

8:00-8:30		Registration		
8:30-9:30		Plenary 2	Robotics for environmental monitoring: Opportunities and challenges Lino Marques - ISR - Universidade Coimbra Chair: Matilde Santos Peñas	Room B.032
9:30 - 10:00		Coffee Break		
10:00-11:00		Plenary 3	Safe decisions – theory and applications Rafal Wisniewski - Aalborg University, Denmark Chair: A. Pedro Aguiar	Room B.032
11:00-12:00		ThA1 SS1	Geometric and Analytic Methods for Nonlinear Data Organizers: Knut Hüper, Fátima Silva Leite Chair: Fátima Silva Leite	Room B.014
11:00	6	Velimir Jurdjevic <i>Hamiltonian View Of Finite Dimensional Quantum Mechanics</i>		
11:20	73	Krzysztof Krakowski <i>On a Certain Representation of Stiefel Manifolds</i>		
11:40	19	Niklas Rauchenberger and Knut Hüper <i>Endpoint Geodesic Formulas for the Special Euclidean Group</i>		
11:00-12:20		ThA2 Reg2	Control Applications 2 Chair: Francisco R. Rubio	Room B.017
11:00	43	Theodor-Gabriel Nicu, Florin Stoican, Daniel-Mihail Ioan and Ionela Prodan <i>Design of a Navigation Function for a Polyhedral World</i>		
11:20	62	Diogo Remoaldo, Isabel S. Jesus and Ramiro S. Barbosa <i>Improved Fuzzy Incremental Conductance MPPT Algorithm for a Photovoltaic System</i>		
11:40	80	Andreas Bück and Stefan Palis <i>Modelling and Efficiency Enhancement of Tablet Coating in a Rotary Drum</i>		
12:00	66	Francisco R. Rubio, Sergio Vazquez, Fernando Castaño, Juan Manuel Carrasco and Manuel G. Ortega <i>Gain Scheduling PI Voltage Control of Three-phase AC/DC Power Converters</i>		
12:20-14:00		Lunch		
14:00-15:00		ThB1 SS1	Geometric and Analytic Methods for Nonlinear Data Organizer: Knut Hüper, Fátima Silva Leite Chair: Knut Hüper	Room B.014
14:00	18	Daisuke Tarama <i>Geodesic flow for the statistical transformation model of multivariate normal distributions</i>		
14:20	25	Markus Schlarb <i>A family of Metrics and Quasi-Geodesics on the Manifold of Essential Matrices</i>		
14:40	71	Luís Machado, Margarida Camarinha and Fátima Silva Leite <i>Swelling effect along Riemannian polynomials on SPD manifolds</i>		
14:00-15:20		ThB2 Reg3	Data-based methods Chair: Luís Brito Palma	Room B.017
14:00	9	Rodrigo Salles, Joana Leiria and Jerome Mendes <i>Data entry errors detection for industrial quality control variables using data-driven models</i>		
14:20	36	Jakob Winkler, Christian Uhl, Stefan Geißelsöder, Tim Erdbrügger and Carsten Wolters <i>Comparison of classical EEG source analysis with deep learning</i>		
14:40	39	G. Reza Nazmara, Pedro Neto and A. Pedro Aguiar <i>Robust Learning-based Impedance Control of Robotic Manipulators in Unknown Environments</i>		
15:00	86	Luís Brito Palma <i>Adaptive Data-Based PID-PCA Controller for SISO Systems</i>		

15:20-16:20	ThC1 SS1	Geometric and Analytic Methods for Nonlinear Data Organizers: Knut Hüper, Fátima Silva Leite Chair: Luís Machado
15:20	40	Martina Flammer <i>An application of spatiotemporal persistence landscapes and dimension reduction techniques to EEG data</i>
15:40	35	Annika Stiehl, Nicolas Weeger and Christian Uhl <i>Comparison of mode selection and reconstructions obtained by DyCA and DMD with respect to noise robustness and sampling</i>
16:00	14	Alexandre Anahory Simoes, Leonardo Colombo and Fatima Silva Leite <i>Comparison of two numerical methods for Riemannian cubic polynomials on Stiefel manifolds</i>
16:40-17:00		Coffee Break
17:00-18:00		APCA Assembly
20:00-22:00		Congress Banquet