

The 24th Mediterranean Conference on Control and Automation (MED'16)

Workshop on Legged and Multi-modal Locomotion

Tuesday, June 21, 2016

Edessa Room, Divani Caravel Hotel, Athens, Greece

Organizers:

Evangelos G. Papadopoulos (NTUA)
Ioannis Poulakakis (U. of Delaware)
Dimitris P. Tsakiris (FORTH)

Program

9:30 – 9:45: Organizers – welcome, workshop overview

Bipedal locomotion – A

9:45 – 10:15: David V. Lee, Michael R. Isaacs and Tudor N. Comanescu, *University of Nevada Las Vegas*

Step length influences compliance in the human walking leg

10:15 – 10:45: Matan Karklinsky and Tamar Flash, *The Weizmann Institute of Science*
Conservation laws of optimization criteria for segmentation and time prediction of locomotion trajectories

10:45 – 11:15: Coffee break

Bipedal locomotion – B

11:15 – 11:45: Andre Seyfarth, *TU Darmstadt*
Locomotor sub-functions — A model-based approach for describing legged locomotion

11:45 – 12:15: Guoping Zhao, *TU Darmstadt*
Human leg adjustments to ground dropping perturbations during walking

12:15 – 12:45: Przemyslaw Kryczka, *The Italian Institute of Technology*
Real-time humanoid gait pattern generation optimizing footstep placement and timing

12:45 – 13:00: Poster brief presentations

13:00 – 14:30: Lunch break

Quadrupedal and polypedal locomotion

14:30 – 15:00: Benny Hochner and Guy Levy, *Hebrew University*
The embodied organization of arms coordination in octopus locomotion

15:00 – 15:30: Letizia Zullo, *The Italian Institute of Technology*
The octopus arm muscles: bio inspiration for soft robotics

15:30 – 16:00: K. Machairas, K. Koutsoukis, and Evangelos G. Papadopoulos, *NTUA*
Quadruped running using a flexible torso and momentum management techniques

16:00 – 16:30: Dimitris P. Tsakiris, *Institute of Computer Science – FORTH*
Bio-inspired motion control for soft-body pedundulatory robotic locomotors

16:30 – 16:55: **Poster session**

16:55 – 17:00: Organizers – closing remarks