

# BRAIN MIND INSTITUTE SYMPOSIUM

## CONTROLLING BEHAVIOR IN ANIMALS AND ROBOTS

MONDAY 3TH DECEMBER 2018

- 08:20-08:50** Registration
- 08:50-09:00** Opening
- Session 1**     **Embodied robots and computational models**  
Chair             Auke Ijspeert
- 09:00-09:30** **Yulia Sandamirskaya** (University of Zurich, Zurich, Switzerland)  
“Neuronal Dynamics of Action Representation, Execution, and Learning”
- 09:30-09:40     Discussion
- 09:40-09:55** Short Talk: TBD
- 09:55-10:00     Discussion
- 10:00-10:30** **Mitsuo Kawato** (ATR, Kyoto, Japan)  
“Decoded neurofeedback and consciousness for learning from a small sample”
- 10:30-10:40     Discussion
- 10:40-11:10     Coffee break
- 11:10-11:40** **Terry Stewart** (University of Waterloo, Waterloo, Canada)  
“Designing and Learning Cognitive Control with a Spiking Model of the Cortex-Basal  
Ganglia-Thalamus Loop”
- 11:40-11:50     Discussion
- 11:50-12:05     Short Talk: TBD
- 12:05-12:10     Discussion
- 12:10-12:40** **Barbara Webb** (University of Edinburgh, Edinburgh, UK)  
TBD
- 12:40-12:50     Discussion
- 12:50-14:00     Lunch & Poster Session
- Session 2**     **Decision making and action selection**  
Chair             Carl Petersen
- 14:00-14:30** **Tony Prescott** (University of Sheffield, Sheffield, UK)  
TBD
- 14:30-14:40     Discussion
- 14:40-14:55     Short Talk: TBD
- 14:55-15:00     Discussion
- 15:00-15:30** **Daniel Huber** (University of Geneva, Geneva, Switzerland)  
“Cortical circuit dynamics underlying neuroprosthetic learning.”
- 15:30-15:40     Discussion

15:40-16:10 Coffee break

**16:10-16:40 Rui Costa** (Columbia University, New York, USA)  
TBD

16:40-16:50 Discussion

16:50-17:05 Short Talk: TBD

17:05-17:10 Discussion

**17:10-17:40 Stefan Schaal** (University of Southern California, Los Angeles, USA)  
TBD

17:40-17:50 Discussion

18:00-21:00 **Poster Session / Wine & Cheese**

## TUESDAY 4TH DECEMBER 2018

**Session 3** **Motor control**  
Chair **Pavan Ramdya**

**08:30-09:00 Silvia Arber** (Biozentrum, University of Basel, Basel, Switzerland)  
"Circuit Solutions for Programming Actions"

09:00-09:10 Discussion

**09:10-09:25** Short Talk: TBD

09:25-9:30 Discussion

**9:30-10:00 Silvia Daun** (University of Cologne, Cologne, Germany)  
"Mathematical modelling of the neural control of 6-legged locomotion"

10:00-10:10 Discussion

**10:10-10:40** Coffee break

**10:40-11:10 Mackenzie Mathis** (Harvard University, Cambridge, USA)  
"Dissecting the circuits of motor adaptation in mice"

11:10-11:20 Discussion

**11:20-11:35** Short Talk: TBD

11:35-11:40 Discussion

**11:40-12:10 Ansgar Buschges** (University of Cologne, Cologne, Germany)  
TBD

12:10-12:20 Discussion

**12:20-12:30** Final - common discussion and farewell

**12:30** Possibility for Lunch at EPFL