

April 5, 2018

09:00 - 09:30 Registration & Welcome Address

**Session 1: INTRODUCTION: principles of Bayesian inference**

09:30 - 10:30 Rafal Bogacz (University of Oxford): *Modelling Bayesian inference by cortical circuits in the predictive coding framework*

10:30 - 11:15 Laurent Perrinet (Institut de Neurosciences de la Timone): *Principles and psychophysics of Active Inference*

11:15 - 11:30 Coffee break

11:30 - 12:30 Posters

12:30 - 14:00 Lunch

**Session 2: PERCEPTION IN THE FACE OF UNCERTAINTY**

14:00 - 14:45 Pascal Mamassian (Ecole Normale Supérieure-Paris & CNRS): *Measuring the sensitivity of visual confidence*

14:45 - 15:30 Simone Vossel (Forschungszentrum Jülich & University of Cologne): *Using Bayesian models to investigate attentional mechanisms in the human brain*

15:30 - 15:45 Coffee break

15:45 - 16:30 Emmanuel Dauce (Institut des Systèmes): *Optimizing scene decoding with "three-party" generative models*

16:30 - 17:15 Dora Angelaki (Baylor College of Medicine): *Brain dynamics in a firefly catching task*

April 6, 2018

**Session 3: DECISION MAKING BEYOND CLASSICAL REINFORCEMENT LEARNING**

09:00 - 09:45 Kelly Diederer (University of Cambridge): *Adaptive coding in the dopaminergic system in health and disease*

10:30 - 11:15 David Thura (University of Montreal): *Brain circuits of urgent decisions for action*

09:45 - 10:30 Rafal Bogacz (University of Oxford): *Learning the payoffs and costs of actions*

11:15 - 11:45 Coffee break & Posters

11:45 - 12:45 **Short selected presentations of young researchers**

12:45 - 15:00 Lunch & Posters

**Session 4: CONTEXT-DEPENDENT MOTOR BEHAVIOR**

15:00 - 15:45 Lionel Rigoux (Max Planck Institute): *Pathology as maladaptive optimality: A computational dissection of decision and action in OCD and Parkinson's disease*

15:45 - 16:30 Frédéric Crevecoeur (Université Catholique de Louvain): *Rapid delay compensation and state estimation following disturbances to the limb*

16:30 - 17:15 Opher Donchin (Ben-Gurion University of the Negev): *Decomposing the motor system*