

International colloquium on

# Systems Theory and Control Engineering

in honour of  
Joachim Rudolph's  
60th birthday

1<sup>st</sup> – 3<sup>rd</sup> November 2023

Saarland University, Germany



## Wednesday, 1<sup>st</sup> November 2023

18:30 *Joint dinner*

## Thursday, 2<sup>nd</sup> November 2023

9:00 – 9:10 *Welcome*

9:10 – 10:00 **Adaptive bitrate for video streaming via new control-theoretic tools**

*Prof. Dr. Michel Fliess (École Polytechnique)*

10:00 – 10:50 **A data-driven model predictive control framework for nonlinear systems**

*Prof. Dr. Frank Allgöwer (University of Stuttgart)*

10:50 – 11:20 *Coffee break*

11:20 – 11:55 **Flatness: A useful property also for analysis and control of distributed parameter systems**

*Prof. Dr. Frank Woittennek (UNITI Tirol)*

11:55 – 12:30 **Decoupling of sliding modes for power electronics systems and flatness based prediction of the switching frequency**

*Prof. Dr. Albrecht Gensior (TU Ilmenau)*

12:30 – 14:00 *Lunch break*

14:00 – 14:50 **On Model Predictive Path Integral (MPPI) Control**

*Prof. Dr. Johannes Reuter (HTWG Konstanz)*

14:50 – 15:25 **Symplectic discretization methods for optimal control**

*Prof. Dr. Kathrin Flaßkamp (Saarland University)*

15:25 – 15:55 *Coffee break*

15:55 – 16:30 **Controlling industrial crystal growth – a playground for Professor Rudolph's gang and their methods**

*Dr. Jan Winkler (TU Dresden)*

16:30 – 17:05 **Industrial Applications of Model-Based Control of Active Magnetic Actuators**

*Dr. Stephan Eckhardt (Intronik GmbH)*

## Friday, 3<sup>rd</sup> November 2023

9:00 – 9:50 **Useful concepts of control theory, a personal point of view**

*Prof. Dr. Kurt Schlacher (JKU Linz)*

9:50 – 10:40 **Congestion avoidance, variable delays, flatness and model free control**

*Prof. Dr. Hugues Mounier (Université Paris-Saclay)*

10:40 – 11:10 *Coffee break*

11:10 – 11:45 **On Reducing the Synchronization Time of Turbines**

*Dr. Gerta Zimmer (Siemens Energy)*

11:45 – 12:35 **Efficient Consensus over Wireless Channels & its Use in Traffic Automation Problems**

*Prof. Dr. Jörg Raisch (TU Berlin)*

12:35 – 12:45 *Closing*

12:45 *Lunch*



### **Organizing committee:**

Prof. Dr.-Ing. Frank Woittennek

Dr.-Ing. Nicole Gehring

Dr.-Ing. Amine Othmane

M.Sc. Abdurrahman Irscheid

M.Sc. Peter Scherer

Frank Paulus-Rieth

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Saarland University  
Chair of Systems Theory and Control Engineering  
Campus A5 1  
66123 Saarbrücken, Germany