



## Challenge Workshop

# Parameter and State Estimation

## Methods – Software – Applications

Model-based simulation and optimization methods become increasingly important for the development of new products and more efficient processes. However, successful application of model-based methods demands for the development of predictive mathematical models and their quantitative validation. This complex task requires robust and efficient numerical methods for parameter estimation. Furthermore, advanced control of processes in real time needs fast and reliable numerical methods for state estimation. This workshop aims to bring together developers of numerical methods and practitioners from academia and industry.

### Primary goals

- Present an **overview of state-of-the-art methods** for parameter and state estimation
- Discuss current **challenges** from industry and academia and **identify requirements** for the next generation of methods and software
- Foster **synergies and collaborations**



**November 10 – 11, 2015**

International Academic Forum Heidelberg  
Hauptstraße 242 • 69117 Heidelberg  
hco.iwr.uni-heidelberg.de



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# Parameter and State Estimation

## Methods – Software – Applications

We kindly invite presentations on state-of-the-art methods as well as presentations on current challenges from application areas including (but not limited to):

- Automotive Industry
- Biotechnology
- Biomedical Engineering
- Chemical Engineering
- Econometrics
- Energy Systems
- Geomatics and Navigation
- Pharmacokinetics
- Robotics

Note that the number of participants and presentation slots is limited. Please register at [hco.iwr.uni-heidelberg.de](http://hco.iwr.uni-heidelberg.de).

### **Confirmed speakers include representatives of:**

Austrian Institute of Technology, BASF SE, Deutsche ACCUmotive GmbH & Co. KG, HS Karlsruhe, SAS Institute GmbH, TU Berlin, TU Dortmund, Uni Heidelberg

### **Event Organized by:**

Heidelberg Collaboratory for Industrial Optimization (HCO)  
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### **Organizing Committee**

S. Körkel, A. Milde, S. F. Walter

### **Program Committee**

P. Bastian, H.G. Bock, T. Carraro, E. Kostina, R. Rannacher, J.P. Schlöder, M. Winckler

**Additional Information and Registration on**

# [hco.iwr.uni-heidelberg.de](http://hco.iwr.uni-heidelberg.de)