



The 12th Karniel Computational Motor Control Workshop June 19-21, 2016

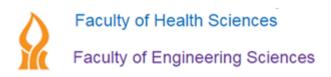
W. A. Minkoff Senate Hall, BGU Marcus Family Campus, Beer-Sheva, Israel

Department of Biomedical Engineering,
Zlotowski Center for Neuroscience at Ben-Gurion
ABC Cognitive Robotics Center
supported by Leona M. and Harry B. Helmsley Charitable Trust

Sunday, June 19

Lab visits		
☐ 15:00-17:00 Motor control labs at BGU:		
<u>Physiotherapy</u>		
☐ 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		
Industrial Engineering and cognition		
☐ Biomechanics and robotics Laboratory, Raziel Riemer		
☐ Telerobotics laboratory, Sigal Berman		
☐ Brain and Action Laboratory, Lior Shmuelof		
Labs tour will start from Student Center (near bank Hapohalim) at 15:00		
Festive dinner		
☐ 18:00 Location "Lola", Friend café		
☐ Dr Eilat Almagor, The Jerusalem Academy of Music and Dance, Israel		
& Prof Dorit Aharonov, School of Computer Science and engineering, The Hebrew		
University, Jerusalem		
"Awareness Through Movement as a guide to Mathematical Learning"		



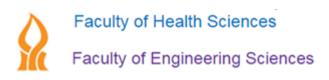




Monday, June 20

	08:30-08:50 Registration, Poster placement and coffee
	08:50-09:00 Opening Remarks Prof. Rivka Carmi , President of Ben-Gurion University
Sessio	n 1 – Motion Planning
	Sandro Mussa-Ivaldi, Rehabilitation Institute of Chicago, USA
	09:00-09:30 Bjöern Brembs, Universität Regensburg, Germany
	"The common biology of motor learning, operant conditioning and model-free learning"
	Keynote Lecture
	09:30-10:00 Lior Shmuelof, Ben-Gurion University, Israel
	"On the fly planning of pre-planned curved trajectories"
	10:00-10:30 Einat Couzin, Konstanz university, Germany
	"Control of 6-legged locomotion"
	10:30-10:40 Discussion
	10:40-11:20 Coffee break
Sessio	n 2 - Rehabilitation
Chair:	Mindy Levin, McGill University, Canada
	11:20-11:50 Mark Latash, Pennsylvania State University, USA
	"Impaired control of movement stability in neurological patients"
	11:50-12:20 Tamar Weiss, University of Haifa, Israel
	"A multi-dimensional approach to evaluate performance of complex daily activities of young and
	older adults in a simulated mall"
	12:20-12:50 Darcy Reisman, University of Delaware, USA
	"Locomotor Adaptation and Learning after Stroke"
	12:50-13:00 Discussion
	13:00-13:30 Lunch
	13:30-14:30 Posters
Sessio	n 3 - Motor Control
Chair:	Anatol Feldman, University of Montreol, Canada
	14:30-15:00 Ron Meir, Technion, Israel
	"Optimal Neural Codes for Estimation and Control"
	15:00-15:30 Robert Scheidt, Marquette University, USA
	"Neural correlates of nonlinear multisensory integration during wrist stabilization"
	15:30-16:00 Prof. Amir Karniel Memorial Young Researcher Lecture
	Marc Deffains, Hebrew University, Israel
	"Computational physiology of Basal Ganglia & Parkinson's disease"
	16:00-16:10 Discussion
	16:10-16:40 Coffee break and posters







Session 4 – Locomotion Control

Chair:	Sigal Berman, Ben-Gurion University, Israel
	16:40-17:10 Raziel Riemer, Ben-Gurion University, Israel
	"Biomechanical energy harvesting from human motion: Theory, design, and results"
	17:10-17:40 Mati Joshua, Hebrew University, Israel
	"Linking the dynamics of activity in the frontal eye field to the planning of action selection"
	17:40-17:50 Discussion
	17:50-18:00 Best poster awards
	Sponsors: NBT, AlphaOmega
	19:00 Dinner at "Avaz Hazahav" restaurant

Tuesday, June 21

Hike

An invitation to explore the ancient views within the beautiful landscape on a hike from The 'Jerusalem heals to Judea's Low lands. The core of the trip will be a 4-miles hike along 'Nahal HaMe'ara' (the cave wadi).