAIN CRITERIA (RDOC) INITIATIVE

10:30 a.m.-12:00 noon

Invited Symposium

RECENT PROGRESS IN COMPARATIVE SOCIAL PSYCHOPHYSIOLOGY

12:00 noon-1:30 p.m.

Women in Science and Education (WISE) Luncheon

(Register for the luncheon on the SPR registration form.)

12:00 noon-1:30 p.m.

Lunch Break (on your own)

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

Invited Address

The Anterior Cingulate Cortex in Learning and Changing Behavior

Matthew Rushworth

Department of Experimental Psychology and Centre for Functional Magnetic Resonance Imaging of the Brain, University of Oxford, Oxford, UK

2:30 p.m.-3:00 p.m.

Refreshment Break

3:00 p.m.-4:30 p.m.

Paper Session

3:00 p.m.-4:30 p.m.

Symposium 20

NEW COMPUTATIONAL APPROACHES TO P300 RESEARCH IN HUMANS

3:00 p.m.-4:30 p.m.

Symposium 21

FACE AND PERSON PERCEPTION AS A FUNCTION OF SOCIAL LEARNING

3:00 p.m.-4:30 p.m.

Symposium 22

EMERGING PERSPECTIVES ON EMOTIONAL STIMULUS PROCESSING

4:40 p.m.-6:10 p.m.

Symposium 23

CURRENT ATTEMPTS AT UNDERSTANDING P3b's FUNCTION

4:40 p.m.-6:10 p.m.

Symposium 24

MORE THAN JUST NOISE: INDIVIDUAL DIFFERENCES IN FEAR ACQUISITION AND EXTINCTION

4:40 p.m.-6:10 p.m.

Symposium 25

FACE PERCEPTION: INDIVIDUAL DIFFERENCES AND SPECIAL POPULATIONS

4:40 p.m.-6:10 p.m.

Symposium 26

BARORECEPTOR INFLUENCES ON AFFECTIVE AND NOCICEPTIVE PROCESSING

6:10 p.m.-8:10 p.m.

Poster Session III

10:00 p.m.

Student Social

BEFANA GmbH (Club Stadl)

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