

Preliminary program of the  
4<sup>th</sup> Summer School of the IMPRS Magdeburg,  
August 31–September 04, 2015 on  
**Process Systems Engineering**

**Monday, August 31**

09:00h	<b>Opening of the summer school</b>	Andreas Seidel-Morgenstern (Max Planck Institute Magdeburg)
09:15h - 10:45h	<b>A Systems &amp; Control Perspective on Process Systems Engineering</b>	George Stephanopoulos (Massachusetts Institute of Technology)
10:45h	Coffee break	
11:00h - 12:30h	<b>A Systems &amp; Control Perspective on Process Systems Engineering (continued)</b>	George Stephanopoulos (Massachusetts Institute of Technology)
12:30h	Lunch break	
14:00h - 15:30h	<b>Control and Optimization of Batch Processes</b>	Dominique Bonvin (Swiss Federal Institute of Technology Lausanne)
15:30h	Coffee break	
16:00h - 17:30h	<b>Control and Optimization of Batch Processes (continued)</b>	Dominique Bonvin (Swiss Federal Institute of Technology Lausanne )
Evening	Get-together	

**Tuesday, Sept. 01**

09:00h - 10:30h	<b>Boundary Heat and Mass Transfer: Analytical and Numerical Approaches</b>	Jürgen Fuhrmann (Weierstrass Institute for Applied Analysis and Stochastics Berlin)
10:30h	Coffee break	
11:00h - 12:30h	<b>Boundary Heat and Mass Transfer: Analytical and Numerical Approaches (continued)</b>	Jürgen Fuhrmann (Weierstrass Institute for Applied Analysis and Stochastics Berlin)
12:30h	Lunch break	
14:00h - 15:30h	<b>Dynamic Optimization of Chemical Processes</b>	Yoshiaki Kawajiri (Georgia Institute of Technology)
15:30h	Coffee break	
16:00h - 17:30h	<b>Dynamic Optimization of Chemical Processes (continued)</b>	Yoshiaki Kawajiri (Georgia Institute of Technology)
Evening	Tba	

## Wednesday, Sept. 02

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08:30h - 10:00h	<b>Advances in Deterministic Global Optimization: From Theory to Algorithmic Methods to Computations Tools to Applications</b>	Christodoulos A. Floudas (Texas A&M University)
10:00h	Coffee break	
10:30h - 12:00h	<b>Advances in Deterministic Global Optimization: From Theory to Algorithmic Methods to Computations Tools to Applications (continued)</b>	Christodoulos A. Floudas (Texas A&M University)
12:00h	Lunch break	
13:30h - 15:00h	<b>Sampling-based Approaches for Uncertainty Tracking for Intracellular Processes</b>	Nicole Radde (University of Stuttgart)
Afternoon	<b>Excursion</b>	

## Thursday, Sept. 03

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08:30h - 10:00h	<b>Sampling-based Approaches for Uncertainty Tracking for Intracellular Processes (continued)</b>	Nicole Radde (University of Stuttgart)
10:00h	Coffee break	
10:30h - 12:00h	<b>Model-based Engineering of Complex Process Systems</b>	Constantinos C. Pantelides (Imperial College London)
12:00h	Lunch break	
13:30h - 15:00h	<b>Model-based Engineering of Complex Process Systems (continued)</b>	Constantinos C. Pantelides (Imperial College London)
15:00h	Coffee break	
15:30h- 17:00h	<b>Estimation, Modeling and Control of Crystallization Processes</b>	Zoltan K. Nagy (Purdue University)
17:00h	Coffee break	
17:30h- 19:00h	<b>Estimation, Modeling and Control of Crystallization Processes (continued)</b>	Zoltan K. Nagy (Purdue University)
Evening	tba	

## Friday, Sept. 04

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09:00h - 10:30h	<b>Scientific Computing in the Chemical Industry</b>	Anna Schreieck (BASF Germany)
10:30h	Coffee break	
11:00h - 12:30h	<b>Complex Systems Modeling</b>	Kathrin Hatz (Bayer Technology Services Germany)
12:30h	<b>Final summary</b>	Andreas Seidel-Morgenstern (Max Planck Institute Magdeburg)
12:45h	Lunch break	

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