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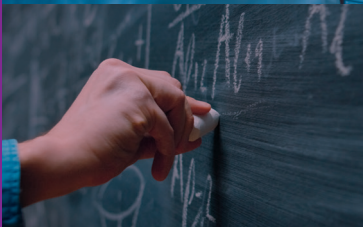
**CHALLENGE WORKSHOP**

# Mathematical Modeling of Biomedical Problems

**DECEMBER 12 & 13, 2019**

Erlangen Castle, Schloßplatz 1, 91054 Erlangen

Registration: [www.KoMSO.org](http://www.KoMSO.org)



## CHALLENGE WORKSHOP

# Mathematical Modeling of Biomedical Problems

Mathematical modeling and computing in biomedicine is a key ingredient for future developments in the field. Challenges arise from complexity of the underlying biology and other chemical and physical techniques involved in medical diagnosis and treatment. From a clinical perspective mathematical models are desired to improve and quantify the understanding and treatment of diseases, while from an industrial perspective they are needed to design and improve devices or drugs. This calls for a diversity of mathematical techniques ranging from differential equations and stochastics to image processing and data analysis, which need to be brought together in order to tackle relevant problems.

This workshop brings together experts from industry, clinical practice, preclinical research and mathematics to outline and discuss mathematical challenges associated to biomedical modeling. The goal is to identify current and future areas of need for MSO research, to spur innovation by creating new research collaborations and bridge different fields of application that can be tackled by similar mathematical approaches.

Confirmed speakers are:

- Prof. Dr. Christian Engwer (WWU Münster)
- Prof. Dr. René Pinnau (TU Kaiserslautern)
- PD Dr. Maria Neuss-Radu (FAU)
- Prof. Dr. Björn Eskofier (FAU)
- Prof. Dr.-Ing. habil. Sigrid Leyendecker (FAU)
- Christian Geppert, Ph.D. (Siemens Healthineers)

Programme-associated Activities

BMBF funding priority „Mathematics for Innovations“

Interdisciplinary Center for Scientific Computing (IWR)

Heidelberg University

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