The GAMS AG Data aims at coordinating the activities of the members of the International Association of Applied Mathematics and Mechanics (GAMS) in the field of data-based modeling, simulation and analysis in the context of microstructured materials.

Data oriented methods are a very active area of research in engineering and applied mathematics. There are nowadays indispensable tools and their development is crucial to the advancement of both academia and industry. In particular, the progress in materials engineering, combined with the advances in data acquisition, processing and mining as well as artificial intelligence, led to new paradigms in materials modelling and their numerical simulation. Developing algorithms and data processing techniques for developing new material models or processing complex and high-dimensional data sets constitute major topics within the GAMS AG Data. Innovative approaches of machine learning as well as concerning microstructure reconstructions or feature identification are of equal importance.

Organizers

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ABSTRACTS

Template: mib.uni-stuttgart.de/dae/ag-data
Format: max. 250 words, PDF & TeX
Please submit to fritzen@simtech.uni-stuttgart.de providing:
• Title, name, first name, institution

REGISTRATION & WORKSHOP FEE

Please register by email until Feb 24 to fritzen@simtech.uni-stuttgart.de. Please provide:
• Title, name, first name
• Institution, postal address, phone number

The workshop fee of EUR 150 covers workshop participation, printed program/book of abstracts, coffee breaks, workshop dinner, welcome and farewell lunch. Payment information will be sent upon registration.

DATES

Abstract submission: Feb 19, 2023
Abstract acceptance: Feb 22, 2023
Registration: Feb 24, 2023

TOPICS

• Data-supported modeling of the constitutive behavior of materials
• Data-driven simulation techniques
• Machine learning tools for materials engineering
• High-performance data-processing
• Microstructure generation, simulation and analysis, e.g. via machine learning or AI tools

OBJECTIVES

• Discuss the state of the art and recent trends in data-driven approaches
• In-depth discussions and exchange

VENUE

The workshop will take place at the University of Stuttgart on the Vaihingen Campus. It is easily reached by S-Bahn from downtown and the airport.

9th GAMM
AG Data Workshop
Stuttgart | March 20/21

Preliminary Schedule

DAY 1
12-13 h Welcome snacks & coffee
13-18 h Scientific talks
19- ? h Workshop dinner

DAY 2
9-12 h Scientific talks & closing
12-13 h Farewell snacks

About this Workshop

About GAMM AG DATA

Abstract Submission & Registration