



# The Ninth Computational Motor Control Workshop May 9, 2013

W. A. Minkoff Senat Hall, BGU Marcus Family Campus,  
Beer-Sheva, Israel



Zlotowski Center For Neuroscience

Department of Biomedical Engineering and  
the Zlotowski Center for Neuroscience at Ben-Gurion

## Wednesday, May 8

### Last day of EU C7 workshop

See [www.bgu.ac.il/cmfw](http://www.bgu.ac.il/cmfw) for links and details

- 9:00-17:00 Hike to Judean lowland starts from Ma'ale Hachamisha hotel  
Guide Eitan Krovovski
- 18:00 Festive Dinner

## Thursday, May 9

- 8:30-8:50 Registration, Poster placement and coffee
- 8:50-9:00 Opening Remarks **Amir Karniel**, BGU, Head of the organizing committee

### Cerebellum: single units

Chair: Maarten Frens, Erasmus MC, Netherlands

- 9:00-9:30 **Javier Medina**, University of Pennsylvania, USA  
"Cerebellar control of movement timing: insights from eyeblink conditioning"
- 9:30-10:00 **Erik De Schutter**, OIST, Japan  
"Coding in silence: cerebellar Purkinje cell pauses control eye cascade endings"
- 10:00-10:30 **Tim Ebner**, UMN, USA  
"Still Searching with an Electrode for Internal Models in the Cerebellum: Encoding Kinematics, Errors and Learning"
- 10:30-10:40 Discussion
- 10:40-11:20 Coffee break and Posters

### The Clinic: From Stimulation to Therapy

Chair: Miriam Zacksenhaus, Technion, Israel

- 11:20-11:50 **Chris Miall**, University of Birmingham, UK  
"Stimulating the cerebellar contribution to cognition"
- 11:50-12:20 **Opher Donchin**, BGU  
"Motor hierarchy in the cortex and cerebellum"

- 12:20-12:50 **Simona Bar-Haim**, BGU  
"Training teenagers with cerebral palsy on a split-belt treadmill: insights to guide rehabilitation"
- 12:50-13:00 Discussion
- 13:00-14:30 Lunch and Posters

### Motor control on multiple levels

Chair: Tzvi Ganel, BGU

- 14:30-15:00 **Lior Shmuelof**, Weizmann Institute, Israel  
"The puzzle of motor learning: from skill learning to adaptation"
- 15:00-15:30 **Reza Shadmehr**, Johns Hopkins University, USA  
"Movement vigor, impulsivity, and the cost of waiting in the human brain"
- 15:30-16:00 **Joern Diedrichsen**, UCL, UK  
"Adaptation vs. Skill learning: Lessons from visual rotation and mirror reversal learning."
- 16:00-16:10 Discussion
- 16:10-16:20 Poster awards  
Sponsors: Sensegraphics/Geomagic, NanInstruments, AlphaOmega
- 16:20-16:50 Coffee break

### Sensory-motor systems

Chair: Opher Donchin, Ben-Gurion University

- 16:50-17:20 **Ilan Lampl**, Weizmann Institute, Israel  
"Adaptation and coding of stimulus intensity in the somatosensory system"
- 17:20-17:50 **Maarten Frens**, Erasmus MC, Netherlands  
"Enhancing Motor Learning"
- 17:50-18:20 **Andrew Jackson**, Newcastle University, UK  
"Optimizing control of Brain-Machine Interfaces"
- 18:20-18:30 Discussion
- 19:00 Diner