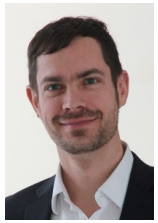
Keynote Speakers

Prof. Dominik R. Bach – University of Zurich



Dominik Bach is Professor for Clinical Psychiatry Research at University of Zurich. He is a trained psychiatrist, and obtained an MSc and PhD in Experimental Psychology. His group's current research interest is the computational and comparative neuroscience of emotion, and its application to psychiatric disorders.

Prof. Ray J. Dolan – University College London

Ray Dolan is Mary Kinross Professor of Neuropsychiatry and Director of the Wellcome Trust Centre for Neuroimaging, at University College London. His research addresses the neurobiology of emotion and decision making, how emotion impacts on cognition and its aberrant expression in disease. His work pioneered in combined use of functional neuroimaging, computational modeling, and neuropharmacology.

Prof. Tiago V. Maia – University of Lisbon & Columbia University

Tiago Maia is Professor at the School of Medicine, University of Lisbon (Portugal) and Professor of Clinical Neurobiology (in Psychiatry) at Columbia University. Research in his lab focuses on the integrated use of computational modeling, brain imaging, and behavioral experimentation to understand the neural bases of several psychiatric disorders.

Prof. Klaas Enno Stephan – University of Zurich & ETH Zurich

Klaas Enno Stephan is Professor and founding director of the Translational Neuromodeling Unit (TNU) at the University of Zurich and ETH Zurich. Integrating computational scientists and clinicians under one roof, the mission of the TNU is to develop and validate mathematical models for inferring subject-specific mechanisms of brain diseases from behavioural and neuroimaging measurements.

Prof. Philippe N. Tobler – University of Zurich

Philippe Tobler is Professor for Neuroeconomics and Social Neuroscience at the University of Zurich. He studies the neural basis of reward, learning, economic decision making and social behaviour. To do so he previously recorded from single dopamine neurons and now uses human neuroimaging.

REGISTRATION & ABSTRACT SUBMISSION: **WWW.COMPUTATIONALPSYCHIATRY.CH**

Psychiatry under the Lens of Algorithms

First Zurich Computational Psychiatry Meeting

May 19th/20th, 2014

Psychiatrische Universitätsklinik Zürich

www.computationalpsychiatry.ch

KJPD Universitätsklinik Kinder- und Jugendpsychiatrischer Dienst des Kantons Zürich

Psychiatrische Universitätsklinik Zürich

Universität Zürich[UZH]

What is Computational Psychiatry?

Computational Psychiatry is an emerging field at the intersection between Neuroscience and Psychiatry. It is highly interdisciplinary bringing together researchers from Psychiatry, Psychology, Cognitive Neuroscience, Neurobiology, Neuropharmacology, Neuroeconomics, Neuroinformatics, Mathematics, Physics, and Machine Learning. The aim is to build models of the neural and cognitive processes that underpin psychiatric disorders. This endeavor is important because it goes beyond the current, entirely descriptive, focus on nosology towards a mechanistic understanding and treatment of psychiatric disorders.

Scope of the Conference

A major challenge of computational psychiatry is to bring together the expertise from different disciplines to create a common language that elucidates the mechanisms of psychiatric disorders. For example, clinicians have studied the phenomenology of psychiatric disorders for several decades, but only a minority described these impairments in mathematical terms. Mathematicians and machine learning experts, on the other hand, build parsimonious and mathematically-sound models, but lack knowledge of psychiatric impairment. Moreover, both disciplines can benefit from the rigorous experimental designs emerging from Neuroeconomics and the advances in Neuropharmacology and Neurobiology, such as the impact of genetic markers on neurotransmitter systems and cognitive functioning.

We believe it is absolutely necessary to bring together these different disciplines and to engage them in an exchange of ideas driven by a singular goal: to build models of neural and cognitive phenomena relevant to psychiatric disorders. Such an exchange can enhance mutual understanding, inspire the re-evaluation of research objectives, and kindle the beginning of novel collaborative projects.

Program

Monday, May 19th, 2014

08:30-09:30	*Registration*
09:30-09:45	*Welcome Address*
09:45-10:45	*Opening lecture:* **Klaas E. Stephan**
	Coffee Break
11:15-12:15	Short talks
12:15-14:00	Poster session and Lunch
14:00-15:00	*Keynote:* **Tiago V. Maia**
	Coffee Break
15:30-16:30	Short talks
16:30-17:15	*Keynote:* **Philippe N. Tobler**

Tuesday, May 20th, 2014

09:00-09:15	*Welcome Address*
09:15-10:00	*Keynote:* **Dominik R. Bach**
	Coffee Break
10:30-11:30	Short talks
11:30-12:15	*Panel Session with Keynotes*
12:15-14:00	Poster session and Lunch
14:00-15:30	Short talks
	Coffee Break
16:00-17:00	*Keynote:* **Ray J. Dolan**
17:00	*Ceremony for Best Posters*

Venue

Psychiatrische Universitätsklinik Zürich, Lenggstrasse 31, 8032 Zürich

Lecture Hall Z1 03

Conference Fees

UZH/ETHZ Members: free

External Participants: CHF 150.-

This conference is generously supported by a Graduate Campus Grant, University of Zurich.