

Programme of PhysCon 2015 Sessions and Presentations

Session	Order	ID	Title	Registrant
Special Session : Control and Estimation for Dynamical Systems I, Chairs: Prof. Tatiana Filippova and Prof. Alexander Seseikin				
T1A	1	[44]	State Estimation for Uncertain Systems with Arbitrary Quadratic Nonlinearity	Prof. Tatiana F. Filippova
	2	[72]	Impulse Position Control Algorithms in Systems with Delay	Prof. Alexander Seseikin
	3	[81]	Observations' Control for Statistically Uncertain Systems	Prof. Boris Ananiev
	4	[83]	Time Optimal Self-triggered Feedback Control	Mr. Jorge Silva
Analysis and Control of Physical Systems I, Chair: Prof. Acar Savaci				
T1B	1	[104]	Bumpless Transfer for A Discrete-Time Switched System with Robust Control	Dr. Danica Rosinova
	2	[62]	On Qualitative Analysis of Mechanical Systems	Prof. Valentin Irtegov
	3	[86]	Predictive Control of Nonlinear Processes Using Fuzzy Hammerstein Model	Prof. Stefan Kozak
	4	[41]	LMI-based Robust Control Design for Motion Systems	Dr. Alena Kozakova
Special Session : Control of Synchronization Patterns in Complex Networks, Chair: Prof. Alexander Fradkov and Prof. Eckehard Scholl				
T2A	1	[107]	Thermalization in Feedback Controlled Fermi-Pasta-Ulam Lattice	Prof. Alexander Fradkov
	2	[92]	Adaptive Control of Cluster Synchronization in Delay-coupled Networks	Ms. Judith Lehnert
	3	[91]	Synchronization in Coupled Organ Pipes	Mr. Jakub Sawicki
	4	[79]	Controlled Synchronization in Two Dynamical Systems with Sector Bounded Nonlinearities	Mr. Sergei Plotnikov
	5	[78]	Control of Synchronization in Delay-Coupled Neural Heterogeneous Networks	Mr. Sergei Plotnikov
Analysis and Control of Physical Systems II, Chair: Prof. Serdar Ozoguz				
T2B	1	[108]	Active Fault Tolerant Gyromoment Control of the information Satellites	Prof. Yevgeny Somov
	2	[109]	Fault Tolerant Digital Attitude Control and Animation of a Satellite Motion	Prof. Yevgeny Somov
	3	[103]	Decentralized Model Predictive Control Based on I/O Plant Model	Dr. Alena Kozakova
	4	[87]	Investigation of Dynamic Stability of Elastic Aileron of Wing in Subsonic Flow	Dr. Andrey V. Ankilov
	5	[97]	Application of Singular Space-Time Transformation to Impulsive Pest Management	Dr. Maxim Staritsyn
Special Session : Time Series Analysis of Complex Systems, Chair: Prof. Ugur Tirnakli				
T3A	1	[38]	Probabilistically Constraining Proxy Age-depth Models within A Bayesian Hierarchical Reconstruction Method	Dr. Johannes Werner
	2	[27]	An Approach to Analyze Irregularly Sampled Time Series without interpolation	Mr. Deniz Eroglu
	3	[42]	Entropy of Weighted Recurrence Plots	Mr. Thomas Peron
	4	[54]	Forecasting Transitions in Systems with High Dimensional Stochastic Complex Dynamics	Prof. Henrik Jeldtoft Jensen
	5	[85]	The Super Model forecasting Method Applied to the Imperfect Model Scenario	Dr. Carsten Grabow
	6	[39]	Transient Coupling Relationships of the Holocene Australian Monsoon	Dr. Thomas Stemler
Dynamical Systems for Applications, Chair: Prof. Guanrong Chen				
T3B	1	[61]	Characteristic Control Oriented Waveform Design and Reconstruction in A Radar System	Dr. Wen Hu
	2	[36]	Experimental Evaluation of Synchronization-based Data Transmission Scheme for The Multipendulum Setup	Prof. Boris andrievsky
	3	[84]	On-Line Filtering of Sunlight Caustic Waves in Underwater Scenes in Motion	Eng. Emanuel Trabes
	4	[105]	A New Random Number Generator with A New Cellular Automata Model	Mr. Emre Goncu
	5	[75]	Medicine Delivery Strategy over The Airlines Network Against Virus Spreading	Ms. Rui Wang
	6	[69]	Control of UAV formation over A Finite Data Rate Packet Erasure Channel with Adaptive Coder	Prof. Boris andrievsky
Special Session : Control and Estimation for Dynamical Systems II, Chairs: Prof. Tatiana Filippova and Prof. Alexander Seseikin				
F1A	1	[88]	Parameter Uncertainty in State Constrained Optimal Control Problems	Prof. Fernando Pereira
	2	[95]	Optimal Control of Hybrid Systems with Polynomial Impulses	Dr. Maxim Staritsyn
	3	[98]	Monotonicity of Lyapunov Type Functions for Measure-driven Differential Systems	Dr. Olga Samsoneyuk
	4	[43]	Minimax Approach Problem with incomplete information for Two-level Hierarchical Nonlinear Discrete-time Dynamical System	Prof. Andrey Shorikov
Chaotic and Complex Dynamics, Chair: Dr. Selcuk Kilinc				
F1B	1	[32]	Displacement in Space of The Equilibria of Unstable Dissipative Systems	Mr. Luis Javier Ontanon
	2	[25]	A Unique Signum Switch for Chaos and Hyperchaos	Dr. Chunbiao Li
	3	[50]	Speed Gradient Driving of Neuron Spiking	Dr. Sergey Borisenok
	4	[67]	State Feedback Control of Chaotic Systems and Electronic Implementations	Prof. Gunyaz Ablay
Special Session : Synchronization in Complex Networks of Coupled Oscillators: Analysis and Control, Chair: Dr. Mattia Frasca				
F2A	1	[64]	Experimental investigation of Adaptive Synchronization of Two Rossler Circuits	Dr. Mattia Frasca
	2	[60]	Robustness of Chimera States with Respect to Noise	Prof. Eckehard Schoell
	3	[35]	Complex Dynamics in Quantum Dot Light Emitting Diodes	Prof. Kais A. Al Naimee
	4	[37]	Chimera-like Dynamics and Metastability in The C.Elegans Brain Network	Dr. Johanne Hizanidis
	5	[99]	Uni-directional Synchronization and Frequency Difference Locking induced by A Heteroclinic Ratchet	Dr. Ozkan Karabacak
Complex Networks, Chair:				
F2B	1	[48]	Differential Coalitional Game in Conditions of Uncertainty for Networks	Dr. Andrey Tarakanov
	2	[77]	Distribution of Different Network Parameters in Synchronization Optimized Networks	Dr. Suman Acharyya
	3	[18]	Chaos Synchronization in Nonlinear Networks with Time Delayed Couplings	Prof. Wolfgang Kinzel
	4	[66]	Bursting Dynamics in A Population of Oscillatory and Excitable Josephson Junctions	Dr. Chittaranjan Hens
	5	[29]	Synchronization Effects Related to Neighborhood Similarity in A Random Network of Non-identical Oscillators	Mr. Elbert E. N. Macau
Special Session : Chaotic and Complex Dynamics and its Applications I, Chair: Dr. Elbert E. N. Macau				
F3A	1	[17]	A New Model for Complex Dynamics in A DC Glow Discharge Tube	Dr. Riccardo Meucci
	2	[24]	Phase Control of Entangled States	Dr. Riccardo Meucci
	3	[53]	Chimeralike States in A Network of Oscillators under Attractive and Repulsive Global Coupling	Dr. Prodyot Kumar Roy
	4	[58]	Community Detection in Complex Networks via Dynamics	Mr. Elbert E. N. Macau
	5	[70]	Characterizing The Complexity of Time Series Network Graphs: A Simplicial Approach	Dr. Neelima Gupte
Synchronization, Chair: Dr. Ozkan Karabacak				
F3B	1	[82]	Estimates of Frequency of Periodic Regimes for Phase Synchronization Systems with Distributed Parameters	Ms. Natalia Utina
	2	[40]	Chaos Control and Synchronization in Quantum Dot Light Emitting Diodes	Prof. Kais A. Al Naimee
	3	[52]	Anticipating Synchronization Between Sampled-data Master and Discrete-time Slave Chaotic Systems	Mr. Ramazan Yeniceri
	4	[96]	Stochastic Resonance in Chua's Circuit Driven by Alpha-stable Noise	Ms. Serpil Yilmaz
	5	[73]	Onset Condition and Transient Behaviors of Noise-induced Bifurcation	Mr. Zhigang Li
Special Session : Chaotic and Complex Dynamics and its Applications II, Chair: Dr. Elbert E. N. Macau				
F4A	1	[94]	Organization in The initial Condition Space and Identification of Solutions in The Mackey-Glass Delayed Model	Dr. Arturo Marti
	2	[47]	Superstability Conditions Based Robust Stabilization of A Class of Uncertain Hyperchaotic Systems	Dr. Andrey Tarakanov
	3	[33]	Taming Complex Networks	Prof. Sudeshna Sinha
	4	[65]	Searching Heteroclinic Orbits in Time-delayed Fully-Connected Oscillators Networks	Dr. Diego Paolo Ferruzzo Correa
	5	[71]	Dynamics of Lowdimensional Ensembles of Phase Systems with Unidirectional Coupling	Mr. Kirill Aleshin
Beam and Plasma Dynamics, Quantum Entanglement, Chair:				
F4B	1	[10]	Modeling of Plasma Breakdown Conditions in Ister	Dr. Alexander Ovsyannikov
	2	[14]	Optimization of Beam Dynamics in The Axially Symmetric Potential Field	Dr. Alexander Ovsyannikov
	3	[49]	Tracking with Target Attractor Feedback in Superconducting Josephson Junction	Dr. Sergey Borisenok
	4	[4]	On The Effect of Correcting The Electro-hydraulic Servo Drive On The Dynamics of The "Servo Rive-Mass" System	Mr. Vladimir Metrikin
	5	[19]	Successive Passage of Atom in A Cavity in Interacting Fock Space	Prof. P. K. Das