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 **KoMSO**

CHALLENGE WORKSHOP

Digital Twins: Industrial and Mathematical Challenges

MAY 7 & 8, 2019

Heidelberg Academy of Sciences and Humanities

Karlstraße 4, 69117 Heidelberg

Registration: www.KoMSO.org





UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

CHALLENGE WORKSHOP

Digital Twins: Industrial and Mathematical Challenges

Digital Twins are the next wave in simulation technologies. Digital Twins accumulate all digital knowledge, models, and data during the complete lifetime of products and systems – from their ideation to their end of life. They thus integrate model-based approaches on which classical simulation and optimization paradigms are built on as well as data analytics based approaches. Digital twins are powerful masterminds for innovation and performance. Combining engineering knowledge with available data novel services such as simulation-based monitoring and diagnosis or predictive maintenance will open new business opportunities. Digital twins are so important to business today, that they were named one of Gartner's Top 10 Strategic Technology Trends for 2017, 2018, and 2019 in a row.

This workshop brings together experts from various industrial domains (including industry users and tool providers) and academia to outline and discuss mathematical challenges associated to digital twins. The goal is to spur innovation by creating new research collaborations inspired by real world problems from a wide set of industrial applications. Confirmed speakers are:

- Carsten Dietze-Selent, SAP SE
- Dr. Dirk Hartmann, Siemens AG
- Hanno Schülldorf, Deutsche Bahn AG
- Dr. Hergen Schultze, BASF SE
- Prof. Dr. Hans Georg Bock, Universität Heidelberg
- Prof. Dr. Christof Büskens, ZeTeM Universität Bremen
- Prof. Dr. Wil Schilders, EU-MATHS-IN
- Prof. Dr. Thomas Schuster, Universität des Saarlandes

Programme-associated Activities

BMBF funding priority „Mathematics for Innovations“

Interdisciplinary Center for Scientific Computing (IWR)

Heidelberg University

Im Neuenheimer Feld 205 | 69120 Heidelberg | Germany

+49 6221-54-14 618 | anastasia.walter@iwr.uni-heidelberg.de