**Wednesday, May 8**

**Last day of EU C7 workshop**

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

- 9:00-17:00 Hike to Judean lowland starts from Ma'ale Hachamisha hotel
  Guide Eitan Krokovski
- 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: Rich Ivry, Berkeley

- 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, NanoInstruments, AlphaOmega
- 16:20-16:50 Coffee break

**Sensory-motor systems**

Chair: Gideon Inbar, Technion

- 16:50-17:20 Ilan Lampi, Weizmann Institute, Israel
  "Adaptation and coding of stimulus intensity in the somatosensory system"

- 17:20-17:50 Sandro Mussa-Ivaldi, Northwestern University, USA
  "Motor synergies: what are they useful for?"

- 17:50-18:20 Andrew Jackson, Newcastle University, UK
  "Optimizing control of Brain-Machine Interfaces"

- 18:20-18:30 Discussion
- 19:00 Diner
Invitation Letter and Call for Posters, the ninth BGU-CMCW May 9, 2013

Deadline for abstract submission - March 25

Dear Colleagues,

In what has now become a tradition, we wish to invite you to participate in the ninth annual Ben-Gurion University Workshop on Computational Motor Control on May 9th, 2013, in the W. A. Minkoff Senate Hall at Ben-Gurion University of the Negev, Beer-Sheva, Israel. The following information is also available on our website: http://www.bgu.ac.il/cmcw

Thank you for your attention,
Opher Donchin and Amir Karniel
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Overview: The nervous system analyses sensory information and orchestrates motor commands. In so doing, it faces challenges that it shares with many artificially engineered systems. In the spirit of the classic field of cybernetics, the field of computational motor control makes scientific and technological progress simultaneously by exploring the differences between artificial control theory and biological motor control. Computational motor control is a multidisciplinary research program in which mathematics, engineering, biology, medicine and the cognitive neurosciences all play important roles. This workshop will bring together world leaders in the field of computational motor control including Israeli researchers and distinguished guests. The goal will be to learn about the current state of the field and to identify the directions that will provide the medical and scientific breakthroughs of the next decades.

Call for Posters: The posters will be available throughout the day near the lecture hall to facilitate fruitful discussions. Please submit a one-page abstract of up to 300 words by March 25th through the website or by email to cmcw@bgu.ac.il with the subject heading "CMCW abstract submission". An email should clearly contain your name and affiliation. Notification of acceptance and abstract books will be mailed out on April 10th. In addition, all accepted abstracts will appear on our website prior to the conference. Poster's should have a maximum width of 90 cm and a maximum height of 120 cm.

Best Poster Award: The award committee will choose the best poster(s) which will be announced at the end of the day. The Best Poster Award Committee will be chaired by Opher Donchin, Ben-Gurion University. To be considered for the best poster award, authors must submit a file with their poster to the Best Poster Award Committee by April 25th, 2013. The poster can be submitted in PDF, TIFF, or Power Point formats by e-mail to cmcw@bgu.ac.il. Please use the subject heading "CMCW best poster submission" and include in the text of the message the name of the main
author.
The Best Poster Award Committee members: Opher Donchin, Lior Shmueloff, Sandro Mussa-Ivaldi.

The Best Poster Award Sponsors:
- Alpha Omega
- SenseGraphics / Geomagic
- NanInstrurments

Travel Award: In special cases we will also consider a travel award to partially cover the expenses of international researchers/students. The criteria for the travel award will be: (i) The scientific quality of the proposed poster and its relevance to the topic of the workshop (ii) An interest in pursuing a PhD, post doc or faculty position at Ben-Gurion University. Those interested in receiving a travel award should submit an abstract for the poster they will submit and a short description of their circumstances by March 25 th by e-mail to cmcw@bgu.ac.il with the subject heading “CMCW travel award.”

Tour to the Judean lowland: On Wednesday, May 8 th, we plan a hike to the Judean lowland. The hike will leave from Ma'ale Hachamisha hotel at 8:30. Anyone who want to take a part in the hike is asked to arrive at the hotel on the morning of May 8. Please be sure to indicate your interest in the tour in the registration forms. The payment form will be sent by e-mail.

Dinners: We will have a festive welcome dinner on the evening of May 8, before the workshop that will take a place near Beit-Shemesh. People interested in joining the diner, but were not on the hike, will be picked up at the Beit Shemesh railway station at ~18:00 by the bus. Speakers and chairmen will be guests of the workshop at the dinner. For others wishing to join us, the dinner will be subsidized and will cost no more than 100 NIS per person. We will also have a more modest dinner and discussion in the evening following the workshop that will be payed by the participants.

Registration: Please register on our website http://www.bgu.ac.il/cmcw before March 25 th. Registration is mandatory but free. Space may be limited. Please indicate in your registration whether you are interested in participating in the hike, the welcome dinner and the discussion dinner.

Sponsors:
- The President, Ben-Gurion University
- The Zlotowski Center for Neuroscience, BGU
- The Dean of the Faculty of Health Sciences
- The Dean of the Faculty of Engineering