

Technical Program, Thursday, June 28, 2018

Opening session		Plenary
<i>Session chair: Gábor Stépán</i>		
9:00-9:30		
József Bokor	Vice-President of MTA Hungarian Academy of Sciences Inst. Computer Science & Control	
Silviu-Iulian Niculescu	IFAC TC2.2 Chair L2S, CNRS-CentraleSupélec-Univ	
Giuseppe Conte	IFAC TC2.2 Former Chair Polytechnic University of Marche	
Péter Gáspár	IFAC NMO of Hungary Chair Hungarian Academy of Sciences Inst. Computer Science & Control	
RS01		Plenary
Nonsmooth Systems (Regular Session)		
<i>Session Chair: George Yin</i>		
09:40-10:00		RS01.1
<i>Switching diffusion with past dependent switching and countable state space</i>		
Nguyen, Dang H.	Wayne State Univ., Detroit	
Yin, George	Wayne State Univ., Detroit	
10:00-10:20		RS01.2
<i>Finite-time control for switched linear systems with interval time-delay</i>		
Göksu, Gökhan	Istanbul Technical Univ.	
Ilgaz, Ulviye Başer	Istanbul Technical Univ.	
10:20-10:40		RS01.3
<i>Design of PID controllers under saturation and time delay</i>		
Zhang, Jingfan	The Univ. of Manchester	
Mercader, Pedro	Israel Inst. of Technology	
Carrasco, Joaquin	The Univ. of Manchester	
10:40-11:00		RS01.4
<i>Global stabilization of a class of time-delay nonlinear systems with unknown control directions by nonsmooth feedback</i>		
Rattanamongkhonkun, Kanya	Chiang Mai Univ.	
Pongvuthithum, Radom	Chiang Mai Univ.	
Lin, Wei	Case Western Reserve Univ.	
RS02		Room I
Machining Dynamics (Regular Session)		
<i>Session Chair: Tamás Kalmár-Nagy</i>		
09:40-10:00		RS02.1
<i>An analytical study of wheel regeneration in surface grinding</i>		
Tóth, Máté	The Univ. of Sheffield	
Sims, Neil D.	The Univ. of Sheffield	
Curtis, David	The Univ. of Sheffield	

10:00-10:20		RS02.2
<i>Chatter classification in turning using machine learning and topological data analysis</i>		
Khasawneh, Firas A.	Michigan State Univ.	
Munch, Elizabeth	Michigan State Univ.	
Perea, Jose A.	Michigan State Univ.	
10:20-10:40		RS02.3
<i>A nonlinear delay-differential equation with harmonic excitation</i>		
Lelkes, János	Budapest Univ. of Technology	
Kalmár-Nagy, Tamás	Budapest Univ. of Technology	
10:40-11:00		RS02.4
<i>On basic modeling of the dynamics of axles rolling process</i>		
Farago, Denes	Budapest Univ. of Technology	
Merino, Ruben	IK4-Ideko	
Dombovari, Zoltan	Budapest Univ. of Technology	
RS03		Room II
Networks and Multi-Agent Systems I. (Regular Session)		
<i>Session Chair: Pankaj Wahi</i>		
09:40-10:00		RS03.1
<i>Input delay effect on cluster consensus in continuous-time networks</i>		
Develer, Ümit	Bogazici Univ.	
Akar, Mehmet	Bogazici Univ.	
10:00-10:20		RS03.2
<i>Necessary and sufficient conditions for consensus tracking of multi-agent time-delay systems</i>		
De, Souradip	IIT Kanpur	
Sahoo, Soumya Ranjan	IIT Kanpur	
Wahi, Pankaj	IIT Kanpur	
10:20-10:40		RS03.3
<i>Single-delay Proportional-Retarded (PR) protocols for fast consensus in a multi-agent system</i>		
Koh, Min Hyong	Northeastern Univ., Boston	
Ramírez, Adrián	Northeastern Univ., Boston	
Sipahi, Rifat	Northeastern Univ., Boston	
10:40-11:00		RS03.4
<i>Multiple intentional delays can facilitate fast consensus and noise reduction in a multi-agent system</i>		
Ramírez, Adrián	Northeastern Univ., Boston	
Sipahi, Rifat	Northeastern Univ., Boston	

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TS01	Plenary
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Time Delays in Biological Systems I. (Thematic Session)

Session Chair: Sue Ann Campbell

11:30-11:50	TS01.1
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Plankton models – interaction of time-delay and spatial effects

Campbell, Sue Ann	Univ. of Waterloo
Kloosterman, Matt	Univ. of Waterloo
Poulin, Francis	Univ. of Waterloo

11:50-12:10	TS01.2
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State dependent delays in the biological sciences: Where do they come from?

Mackey, Michael C.	McGill Univ.
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12:10-12:30	TS01.3
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Dynamics of epidemics with time-delayed response to awareness

Blyuss, Konstantin	Univ. of Sussex
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12:30-12:50	TS01.4
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An impulsive Goodwin-like model: The case of multiple delays

Churilov, Alexander N.	Saint Petersburg State Univ., ITMO Univ.
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TS02	Room 1
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Regenerative Vibration in Machining (Thematic Session)

Session Chair: Zoltan Dombovari

11:30-11:50	TS02.1
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Milling with non-uniform pitch and variable helix tools

Otto, Andreas	TU Chemnitz
Rauh, Stefan	Fraunhofer IWU
Ihlenfeldt, Steffen	Fraunhofer IWU, TU Dresden
Radons, Günter	TU Chemnitz

11:50-12:10	TS02.2
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Slowly varying parameters in time periodic delayed system

Dombovari, Zoltan	Budapest Univ. of Technology, IK4-IDEKO
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Kuske, Rachel	Georgia Inst. of Technology
Stepan, Gabor	Budapest Univ. of Technology

12:10-12:30	TS02.3
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Optimal delay distribution selection for chatter avoidance in milling operations

Munoa, Jokin	IK4-IDEKO
Dombovari, Zoltan	Budapest Univ. of Technology

12:30-12:50	TS02.4
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Stability of simultaneous turning processes

Azvar, Milad	Sabanci Univ.
Budak, Erhan	Sabanci Univ.

TS03	Room II
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Dynamic Economic Models with Delays
(Thematic Session)

Session Chair: Ferenc Szidarovszky

11:30-11:50	TS03.1
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Learning models in oligopoly with delays

Szidarovszky, Ferenc	Univ. of Pecs
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11:50-12:10	TS03.2
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Control of random walkers with time delayed feedback

Kobayashi, Miki U.	Rissho Univ.
Ando, Hiroyasu	Univ. of Tsukuba

12:10-12:30	TS03.3
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Delay Cournot duopoly models revisited

Guerrine, Luca	Polytechnic Univ. of Marche
Matsumoto, Akio	Chuo Univ.
Szidarovszky, Ferenc	Univ. of Pecs

12:30-12:50	TS03.4
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On the convergence and the steady state in a delayed Solow model

Varszegi, Balazs	Budapest Univ. of Technology, MTA-BME Lendület HBRG
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TS04		Plenary
Time Delays in Biological Systems II. (Thematic Session)		
Session Chair: John Milton		
14:00-14:20	TS04.1	
Sensory dead zones and sampled time delayed feedback in human balance control		
Milton, John	The Claremont Colleges	
14:20-14:40	TS04.2	
Delays in gambler's ruin and random relays		
Ohira, Toru	Nagoya Univ.	
14:40-15:00	TS04.3	
Human balancing on rolling balance board in the frontal plane		
Molnar, Csenge Andrea	Budapest Univ. of Technology, MTA-BME Lendület HBRG	
Zelei, Ambrus	Budapest Univ. of Technology, MTA-BME Lendület HBRG	
Inspurger, Tamas	Budapest Univ. of Technology, MTA-BME Lendület HBRG	
15:00-15:20	TS04.4	
Aging transition in systems of oscillators with global distributed-delay coupling		
Kyrychko, Yuliya	Univ. of Sussex	

TS05		Room I
Time Delays in Input Shaping Applications		
(Thematic Session)		
Session Chair: Tomáš Vyhlídal		
14:00-14:20	TS05.1	
Time delay algorithms for control of a quadcopter with suspended load		
Bušek, Jaroslav	CTU in Prague	
Kuře, Matěj	CTU in Prague	
Vyhlídal, Tomáš	CTU in Prague	
Hromčík, Martin	CTU in Prague	
14:20-14:40	TS05.2	
Dynamics and command shaping control of quadcopters carrying suspended loads		
Ichikawa, Sarah	Tokyo Metropolitan Univ.	
Castro, Arnaldo	Georgia Inst. of Technology	
Johnson, Nicholas	Georgia Inst. of Technology	
Kojima, Hirohisa	Tokyo Metropolitan Univ.	
Singhose, William	Georgia Inst. of Technology	

14:40-15:00	TS05.3	
<i>Suppressing delay-induced vibrations via the tuned mass damper</i>		
<u>Habib, Giuseppe</u>	Budapest Univ. of Technology	
<u>Stepan, Gabor</u>	Budapest Univ. of Technology	
15:00-15:20	TS05.4	
<i>Concurrent design of linear control with input shaping for a two-link flexible manipulator arm</i>		
<u>Newman, Daniel</u>	Univ. of Louisiana at Lafayette	
<u>Vaughan, Joshua</u>	Univ. of Louisiana at Lafayette	
TS06		Room II
Controlling Delayed Complex Systems		
(Thematic Session)		
<i>Session Chair: Andreas Otto</i>		
14:00-14:20	TS06.1	
<i>Controlling delayed complex systems</i>		
<u>Otto, Andreas</u>	TU Chemnitz	
14:20-14:40	TS06.2	
<i>Delayed feedback control of self-mobile cavity solitons in a wide-aperture laser with a saturable absorber</i>		
<u>Gurevich, Svetlana V.</u>	Univ. of Münster	
<u>Schelte, Christian</u>	Univ. of Münster	
<u>Panajotov, Krassimir</u>	Vrije Univ. Brussel	
<u>Tlidi, Mustapha</u>	Univ. Libre de Bruxelles	
14:40-15:00	TS06.3	
<i>Stability of a spatially uniform steady state in two Turing systems coupled by a delay connection</i>		
<u>Konishi, Keiji</u>	Osaka Prefecture Univ.	
<u>Hara, Naoyuki</u>	Osaka Prefecture Univ.	
15:00-15:20	TS06.4	
<i>Adaptive control of cluster synchronization in delay-coupled oscillators</i>		
<u>Hövel, Philipp</u>	TU Berlin	

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RS04	Plenary
Biological Applications (Regular Session)	
<i>Session Chair: Li Zhang</i>	
15:50-16:10	RS04.1
<i>A delayed epidemic model of bovine viral diarrhe</i>	
<u>Bassett, Jason</u>	TU Berlin
Lentz, Hartmut H. K.	Friedrich Loeffler Inst.
Gethmann, Jörn	Friedrich Loeffler Inst.
Hövel, Philipp	TU Berlin, BCCN Berlin
16:10-16:30	RS04.2
<i>Distributed control in stabilization of a model of infection diseases</i>	
<u>Bershadsky, Marina</u>	Ariel Univ.
Domoshnitsky,	Ariel Univ.
Alexander	Ariel Univ.
Volinsky, Irina	
16:30-16:50	RS04.3
<i>Stability analysis of a human balancing model with different feedback delays</i>	
<u>Zhang, Li</u>	Nanjing Univ. of Aeronautics and Astronautics
Stepan, Gabor	Budapest Univ. of Technology
16:50-17:10	RS04.4
<i>Mathematical models for balancing tasks on a see-saw with reaction time delay</i>	
Buza, Gergely	Budapest Univ. of Technology, MTA-BME Lendület HBRG
<u>Inspurger, Tamas</u>	Budapest Univ. of Technology, MTA-BME Lendület HBRG

RS05	Room I
Stochastic Systems (Regular Session)	
<i>Session Chair: George Yin</i>	
15:50-16:10	RS05.1
<i>Stochastic averaging for functional diffusions</i>	
Wu, Fuke	Huazhong Univ. of Sci. and Tech.
<u>Yin, George</u>	Wayne State Univ., Detroit
16:10-16:30	RS05.2
<i>Stability of continuous-time systems with stochastic delay</i>	
Sadeghpour, Mehdi	Univ. of Michigan, Ann Arbor
	Rice Univ., Univ. of Houston
<u>Orosz, Gábor</u>	Univ. of Michigan, Ann Arbor

16:30-16:50	RS05.3
<i>Noise-induced dynamics in a delayed triple-well potential system driven by correlated noises</i>	
<u>Jin, Yanfei</u>	Beijing Inst. of Technology
Xu, Pengfei	Beijing Inst. of Technology, Changzhi Univ.
16:50-17:10	RS05.4
<i>Parametric study of virtual stick balancing based on a delayed PD model</i>	
<u>Kovacs, Balazs A.</u>	Budapest Univ. of Technology, MTA-BME Lendület HBRG
Inspurger, Tamas	Budapest Univ. of Technology, MTA-BME Lendület HBRG

RS06	Room II
Networks and Multi-Agent Systems II. (Regular Session)	
<i>Session Chair: Rifat Sipahi</i>	
15:50-16:10	RS06.1
<i>Approximation-based transient behavior analysis of multi-agent systems with delay</i>	
<u>Fehér, Áron</u>	Sapientia Hungarian Univ. of Transylvania, Univ. of Pannonia
Márton, Lőrinc	Sapientia Hungarian Univ. of Transylvania
16:10-16:30	RS06.2
<i>Exploring the rendezvous of agents in cyclic pursuit with possible negative controller gain and homogeneous input delay</i>	
De, Souradip	IIT Kanpur
Sahoo, Soumya Ranjan	IIT Kanpur
<u>Wahi, Pankaj</u>	IIT Kanpur
16:30-16:50	RS06.3

<i>Synchronization in networks with heterogeneous coupling delays</i>	
<u>Otto, Andreas</u>	TU Chemnitz
Bachrathy, Daniel	Budapest Univ. of Technology
Orosz, Gabor	Univ. of Michigan, Ann Arbor
Radons, Günter	TU Chemnitz
16:50-17:10	RS06.4
<i>Further remarks on single-delay and multiple-delay PR protocols for fast consensus in a large-scale network</i>	
<u>Ramírez, Adrián</u>	Northeastern Univ., Boston
Sipahi, Rifat	Northeastern Univ., Boston

IFAC TC meeting	Plenary
<i>Session Chair: Silviu-Iulian Niculescu</i>	
17:20-18:20	

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RS07	Plenary
Neutral Systems I. (Regular Session) <i>Session Chair: Hitay Özbay</i>	
09:00-09:20	RS07.1
<i>On feedback stabilization of neutral time delay systems with infinitely many unstable poles</i>	
Gumussoy, Suat	MathWorks
<u>Özbay, Hitay</u>	Bilkent Univ.
09:20-09:40	RS07.2
<i>On the stabilization of a system of neutral type occurring in co-generation</i>	
<u>Răsvan, Vladimir</u>	Univ. of Craiova
Danciu, Daniela	Univ. of Craiova
Popescu, Dan	Univ. of Craiova
09:40-10:00	RS07.3
<i>Neutral PID control loop investigated in terms of similarity theory</i>	
<u>Fišer, Jaromír</u>	CTU in Prague
Zítek, Pavel	CTU in Prague
Vyhliďal, Tomáš	CTU in Prague
10:00-10:20	RS07.4
<i>A new stability criterion for neutral-type systems with one delay</i>	
Gomez, Marco A.	Cinvestav, IPN
<u>Egorov, Alexey V.</u>	Saint Petersburg State Univ.
Mondić, Sabine	Cinvestav, IPN
10:20-10:40	RS07.5
<i>On control and anticipatory effects in applied mechanics</i>	
<u>Béda, Péter B.</u>	Budapest Univ. of Technology
10:40-11:00	RS07.6
<i>On Hamilton-Jacobi equations for neutral-type differential games</i>	
Gomoyunov, Mikhail	N.N. Krasovskii Inst. of Math. and Mech., Ural Federal Univ.
<u>Plaksin, Anton</u>	N.N. Krasovskii Inst. of Math. and Mech., Ural Federal Univ.

RS08	Room I
Nonlinear Systems (Regular Session) <i>Session Chair: Vasil G. Angelov</i>	
09:00-09:20	RS08.1
<i>Dynamics of coupled Duffing oscillators with delayed feedback</i>	
<u>Weremczuk, Andrzej</u>	Lublin Univ. of Technology
Warminski, Jerzy	Lublin Univ. of Technology
Rusinek, Rafal	Lublin Univ. of Technology
09:20-09:40	RS08.2
<i>Nonuniform lossless transmission lines terminated by a nonlinear conductive element</i>	
<u>Angelov, Vasil G.</u>	Univ. of Mining and Geology
09:40-10:00	RS08.3
<i>Structural stability in scalar delay equations with monotone feedback</i>	
López Nieto, Alejandro	Freie Univ. Berlin
10:00-10:20	RS08.4
<i>Finite-element based observer design for nonlinear systems with delayed measurements</i>	
<u>Rehák, Branislav</u>	Czech Academy of Sciences
10:20-10:40	RS08.5
<i>Viable trajectories for nonconvex differential inclusions with constant delay</i>	
Frankowska, Hélène	Sorbonne Univ.
<u>Haidar, Ihab</u>	ENSEA
10:40-11:00	RS08.6
<i>On bounded control of a class of feedforward nonlinear time-delay systems</i>	
Yang, Xuefei	Harbin Inst. of Technology
Zhou, Bin	Harbin Inst. of Technology
<u>Lou, Weiwei</u>	Harbin Inst. of Technology
Lam, James	Univ. of Hong Kong

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RS09	Room II
Stability (Regular Session)	
<i>Session Chair: Wim Michiels</i>	
09:00-09:20	RS09.1
<i>An algebraic approach for a stability analysis methodology for multiple time-delay systems</i>	
<u>Alikoc, Baran</u>	CTU in Prague
Ergenc, Ali Fuat	Istanbul Technical Univ.
09:20-09:40	RS09.2
<i>Some remarks on the asymptotic behavior for quasipolynomials with two delays</i>	
<u>Martínez-González, Alejandro</u>	UASLP, CNRS-Supélec
Méndez-Barrios, Cesar Fernando	UASLP
Niculescu, Silviu-Iulian	CNRS-Supélec
Chen, Jie	City Univ. of Hong Kong
09:40-10:00	RS09.3
<i>Stability analysis for systems with time-varying delay via orthogonal-polynomial-based integral inequality</i>	
<u>Park, JunMin</u>	Pohang Univ. of Sci. and Tech.
Park, PooGyeon	Pohang Univ. of Sci. and Tech.
10:00-10:20	RS09.4
<i>Polynomial (chaos) approximation of the spectral abscissa: Efficiency and limitations</i>	
<u>Fenzi, Luca</u>	KU Leuven
Michiels, Wim	KU Leuven
10:20-10:40	RS09.5
<i>Dynamics of a ring network with a linear tail</i>	
<u>Xu, Xu</u>	Jilin Univ.
Yu, Dongyuan	Jilin Univ.
10:40-11:00	RS09.6
<i>New model transformations for the stability analysis of time-delay systems</i>	
<u>Safi, Mohammed</u>	Univ. de Toulouse, CNRS
Baudouin, Lucie	Univ. de Toulouse, CNRS
Seuret, Alexandre	Univ. de Toulouse, CNRS

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TS07	Plenary
Dynamics of Networks with Delayed Connections I. (Thematic Session) <i>Session Chair: Serhiy Yanchuk</i>	
11:30-11:50	TS07.1
<i>How interaction delays control spiking patterns in pulse-coupled networks</i>	
<u>Yanchuk, Serhiy</u>	TU Berlin
11:50-12:10	TS07.2
<i>Symmetry, Hopf bifurcation and the emergence of cluster solutions in time delayed neural networks</i>	
<u>Campbell, Sue Ann</u>	Univ. of Waterloo
Wang, Zhen	Univ. of Waterloo
12:10-12:30	TS07.3
<i>Properties of master stability islands for amplitude death in networks of delay-coupled oscillators</i>	
<u>Huddy, Stanley R.</u>	Fairleigh Dickinson Univ.
12:30-12:50	TS07.4
<i>Dynamics and synchronization of time-varying networks with coupling delays</i>	
<u>D'Huys, Otti</u>	Aston Univ.
Rodríguez-Laguna, Javier	UNED
Jiménez-Martín, Manuel	UNED
Korutcheva, Elka	Bulgarian Academy of Sciences
Kinzel, Wolfgang	Würzburg Univ.
TS08	Room I
Mathematical Biology (Thematic Session) <i>Session Chair: John Milton</i>	
11:30-11:50	TS08.1
<i>Dynamics of some delay logistic equations</i>	
<u>Röst, Gergely</u>	Univ. of Oxford
11:50-12:10	TS08.2
<i>Delay equations for disease and immunity dynamics</i>	
<u>Barbarossa, Maria Vittoria</u>	Heidelberg Univ.

12:10-12:30	TS08.3
<i>Controlling Mackey-Glass chaos</i>	
<u>Kiss, Gábor</u>	Univ. of Szeged
12:30-12:50	TS08.4
<i>Differential equations with gamma-Ricker type delayed feedback</i>	
<u>Liz, Eduardo</u>	Univ. de Vigo
TS09	Room II
Stochastic Time-Delayed Systems (Thematic Session) <i>Session Chair: Yuliya Kyrychko</i>	
11:30-11:50	TS09.1
<i>Noise-induced switching in systems with distributed delays</i>	
<u>Kyrychko, Yuliya</u>	Univ. of Sussex
11:50-12:10	TS09.2
<i>Noise-induced chimeras in dynamical networks: Nonlocally coupled ring versus 2D modular fractal connectivity</i>	
<u>Zakharova, Anna</u>	TU Berlin
Heym, Nikolas	TU Berlin
Schöll, Eckehard	TU Berlin
12:10-12:30	TS09.3
<i>Noise induced large fluctuations in delay-coupled mixed reality systems</i>	
Schwartz, Ira B.	US Naval Research Laboratory
<u>Szwaykowska, Klimka</u>	US Naval Research Laboratory
Carr, Thomas W.	Southern Methodist Univ.
Hindes, Jason	US Naval Research Laboratory, National Research Council
12:30-12:50	TS09.4
<i>Stochastic effects in a time-delayed model for autoimmunity</i>	
<u>Fatehi, Farzad</u>	Univ. of Sussex
Kyrychko, Yuliya N.	Univ. of Sussex
Blyuss, Konstantin B.	Univ. of Sussex

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TS10	Plenary
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Dynamics of Networks with Delayed Connections II.
(Thematic Session)
Session Chair: Serhiy Yanchuk

14:00-14:20	TS10.1
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Relation between the dynamics of a single-delay system and a feed-forward ring

<u>Klinshov, Vladimir</u>	Inst. of Applied Physics
Shchapin, Dmitry	Inst. of Applied Physics
Nekorkin, Vladimir	Inst. of Applied Physics
Yanchuk, Serhiy	TU Berlin
Wolfrum, Matthias	WIAS Berlin
D'Huys, Otti	Aston Univ.

14:20-14:40	TS10.2
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Beyond Square Waves: Coherence-Incoherence patterns in a singularly perturbed Delay Differential Equation

<u>Ruschel, Stefan</u>	TU Berlin
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14:40-15:00	TS10.3
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Delayed feedback control of networks

<u>Schneider, Isabelle</u>	Freie Univ. Berlin
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15:00-15:20	TS10.4
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Phase solitons in DDEs with large delay

<u>Wolfrum, Matthias</u>	WIAS Berlin
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TS11	Room I
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Numerical Analysis for Delay Equations in Population Dynamics (Thematic Session)
Session Chair: Tony Humphries

14:00-14:20	TS11.1
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Pseudospectral methods for the stability of periodic solutions of delay equations

<u>Liessi, Davide</u>	Univ. of Udine
Breda, Dimitri	Univ. of Udine

14:20-14:40	TS11.2
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Pseudospectral methods for the bifurcation analysis of nonlinear delay equations

<u>Scarabel, Francesca</u>	Univ. of Helsinki
Gyllenberg, Mats	Univ. of Helsinki
Vermiglio, Rossana	Univ. of Udine

14:40-15:00	TS11.3
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Improving numerical continuation for complex delay models of structured populations

<u>Andò, Alessia</u>	Univ. of Udine
Breda, Dimitri	Univ. of Udine

15:00-15:20	TS11.4
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Worries with state-dependent delays

<u>Humphries, Tony</u>	McGill Univ.
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TS12	Room II
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Time-Delayed Models of Neural Systems
(Thematic Session)
Session Chair: Konstantin Blyuss

14:00-14:20	TS12.1
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Dynamics of interactions between discrete and distributed delays in neural networks

<u>Blyuss, Konstantin</u>	Univ. of Sussex
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14:20-14:40	TS12.2
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Chimera states in neural networks: interplay of fractal topology and delay

Sawicki, Jakub	TU Berlin
Omelchenko, Iryna	TU Berlin
Zakharova, Anna	TU Berlin
<u>Schöll, Eckehard</u>	TU Berlin

14:40-15:00	TS12.3
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Delayed but not much: the role of inhibition in neuronal synchronization

Matias, Fernanda S.	Univ. Federal de Alagoas, NeuroSpin Center
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Carelli, Pedro V.	Univ. Federal de Pernambuco
Copelli, Mauro	Univ. Federal de Pernambuco
<u>Mirasso, Claudio R.</u>	Campus Univ. de les Illes Balears

15:00-15:20	TS12.4
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Delayed feedback for pulsatile electrical brain stimulation

<u>Popovych, Oleksandr V.</u>	Research Centre Jülich
Lysyansky, Borys	Research Centre Jülich
Tass, Peter A.	Stanford Univ.

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RS10	Plenary
Neutral Systems II. (Regular Session) <i>Session Chair: Altug Iftar</i>	
15:50-16:10	RS10.1
<i>Stable and robust controller synthesis for unstable time delay systems via interpolation and approximation</i>	
Yücesoy, Veysel	ASELSAN Research Center, Bilkent Univ.
<u>Özbay, Hitay</u>	Bilkent Univ.
16:10-16:30	RS10.2
<i>Adaptive robust stabilization of uncertain neutral delay-time systems via control schemes with simple structure</i>	
Wu, Hansheng	Prefectural Univ. of Hiroshima
16:30-16:50	RS10.3
<i>Overlapping decentralized controller design for neutral systems with distributed time-delay</i>	
<u>Iftar, Altug</u>	Anadolu Univ.
16:50-17:10	RS10.4
<i>Observer-based delayed resonator with acceleration feedback</i>	
Kocak, Sena	Turkish Aerospace Industries
Ergenc, Ali Fuat	Istanbul Technical Univ.
RS11	Room I
Periodic Systems (Regular Session) <i>Session Chair: Kestutis Pyragas</i>	
15:50-16:10	RS11.1
<i>Act-and-wait modification of time-delayed feedback control algorithm</i>	
Pyragas, Kestutis	Center for Physical Sci. and Tech.
Pyragas, Viktoras	Center for Physical Sci. and Tech.
16:10-16:30	RS11.2
<i>Time-delay and sampled-data implementation of derivative-dependent control</i>	
Selivanov, Anton	Tel Aviv Univ.
Fridman, Emilia	Tel Aviv Univ.
16:30-16:50	RS11.3
<i>Periodic and quasi-periodic oscillations of fixed and rotating self-excited structures with time delay</i>	
<u>Warminski, Jerzy</u>	Lublin Univ. of Technology

16:50-17:10	RS11.4
<i>A numerical approach for the stability of large-scale time-periodic time-delay systems</i>	
<u>Jarlebring, Elias</u>	KTH Royal Inst. of Tech.
RS12	Room II
Applications (Regular Session) <i>Session Chair: Helmut Maurer</i>	
15:50-16:10	RS12.1
<i>Applications of optimal control problems with time delays</i>	
<u>Maurer, Helmut</u>	Univ. of Münster
16:10-16:30	RS12.2
<i>Delays in model reduction of chemical reaction networks</i>	
Lipták, György	Hungarian Academy of Sciences
<u>Hangos, Katalin M.</u>	Hungarian Academy of Sciences, Univ. of Pannonia
16:30-16:50	RS12.3
<i>Bound pulse trains in arrays of coupled spatially extended dynamical systems</i>	
<u>Puzirev, Dmitry</u>	TU Berlin
Vladimirov, Andrey G.	WIAS Berlin, Lobachevsky State Univ. of Nizhni Novgorod
Pimenov, Alexander	WIAS Berlin
Gurevich, Svetlana V.	Univ. of Münster
Yanchuk, Serhiy	TU Berlin
16:50-17:10	RS12.4
<i>Complex dynamics of a typical electrostatic MEMS resonator and its control by delayed position feedback</i>	
<u>Shang, Huilin</u>	Shanghai Inst. of Technology
Knorr-Bremse Session	Plenary
<i>Session Chair: Gabor Stepan</i>	
17:20-18:00	
<i>Automation of commercial vehicles</i>	
<u>Frank, Péter</u>	Knorr-Bremse R&D Center, Budapest
Farewell Dinner	
18:30-	

Technical Program, Saturday, June 30, 2018

RS13	Plenary
Robust Stabilization and Predictor Feedback (Regular Session) <i>Session Chair: László Keviczky</i>	
09:00-09:20	RS13.1
<i>Influence of time-delay mismatch for robustness and stability</i>	
Bányász, Csilla	Hungarian Academy of Sciences
<u>Keviczky, László</u>	Hungarian Academy of Sciences
Bars, Ruth	Budapest Univ. of Technology
09:20-09:40	RS13.2
<i>Robust PID controller design for plants with delay using similarity theory</i>	
<u>Fišer, Jaromír</u>	CTU in Prague
Zitek, Pavel	CTU in Prague
Vyhliďal, Tomáš	CTU in Prague
09:40-10:00	RS13.3
<i>Extension of an anti-windup scheme for systems with time delay and integral action</i>	
<u>Öztürk, Dilan</u>	Bilkent Univ.
Özbay, Hitay	Bilkent Univ.
10:00-10:20	RS13.5
<i>Necessary and sufficient conditions for the stability of uncertain input-delayed systems</i>	
<u>Bou Farraa, Berna</u>	LS2N, Univ. Bretagne Loire
Abbou, Rosa	LS2N, Univ. Bretagne Loire
Loiseau, Jean Jacques	LS2N, Univ. Bretagne Loire
10:20-10:40	RS13.6
<i>State predictive control by integral approximation for inverted pendulum with time delay</i>	
<u>Abe, Naoto</u>	Meiji Univ.
Fukunaga, Shinya	Meiji Univ.
10:40-11:00	RS13.3
<i>Lower bounds on delay margin of second-order unstable systems</i>	
Ma, Dan	Northeastern Univ., Shenyang
Chen, Jianqi	City Univ. of Hong Kong
Liu, Andong	City Univ. of Hong Kong
<u>Chen, Jie</u>	City Univ. of Hong Kong
Niculescu, Silviu-Iulian	CNRS-Supélec

RS14	Room I
Vehicle Applications (Regular Session) <i>Session Chair: Gábor Orosz</i>	
09:00-09:20	RS14.1
<i>Hierarchical steering control for a front wheel drive automated car</i>	
<u>Beregi, Sándor</u>	Budapest Univ. of Technology
Takács, Dénes	MTA-BME Research Group on Dyn. of Machines and Vehicles
He, Chaozhe R.	Univ. of Michigan, Ann Arbor
Avedisov, Sergei S.	Univ. of Michigan, Ann Arbor
Orosz, Gábor	Univ. of Michigan, Ann Arbor
09:20-09:40	RS14.2
<i>Modeling highway traffic flow using distributed time-delay</i>	
<u>İftar, Altug</u>	Anadolu Univ.
09:40-10:00	RS14.3
<i>Control of yaw dynamics in the presence of input time delay with rear axle steering system</i>	
<u>Stréli, Tamás</u>	Knorr Bremse Systems for Commercial Vehicles
Németh, Huba	Knorr Bremse Systems for Commercial Vehicles
10:00-10:20	RS14.4
<i>String and robust stability of connected vehicle systems with delayed feedback</i>	
<u>Kamath, Gopal Krishna</u>	IIT Madras
Jagannathan, Krishna	IIT Madras
Raina, Gaurav	IIT Madras
10:20-10:40	RS14.5
<i>Lateral vehicle control using finite spectrum assignment</i>	
<u>Voros, Illes</u>	Budapest Univ. of Technology
Varszegi, Balazs	Budapest Univ. of Technology, MTA-BME Lendület HBRG
10:40-11:00	RS14.6
<i>Energy distribution of a vehicle shimmy system with the delayed tyre model</i>	
<u>Mi, Tian</u>	Southeast Univ., Nanjing
Chen, Nan	Southeast Univ., Nanjing
Stepan, Gabor	Budapest Univ. of Technology
Takacs, Denes	MTA-BME Research Group on Dyn. of Machines and Vehicles

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RS15	Room II
Theory of DDEs (Regular Session)	
<i>Session Chair: Vladimir L. Kharitonov</i>	
09:00-09:20	RS15.1
<i>Approximate Lyapunov matrices for time-delay systems</i>	
<u>Kharitonov, Vladimir L.</u>	Saint Petersburg State Univ.
09:20-09:40	RS15.2
<i>The Sturm separation theorem for impulsive delay differential equations</i>	
<u>Domoshnitsky, Alexander</u>	Ariel Univ.
<u>Raichik, Vladimir</u>	Ariel Univ.
09:40-10:00	RS15.3
<i>On the quasilinearization method for a parameter estimation problem in a class of functional differential equations with state-dependent delays</i>	
<u>Hartung, Ferenc</u>	Univ. of Pannonia
10:00-10:20	RS15.4
<i>Symbolic computation for integro-differential-time-delay operators with matrix coefficients</i>	
<u>Cluzeau, Thomas</u>	Univ. of Limoges
<u>Poor, Jamal Hossein</u>	Austrian Academy of Sciences
<u>Quadrat, Alban</u>	INRIA Lille - Nord Europe
<u>Raab, Clemens G.</u>	Johannes Kepler Univ. Linz
<u>Regensburger, Georg</u>	Johannes Kepler Univ. Linz
10:20-10:40	RS15.5
<i>Sign-constancy of Green's functions for two-point boundary value problems with second order impulsive delayed differential equations</i>	
<u>Domoshnitsky, Alexander</u>	Ariel Univ.
<u>Mizgireva, Yulia</u>	Ariel Univ.
10:40-11:00	RS15.6
<i>Extending the limits of stabilizability of systems with feedback delay via fractional-order PD controllers</i>	
<u>Tamas Balogh</u>	Budapest Univ. of Technology
<u>Tamas Inesperger</u>	Budapest Univ. of Technology, MTA-BME Lendület HBRG

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TS13	Plenary
Time Delays in Connected and Automated Vehicles (Thematic Session) <i>Session Chair: Gabor Orosz</i>	
11:30-11:50	TS13.1
<i>Seeing beyond the line of sight – controlling connected automated vehicles</i>	
<u>Orosz, Gabor</u>	Univ. of Michigan, Ann Arbor
11:50-12:10	TS13.2
<i>Robust control design for connected automated vehicles</i>	
<u>Hajdu, Dávid</u>	Budapest Univ. of Technology
<u>Ge, Jin I.</u>	California Inst. of Technology
<u>Insperger, Tamás</u>	Budapest Univ. of Technology, MTA-BME Lendület HBRG
<u>Orosz, Gábor</u>	Univ. of Michigan, Ann Arbor
12:10-12:30	TS13.3
<i>Collaborative control strategy for connected autonomous vehicles in the presence of communication delays and cyber-attacks</i>	
<u>Petrillo, Alberto</u>	Univ. of Naples Federico II
<u>Santini, Stefania</u>	Univ. of Naples Federico II, Italian National Research Council
12:30-12:50	TS13.4
<i>Connected testbeds for connected automated vehicles</i>	
<u>Ersal, Tulga</u>	Univ. of Michigan, Ann Arbor
TS14	Room I
Spectral Methods for Rightmost Roots Characterization in LTI Time Delay Systems I. (Thematic Session) <i>Session Chair: Rifat Sipahi</i>	
11:30-11:50	TS14.1
<i>Perspectives on the computation of rightmost roots: Recent results and future directions</i>	
<u>Sipahi, Rifat</u>	Northeastern Univ., Boston
11:50-12:10	TS14.2
<i>Robust stabilisation of linear time-delay systems with uncertainties in the system matrices and in the delay terms</i>	
<u>Borgioli, Francesco</u>	KU Leuven
<u>Michiels, Wim</u>	KU Leuven

12:10-12:30	TS14.3
<i>A tuning procedure for the Cascade Proportional Integral Retarded Controller</i>	
<u>López, Kevin</u>	Cinvestav-IPN
<u>Mondié, Sabine</u>	Cinvestav-IPN
<u>Garrido, Rubén</u>	Cinvestav-IPN
12:30-12:50	TS14.4
<i>Proper orthogonal decomposition and dynamic mode decomposition of delay-differential equations</i>	
<u>Heizer, Balazs</u>	Budapest Univ. of Technology
<u>Kalmar-Nagy, Tamas</u>	Budapest Univ. of Technology
TS15	Room II
Positivity Based Approach in Stability of Delay Differential Systems (Thematic Session) <i>Session Chair: Alexander Domoshnitsky</i>	
11:30-11:50	TS15.1
<i>Positivity-based approach to stability of delay systems: new trends</i>	
<u>Domoshnitsky, Alexander</u>	Ariel Univ.
11:50-12:10	TS15.2
<i>Semistability of complex balanced kinetic systems with time delays</i>	
<u>Lipták, György</u>	Hungarian Academy of Sciences, Univ. of Pannonia
<u>Hangos, Katalin M.</u>	Hungarian Academy of Sciences, Univ. of Pannonia
<u>Pituk, Mihály</u>	Univ. of Pannonia
<u>Szederkényi, Gábor</u>	Hungarian Academy of Sciences, Pázmány Péter Catholic Univ.
12:10-12:30	TS15.3
<i>Stability of differential-difference systems</i>	
<u>Diblík, Josef</u>	Brno Univ. of Technology
12:30-12:50	TS15.4
<i>Autopilot to maintain movement of a drone in a vertical plane at a constant height in the presence of vision-based navigation</i>	
<u>Domoshnitsky, Alexander</u>	Ariel Univ.
<u>Kogan, Max</u>	Ariel Univ.
<u>Kupervasser, Oleg</u>	Ariel Univ., TRANSIST VIDEO LLC
<u>Yavich, Roman</u>	Ariel Univ.

Technical Program, Saturday, June 30, 2018

TS16	Plenary
Lyapunov Functionals and Matrices (Thematic Session) <i>Session Chair: Vladimir L. Kharitonov</i>	
14:00-14:20	TS16.1
<i>Lyapunov functionals and matrices: An overview</i>	
<u>Kharitonov, Vladimir L.</u>	Saint Petersburg State Univ.
14:20-14:40	TS16.2
<i>Stability conditions for time delay systems in terms of the Lyapunov matrix</i>	
<u>Mondié, Sabine</u>	Cinvestav, IPN
Egorov, Alexey V.	Saint Petersburg State Univ.
Gomez, Marco A.	Cinvestav, IPN
14:40-15:00	TS16.3
<i>At the junction of Lyapunov-Krasovskii and Razumikhin approaches</i>	
<u>Alexandrova, Irina V.</u>	Saint Petersburg State Univ.
Zhabko, Alexey P.	Saint Petersburg State Univ.
15:00-15:20	TS16.4
<i>Computing the delay Lyapunov matrix and H_2 norm for high dimensional systems</i>	
<u>Michiels, Wim</u>	KU Leuven

TS17	Room I
Spectral Methods for Rightmost Roots Characterization in LTI Time Delay Systems II. (Thematic Session) <i>Session Chair: Islam Boussaada</i>	
14:00-14:20	TS17.1
<i>On the dominance of multiple spectral values for time-delay systems with applications</i>	
<u>Boussaada, Islam</u>	Univ. Paris Saclay, CNRS-Supélec, IPSA
Niculescu, Silviu-Iulian	Univ. Paris Saclay, CNRS-Supélec
14:20-14:40	TS17.2
<i>On the dominant roots of a class of delay equations</i>	
<u>Atay, Fatihcan M.</u>	Bilkent Univ.
14:40-15:00	TS17.3
<i>Pseudospectral approximation of characteristic roots and multipliers: how multiplicities affect convergence</i>	
Breda, Dimitri	Univ. of Udine
Liessi, Davide	Univ. of Udine

15:00-15:20	TS17.4
<i>Spectral design of robust delayed resonator by double-root assignment</i>	
<u>Kuře, Matěj</u>	CTU in Prague
Vyhliďal, Tomáš	CTU in Prague
Michiels, Wim	KU Leuven
Boussaada, Islam	Univ. Paris Saclay, CNRS-Supélec

RS16	Room II
H_∞ Control and Fractional Order Systems (Regular Session) <i>Session Chair: Matthew M. Peet</i>	
14:00-14:20	RS16.1
<i>H_∞ optimal observer design for time-delay systems using SOS</i>	
<u>Peet, Matthew M.</u>	Arizona State Univ.
14:20-14:40	RS16.2
<i>Structured H_∞-control of infinite dimensional systems</i>	
Apkarian, Pierre	ONERA
<u>Noll, Dominikus</u>	Inst. de Math. de Toulouse
14:40-15:00	RS16.3
<i>Adaptive fuzzy backstepping control for flexible manipulator with time delay and uncertain parameters</i>	
<u>Li, Meichao</u>	Shanghai Jiao Tong Univ.
Cai, Guoping	Shanghai Jiao Tong Univ.
Chen, Longxiang	Shanghai Jiao Tong Univ.
15:00-15:20	RS16.4
<i>α-stability of a class of linear fractional-delay systems</i>	
<u>Wang, Zaihua</u>	Nanjing Univ. of Aeronautics and Astronautics
Teng, Xinghu	Nanjing Univ. of Aeronautics and Astronautics

Farewell session	Plenary
<i>Session Chair: Gábor Stépán</i>	
15:30-16:00	