

MoAM_S70

S 70

Systems Theory: Analysis, Applications, and Methods
(Regular Session)

Chair: Aubin-Frankowski,
Pierre-Cyril

INRIA

Co-Chair: Rüffer, Björn

Faculty of Civil Engineering

10:30-10:55

MoAM_S70.1

Stability of Solutions for Controlled Nonlinear Systems under Perturbation of State Constraints.

Aubin-Frankowski, Pierre-Cyril

INRIA

10:55-11:20

MoAM_S70.2

Viability and Invariance of Systems on Metric Spaces.

Badreddine, Zeinab

CNRS and Sorbonne Université

Frankowska, Helene

CNRS and Sorbonne Université

11:20-11:45

MoAM_S70.3

A Mathematical Model for Depression.

Rüffer, Björn

Faculty of Civil Engineering

11:45-12:10

Moved from FrPM_H18.1

Optimization Flows Landing on the Stiefel Manifold.

Gao, Bin

University of Münster

Vary, Simon

UCLouvain

Ablin, Pierre

CNRS, Université Paris-Dauphine,
PSL University

Absil, Pierre-Antoine

Universite Catholique De Louvain

12:10-12:35

MoAM_S70.5

Performance Estimation of First-Order Methods on Quadratic Functions.

Bousselmi, Nizar

UCLouvain

Hendrickx, Julien M.

UCLouvain

Glineur, François

Université Catholique De Louvain

TuAM_S80

S 80

Infinite-Dimensional Input-To-State Stability (Invited Session)

Chair: Schwenninger, Felix

University of Twente

Co-Chair: Hofeld, René

Bergische Universität Wuppertal

Organizer: Schwenninger, Felix

University of Twente

10:30-10:55

TuAM_S80.1

On Semi-Uniform Input-To-State Stability and Polynomial Input-To-State Stability (I).

Wakaiki, Masashi

Kobe Univeristy

10:55-11:20

TuAM_S80.2

Input-To-State Stability for Unbounded Bilinear Feedback Systems (I).

Hofeld, René

Bergische Universität Wuppertal

Jacob, Birgit

Bergische Universität Wuppertal

Schwenninger, Felix

University of Twente

Tucsnak, Marius

University of Bordeaux

~~11:20-11:45. **Talk cancelled**~~

~~TuAM_S80.3~~

~~*A Link between the Backstepping Method and the Sylvester Equation (I).*~~

~~Gagnon, Ludovick~~

~~INRIA~~

~~Hayat, Amaury~~

~~Ecole-Des-Ponts-Paristech~~

~~Marx, Swann~~

~~CNRS~~

~~Xiang, Shengquan~~

~~EPFL~~

~~Zhang, Christophe~~

~~INRIA~~

11:45-12:10

TuAM_S80.4

L^{∞} -Admissibility for Non-Strongly-Continuous Semigroups (I).

Kruse, Karsten

Hamburg University of Technology

Schwenninger, Felix

University of Twente

Lifting Techniques for Data-Driven Modeling and Control (Hybrid Session) (Invited Session)

Chair: Rosenfeld, Joel	University of South Florida
Organizer: Kamalapurkar, Rushikesh	Oklahoma State University
Organizer: Rosenfeld, Joel	University of South Florida

10:30-10:55 WeAM_H19.1

Carlemen Linearization of Nonlinear Systems and Their Convergent Finite-Section Approximations (I).

Amini, Arash	Lehigh University
Zheng, Cong	University of Central Florida
Sun, Qiyu	University of Central Florida
Motee, Nader	Lehigh University

~~10:55-11:20~~ **Talk cancelled** ~~WeAM_H19.2~~

~~*Learning Stochastic Nonlinear Dynamical Systems with Embedded Latent Transfer Operator (I).*~~

~~Kawahara, Yoshinobu Kyushu University~~

~~11:20-11:45~~ **10:55-11:20 New Time** WeAM_H19.3

Theoretical Foundations for the Dynamic Mode Decomposition of High Order Dynamical Systems (I).

Rosenfeld, Joel	University of South Florida
Kamalapurkar, Rushikesh	Oklahoma State University
Russo, Benjamin	Oak Ridge National Laboratory

~~11:45-12:10~~ **11:20-11:45 New Time** WeAM_H19.4

Kernelized Active Subspaces (I).

Russo, Benjamin	Oak Ridge National Laboratory
Rosenfeld, Joel	University of South Florida

~~12:10-12:35~~ **11:45-12:10 New Time** WeAM_H19.5

An Occupation Kernel Approach to Optimal Control (I).

Kamalapurkar, Rushikesh	Oklahoma State University
Rosenfeld, Joel	University of South Florida

Moment Problems, Convex Algebraic Geometry, and Semidefinite Relaxations - I (Hybrid Session) (Invited Session)

Chair: Infusino, Maria	University of Cagliari
Co-Chair: Henrion, Didier	LAAS-CNRS, Univ. Toulouse
Organizer: Henrion, Didier	LAAS-CNRS, Univ. Toulouse
Organizer: Infusino, Maria	University of Cagliari
Organizer: Kuhlmann, Salma	University of Konstanz
Organizer: Vinnikov, Victor	Ben Gurion University of the Negev

10:30-10:55 ThAM_H16.1

Globally Positive Trace Polynomials (I).

Volcic, Jurij Drexel University

10:55-11:20 ThAM_H16.2

Spectrahedral Shadows and Completely Positive Maps on Real Closed Fields (I).

Kummer, Mario TU Dresden

Moved to FrAM_H20.5, 12:10-12:35

~~11:20-11:45 ThAM_H16.3~~

~~*Commutative and Non-Commutative Polynomial Optimization in Quantum Optimal Control (I).*~~

~~Marecek, Jakub Czech Technical University~~

~~Vala, Jiri IBM Research~~

11:20-11:45 **Moved from FrAM_H20.5**

Tractable Semidefinite Bounds of Positive Maximal Singular Values (I).

Magron, Victor CNRS LAAS

Mai, Ngoc Hoang Anh LAAS-CNRS

Ebihara, Yoshio Kyushu University

Waki, Hayato. Institute of Mathematics for Industry, Kyushu University

11:45-12:10 ThAM_H16.4

The Truncated Moment Problem for Unital Commutative R-Algebras (I).

Curto, Raul University of Iowa

Ghasemi, Mehdi University of Saskatchewan

Infusino, Maria University of Cagliari

Kuhlmann, Salma University of Konstanz

12:10-12:35 ThAM_H16.5

On a Solution of the Multidimensional Truncated Matrix-Valued Moment Problem (I).

Kimsey, David Newcastle University

Trachana, Matina Cardiff University

Moment Problems, Convex Algebraic Geometry, and Semidefinite Relaxations - III (Invited Session)

Chair: Vinnikov, Victor	Ben Gurion University of the Negev
Co-Chair: Kuhlmann, Salma	University of Konstanz
Organizer: Henrion, Didier	LAAS-CNRS, Univ. Toulouse
Organizer: Infusino, Maria	University of Cagliari
Organizer: Kuhlmann, Salma	University of Konstanz
Organizer: Vinnikov, Victor	Ben Gurion University of the Negev

10:30-10:55

FrAM_H20.1

Moments, Sums of Squares, and Tropicalization (I).

Blekherman, Grigoriy	Georgia Tech
Rincon, Felipe	Queen Mary University of London
Sinn, Rainer	Universität Leipzig
Vinzant, Cynthia	University of Washington
Yu, Josephine	Georgia Tech

10:55-11:20

FrAM_H20.2

Signed Tropicalizations of Convex Semialgebraic Sets (I).

Skomra, Mateusz	LAAS-CNRS
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11:20-11:45

FrAM_H20.3

On the Computational Complexity of the Moment-SOS Hierarchy for Polynomial Optimization (I).

Gribling, Sander	Université De Paris, CNRS, IRIF
Polak, Sven	Centrum Wiskunde & Informatica (CWI)
Slot, Lucas	Centrum Wiskunde & Informatica (CWI)

11:45-12:10

FrAM_H20.4

Combining the SOS and SONC Cones - a Hilbert's 1888 Theorem Analogue and Further Separation Results (I).

Schick, Moritz	University of Konstanz
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Moved to ThAM_H16.3, 11:20-11:45

FrAM_H20.5

12:10-12:35

~~*Tractable Semidefinite Bounds of Positive Maximal Singular Values (I).*~~

Magron, Victor	CNRS-LAAS
Mai, Ngoc Hoang Anh	LAAS-CNRS
Ebihara, Yoshio	Kyushu University
Waki, Hayato.	Institute of Mathematics for Industry, Kyushu University

12:10-12:35

Moved from ThAM_H16.3

Commutative and Non-Commutative Polynomial Optimization in Quantum Optimal Control (I).

Marecek, Jakub	Czech Technical University
Vala, Jiri	IBM Research

FrPM_H18

H 18

Systems Theory and Geometry (Hybrid Session) (Regular Session)

Chair: Collins, Pieter

Maastricht University

Moved to MoAM_S70, 11:45-12:10

15:30-15:55

FrPM_H18.1

~~Optimization Flows Landing on the Stiefel Manifold.~~

~~Gao, Bin~~

~~University of Münster~~

~~Vary, Simon~~

~~UCLouvain~~

~~Ablin, Pierre~~

~~GNRS, Université Paris-Dauphine, PSL
University~~

~~Absil, Pierre-Antoine~~

~~Universite Catholique De Louvain~~

New time

15:30-15:55

FrPM_H18.6

Monadic Systems.

Collins, Pieter

Maastricht University

15:55-16:20

FrPM_H18.2

Hypergraph Based Distributed Quadratic Optimization.

Papastaikoudis, Ioannis

University of Cambridge

Li, Mengmou

University of Cambridge

Lestas, Ioannis

University of Cambridge,

16:20-16:45

FrPM_H18.3

Matrix Pontryagin Principle Approach to Controllability Metrics Maximization under Sparsity Constraints.

Ohtsuka, Tomofumi

Kyoto University

Ikeda, Takuya

The University of Kitakyushu

Kashima, Kenji

Kyoto University

16:45-17:10

FrPM_H18.4

Polarization of Multi-Agent Gradient Flows Over Hypersurfaces.

Mi, La

University of Luxembourg

Goncalves, Jorge M.

University of Luxembourg

Markdahl, Johan

University of Luxembourg

17:10-17:35

FrPM_H18.5

Reduced Control Systems on Symmetric Lie Algebras.

Malvetti, Emanuel

Technical University Munich

Dirr, Gunther

University of Wurzburg

vom Ende, Frederik

Technichal University Munich (TUM)

Schulte-Herbrueggen, Thomas

Technichal Univ Munich (TUM)