

OVERVIEW

Wednesday, July 27th 2016

Site: Faculty of Human Kinetics, University of Lisbon

Registration for Workshop attendees 13:30 - 15:00

novel Workshops 14:00 - 18:00

Site: Top floor sun-terrace

Blue Bar, Hotel Baía, Cascais

Registration 19:00 - 21:00

Welcome Reception 20:00 - 22:00

Friday, July 29th 2016

Site: Sintra-Cascais National Park

Bus departure for the hiking group from Hotel Baía Cascais (via Oitavos Hotel) 8:30

Sports activities and networking during the day

Site: Bar do Guincho, Cascais

Evening event with barbecue on the beach 18:00

Bus departure from Guincho Beach to Hotel Baía Cascais (via Oitavos Hotel) 22:30

Venue:

University of Lisbon

Faculty of Human Kinetics

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Dafundo, Portugal

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Thursday, July 28th 2016

Site: Faculty of Human Kinetics, University of Lisbon

Registration 7:45 - 8:20

Scientific presentations 8:20

Lunch 13:10

Scientific presentations 14:10

Posters Session 16:15

Saturday, July 30th 2016

Site: Faculty of Human Kinetics, University of Lisbon

Scientific presentations 9:00

Lunch 13:30

Scientific presentations 14:30

MPP Award Presentations 16:40

Site: Verbasco Restaurant & Bar, Oitavos Hotel, Cascais

Bus departure from Hotel Baía Cascais 19:30

Conference dinner & awards ceremony 20:00

Bus departure from Hotel Oitavos to Hotel Baía Cascais 23:20

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Saturday, July 30th 2016

9:00 - 11:05	SESSION 5 Hand/Neuro Chair: Hillstrom, H
9:00 - 9:40	KEYNOTE LECTURE 4 Biochemistry by Numbers: Modeling and Simulation in Systems Biology Mendes, P, School of Computer Science, University of Manchester, UK and Center for Quantitative Biology, University of Connecticut Health Center, USA
9:40 - 9:55	Ligamento-Muscular Reflex Pattern after Stimulation of the Anterior Talofibular Ligament: An Electromyographic Study Rein, S, Sterling-Hauf, T, Kalpen, A, Hagert, E
9:55 - 10:10	Hand Force Measurement after a Surgical Correction of a Fracture of the Distal Radius Karnatz, J, Harms, C, Mittlmeier, T, Kalpen, A
10:10 - 10:35	art in science® Award Finalist Machine Learning as a Tool for Prediction of Incisere Effort in Power Grip Hahn, P, Mühldorfer-Fodor, M, Cenik, E, Mittlmeier, T, Prommersberger, K-J
10:35 - 10:50	Patients with Multiple Sclerosis: Foot Deformities Assessment Using Pedography Tsvetkova, TL, Stoliarov, ID, Petrov, AM, Ilves, AG, Mineev, KK, Shkilnuk, GG, Tartakovskiy, VN
10:50 - 11:05	Relationship between Foot Pressure Distribution and Ankle/Foot and Balance Impairments in Children with Down Syndrome Khallaf, ME, Alsalem, A
11:05 - 11:35	Coffee Break
11:35 - 13:30	SESSION 6 Foot Chairs: Sacco, ICN and Rosenbaum, D
11:35 - 12:00	art in science® Award Finalist Effect of Proprioceptive Insole on Indoor Rowing Performance: Feasibility of the Study and Preliminary Results Vieira, T, Botter, A, Gazzoni, M, Cipriano, F, Gastaldi, L, Sacco, ICN, Martelli, F, Giacomozzi, C
12:00 - 12:15	Relationship between Toe Strength and Dynamic Forefoot Pressures in Older People Mickle, KJ, Nester, CJ

12:15 - 12:30	The Effect of Cheilectomy and Moberg Osteotomy on First Metatarsophalangeal Joint Contact Mechanics Boyd, JL, Morgan, OJ, Koff, M, Ellis, SJ, Deland, JT, Hillstrom, HJ, Mootanah, R
12:30 - 12:45	Ankle Equinus: Does Ankle Joint Mobilisation Alter Plantar Pressures during Walking? Wholohan, A, Reed, L, Hurn, S, Wearing, S
12:45 - 13:00	Variability of Contact Mechanics Among First Metatarsophalangeal Joints Boyd, JL, Morgan, OJ, Koff, M, Ellis, SJ, Deland, JT, Hillstrom, HJ, Mootanah, R
13:00 - 13:15	Multiple Regression Analysis Reveals Association Between Joint Mobility and Plantar Load in the Normal-Arched Asymptomatic Foot Caravaggi, P, Leardini, A, Giacomozzi, C
13:15 - 13:30	Foot Loading as a Function of Foot Placement during Scoring Trials in Field Hockey de Lange, A
13:30 - 14:30	Lunch
14:30 - 16:40	SESSION 7 Joints Chair: Potthast, W
14:30 - 15:10	KEYNOTE LECTURE 5 Joint Arthroplasty in the 21st Century: Where Do We Stand? Morlock, MM, Institute of Biomechanics, TUHH Hamburg University of Technology, Germany
15:10 - 16:40	Special Session Intraarticular Load and Contact Stress Presentations and Discussion Mootanah, R, Schwachmeyer, V, Brüggemann, G-P, Hillstrom, HJ, Rosenbaum, D
16:40 - 17:25	MPP, Most Promising Proposal Award Chair: Kersting, UG
17:25 - 17:30	Closing Remarks Peter Seitz, António Veloso
19:30	Evening Event Bus departure from Hotel Baía Cascais to Verbasco Restaurant & Bar at Oitavos Hotel
20:00	Conference dinner, awards ceremony, music & entertainment at the Verbasco Restaurant & Bar at Oitavos Hotel in Cascais
23:20	Bus departure from Oitavos Hotel to Hotel Baía Cascais



Program

Expert Scientific Meeting
on Load Distribution Measurement

July 27 - 30, 2016

University of Lisbon, Portugal

www.esm2016.de



ESM 2016 Program / Presentations

Welcome to ESM!

Wednesday, July 27th 2016	
13:30 - 15:00	Registration for the workshops at Faculty of Human Kinetics, University of Lisbon
14:00 - 18:00	novel Workshops Workshop Topics: - Sensor physics - New pedoped® / forcepad sensor technology and demonstration on an emed® or Kistler. - Which sensor for what application is recommended and why: 10 typical applications. - New emed® platform and recorder software with 100Hz cameras. - What is new in novel scientific software.
19:00 - 21:00	Registration at Hotel Baía in Cascais
20:00 - 22:00	Welcome Reception Get together in Cascais at top floor sun-terrace Blue Bar of Hotel Baía in Cascais

Thursday, July 28th 2016	
7:45 - 8:20	Registration at Faculty of Human Kinetics, University of Lisbon
8:20 - 8:30	Welcome António Veloso, ESM 2016 host José Alves Diniz, President, Faculty of Human Kinetics Peter Seitz, novel
8:30 - 10:35	SESSION 1 Biomechanics I Chair: <i>Veloso, AP</i>
8:30 - 9:10	KEYNOTE LECTURE 1 Paradigms Shifts in the Biomechanics of Sport Shoes: From Cushioning and Motion Control towards the Habitual Joint Motion Path <i>Brüggemann, G-P, Institute of Biomechanics and Orthopaedics, German Sport University Cologne, Germany</i>
9:10 - 9:25	Impact of Arch Height Flexibility on Dynamic Plantar Pressure in Healthy Active Young Subjects with Planus Feet <i>Song, J, Choe, K, Neary, M, Zifchock, RA, Cameron, KL, Trepal, M, Hannan, MT, Hillstrom, H</i>

9:25 - 9:50	art in science® Award Finalist A 12mm, In-Shoe Orthotic Heel Lift Added to Standard Running Shoes Lowers Achilles Tendon Loading <i>Bartold, S, Wulf, M, Brauner, T, Hooper, SL, Reed, L, Wearing, SC</i>
9:50 - 10:05	Relationship of Plantar Loading and Rearfoot Motion Changes by Inserts for Pes Planovalgus <i>Vinescu, CI, Simonsen, FC, Kersting, UG</i>
10:05 - 10:20	Influence of Step Frequency on Running Kinetics <i>Schwachmeyer, V, Neitmann, T, Boeth, H, Duda, GN</i>
10:20 - 10:35	The Complexity of Designing a Mobile Running Coach <i>Wolf, R, Gloël, M, Blistein, R, Seitz, B</i>
10:35 - 11:05	Coffee Break
11:05 - 13:10	SESSION 2 Diabetes Chair: <i>Abboud, RJ</i>
11:05 - 11:45	KEYNOTE LECTURE 2 Biomechanical and Clinical Evidence on Custom-Made Footwear for Patients with Diabetes <i>Bus, SA, Human Performance Laboratory, Dept. of Rehabilitation, Academic Medical Centre, University of Amsterdam, The Netherlands</i>
11:45 - 12:10	art in science® Award Finalist Foot Loading and Gait Performance in Patients with Charcot-Marie-Tooth Disease <i>Hüttemann, D, Boentert, M, Young, P, Rosenbaum, D</i>
12:10 - 12:25	Foot Ulcer Risk Classification in Diabetes: Relevance of Pressure Patterns <i>Telles, R, Sacco, ICN, Sartor, CD, Mancuso, M, Uccioli, L, Giacomozzi, C</i>
12:25 - 12:50	art in science® Award Finalist Effect of Orthopedic Footwear Concepts on Plantar Pressure Relief in Patients with Diabetes Mellitus <i>Zwaferink, JBJ, Berendsen, HA, Custers, W, Paardekooper, I, Bus, SA</i>
12:50 - 13:10	Special Technical Session Standards of PDM - The New Technical Standard CEI 62-236 to Assess the Performance of the Medical Plantar Pressure Measurement Devices - The New Technical Standard CEI 62-236: Its Possible Implications in Research and in Clinical Practice <i>Giacomozzi, C</i>

13:10 - 14:10	Lunch
14:10 - 16:15	SESSION 3 Biomechanics II Chair: <i>Steele, J</i>
14:10 - 14:50	KEYNOTE LECTURE 3 Inducing Plasticity with Associative Brain-Computer Interfacing and Neurofeedback <i>Mrachacz-Kersting, N, Faculty of Medicine, Dept. Health Science and Technology, Center for Sensory-Motor Interaction, Neural Engineering and Neurophysiology, Aalborg University, Denmark</i>
14:50 - 15:05	Plantar Pressure Analysis of Foot- and Shoe-Based Custom Insoles for Safety Shoes <i>Giangrande, A, Leardini, A, Berti, L, Lullini, G, Padula, G, Caravaggi, P</i>
15:05 - 15:20	Comparing pedoped to Force Plate Measurements during Shod and Unshod Gait <i>Dahrouj, A, Jensen, E</i>
15:20 - 15:35	Test-Retest Reliability of an Instrumented Probe: Multidimensional Load Distribution of the Vaginal Cavity <i>Amorim, AC, Cacciari, LP, Pássaro, AC, Sacco, ICN</i>
15:35 - 16:00	art in science® Award Finalist Multidimensional Loads Distribution along the Vaginal Cavity in Pompoir Practitioners <i>Cacciari, LP, Pássaro, AC, Amorim, AC, Sacco, ICN</i>
16:00 - 16:15	Asymmetric Transfer Force in Sit-to-Stand of Healthy Older People at Different Toilet Heights <i>Bridge, C, Tong, SY, Sweatman, P</i>
16:15 - 17:25	SESSION 4 Poster Teaser Poster & Coffee Break Chair: <i>Mrachacz-Kersting, N</i>
	Comparison of Plantar Pressure Distribution in Dominant and Non-Dominant Leg of Female Karate National Team (Kata & Kumite) <i>Dizaji, E, Mimar, R, Sadeghi, H, Alizadeh, F, Tasoujian, E</i>
	Influence of Maximum or Submaximum Effort on the Load Distribution of the Hand <i>Mühdorfer-Fodor, M, Cenik, E, Hahn, P, Mittlmeier, T, van Schoonhoven, J, Prommersberger, KJ</i>
	Impact of Physical Activities (Walking) on the Plantar Pressure of Diabetic and Non-Diabetic Subjects <i>Altayyar, SS, Al-hmoudy, AA, Abhary, OI, Ali, MO</i>

	The Effect of Special Shoe Designed for Off Loading on Plantar Foot Pressure Distribution <i>Palmanovich, E, Sira, DB, Nyska, M, Ayalon, M</i>
	Reducing the Metatarsal Pain to Promote Daily Physical Activity in Obese People: A Sustainable Proposal <i>Giacomozzi, C, Mancuso, E, Mancuso, M</i>
	Effects of Foot Exercises in Long Distance Runners: A Pilot Controlled Trial <i>Taddei, UT, Matias, AB, Kuniyoshi, H, Sacco, ICN</i>
	Usability Evaluation of Contoured Pillow Through Interface Pressure Analysis of Occipital and Cervical Vertebral Area <i>Kim, JH, Sim, WS, Won, BH</i>
	Comparison of Body Height, Body Mass and Foot Morphology between Rural and Urban Indian Children <i>Mullerpatan, RP, Singh, YL</i>
	Productive Impulse Differences in Advanced vs. Training Level Dressage Horses <i>Crowell, A, Carter, A, Gavin, A</i>
	Anthropometric and Postural Control Interactions during Shooting <i>Scatagliani, S, Truyen, E, Andreoni, G, Gallant, J, Van Tiggelen, D</i>
	Long-Term Follow-Up on Conservative Treatment of Achilles Tendon Rupture – A Pedobarographic Study <i>Bencke, J, Kastoft, R, Søndergaard, RM, Speedtsberg, M, Penny, JØ</i>

Friday, July 29th 2016	
8:30	Networking Day Bus departure for the hiking group from Hotel Baía Cascais (via Oitavos Hotel) Sports activities and networking in the Sintra-Cascais National Park Area
16:00	Lederhosentraining® by Klaus Reithmeier
18:00	Evening Event: Barbecue on the beach at Bar do Guincho in Cascais
22:30	Bus departure from Guincho Beach to Hotel Baía Cascais (via Oitavos Hotel)