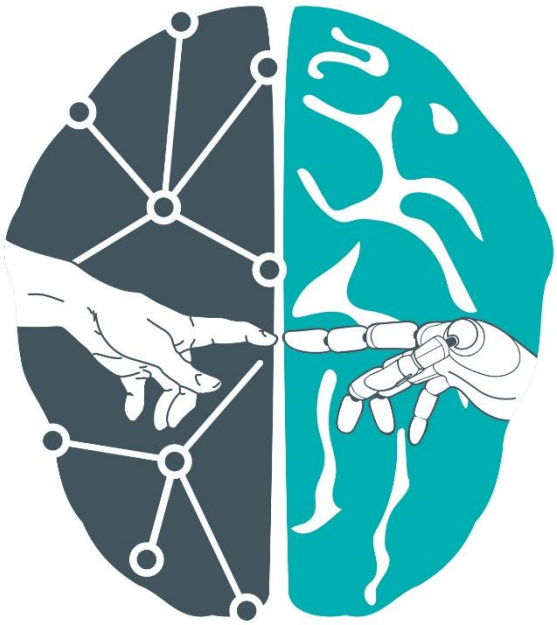
The 14th



KCMCW

Karniel Computational Motor Control Workshop

Ben-Gurion University of the Negev

Computational motor control is a multidisciplinary research field in which mathematics, engineering, biology, medicine and the cognitive neurosciences play important roles. This workshop brings together world leaders in the field of computational motor control, including Israeli researchers and distinguished guests. The goal is to learn about the current state of the field and to identify the challenges and research directions that will lead to scientific and medical breakthroughs in the next decades.

The workshop is named after Professor Amir Karniel who passed away on June 2nd 2014 at the age of 47. Amir, a leading researcher in the field and head of the biomedical engineering department, was a dear mentor, colleague and teacher. Amir was a man of vision and a pioneer in motor control research in Israel and internationally. He organized this workshop, together with Professor Opher Donchin, from its founding, in June, 2005, until the 10th workshop in June, 2014.

The organizers:

Dr. Ilana Nisky – conference chair

Dr. Lior Shmuelof – program chair

Prof. Opher Donchin

Orit Cohen -Rothman

Avia Lavon

Program committee:

Dr. Lior Shmuelof, Ben-Gurion University of the Negev

Prof. Opher Donchin, Ben-Gurion University of the Negev

Dr. Ilana Nisky, Ben-Gurion University of the Negev

Prof. Sandro Mussa-Ivaldi, Northwestern University

Prof. Ehud Ahissar, Weizmann Institute of Science

Prof. Eilon Vaadia, Hebrew University

Dr. Nicole Malfait, Aix Marseille Université

Sponsors:

Ben-Gurion University of the Negev – President

Ben-Gurion University of the Negev – Rector

Ben-Gurion University of the Negev – Faculty of Engineering

Ben-Gurion University of the Negev – Faculty of Health Sciences

Zlotowski Center for Neuroscience

New Biotechnology – NBT

Workshop Program

Tuesday, March 13

Lab visits- 13:00 – 16:00

Physiotherapy

- The laboratory for Rehabilitation and Motor Control of Walking, Simona Bar-Haim
- Cognition Aging and Rehabilitation laboratory, Shelly Levy-Tzedek
- Schwartz Movement Analysis & Rehabilitation Laboratory, Itzik Melzer

Biomedical engineering

- Biomedical Robotics Laboratory, Ilana Nisky
- Motor Learning Laboratory, Opher Donchin

Cognition

- Brain and Action Laboratory, Lior Shmuelof

Labs tour will start from Student Center (near bank Hapohalim) at 13:00

Evening Special Talk

- 17:00 – 18:00 reception
- 18:00 – 19:00 – Miles Kessler

- **Festive dinner 19:30**

Wednesday, March 14

- 08:20-08:50 Registration, Poster placement and coffee
- 08:50-09:00 Greetings by Ilana Nisky, Head of the organizing committee

Session 1 – Motor control

Chair: TBD

- 09:00-09:30 Andrea Davella, University of Messina , IT
- 09:30-10:00 Elizabeth Torres, Rutgers University, USA
- 10:00-10:30 Maura Casadio, University of Genova, IT
- 10:30-10:40 Discussion
- 10:40-11:20 Coffee break

Session 2– Oscillatory activity in motor control

Chair: TBD

- 11:20-11:50 Bernadette van Wijk, University College of London, UK
- 11:50-12:20 Simon Little, Oxford University, UK
- 12:20-12:50 Nicole Malfait, Aix Marseille Université, France

- 12:50-13:00 Discussion
- 13:00-13:30 Lunch
- 13:30-14:30 **Posters**

Session 3 – Keynote session

Chair: TBD

- 14:30 Greetings Prof. Rivka Carmi, President of Ben-Gurion University of the Negev, in the presence of the Family of Prof. Karniel
- 14:40-15:10 John Rothwell, University College of London
- 15:10-15:40 Prof. Amir Karniel Memorial Young Researcher Lecture Avital Hahamy, Weizmann Institute of Science, IL
- 15:40-16:10 Tony Prescott, University of Sheffield, UK
- 16:10-16:20 Discussion
- 16:20-16:40 Coffee break and posters

Session 4– Motor learning

Chair: TBD

- 16:40-17:10 Opher Donchin, Ben-Gurion University
- 17:10-17:40 Carsten Mehring, Albert-Ludwigs-University Freiburg, GE
- 17:40-17:50 Discussion
- 17:50-18:00 Best poster awards sponsored by NBT

19:00 Dinner

Thursday, March 15

Hike in the Negev