

MSE 2024

24 - 26 Sep 2024 (Darmstadt)

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M: Modelling and Simulation

Step into the intricate world of modelling and simulation, a field that has witnessed exponential growth in its role within academic research and industrial applications. This topic serves as a vibrant platform for presenting and discussing the latest developments in connecting process nuances with the evolving properties of materials. Explore a spectrum of material modelling methods, with special emphasis on bridging scales and connecting insights across different material classes. This session promises a rich narrative, highlighting the pivotal role of simulations in shaping the future of materials science.

Topic coordinator



Prof. Dr. Alexander Hartmaier
Ruhr-Universität Bochum



Prof. Dr. Yunzhi Wang
The Ohio State University

M01: Shaping Reality: The New Age of Modelling & Simulation in Material Science - General Symposium Topic M

Prof. Dr. Alexander Hartmaier (Ruhr-Universität Bochum),
Prof. Dr. Yunzhi Wang (The Ohio State University)

M02: Computational and experimental thermodynamics and kinetics of materials

Prof. Dr. Ernst Gamsjäger (Montanuniversität Leoben), Dr.-Ing. David Henriques (Mannheim University of Applied Sciences), Prof. Dr. Andreas Leineweber (TU Bergakademie Freiberg), Dr. Stephanie Lippmann (Friedrich Schiller University Jena), Dr. Irina Roslyakova (Ruhr-Universität Bochum)

M03: Phase Field Modelling: Analysis & Benchmarks

Dr. Alphonse Finel (ONERA), Dr.-Ing. Yann Le Bouar (ONERA), Prof. Dr. Britta Nestler (Karlsruhe Institute of Technology (KIT)), Dr. Andreas Prahs (Karlsruhe Institute of Technology (KIT)), Daniel Schneider (Karlsruhe Institute of Technology (KIT))

M04: Hybrid data-driven modeling for scalable materials design

Prof. Dr.-Ing. Felix Fritzen (University of Stuttgart), Prof. Dr. Benjamin Klusemann (Helmholtz-Zentrum hereon GmbH), Prof. Dr. Markus Kästner (), Dr. Manfred Mücke (Materials Center Leoben Forschung GmbH), Dr. Irina Roslyakova (Ruhr-Universität Bochum), Dr. Daniel Scheiber (Materials Center Leoben Forschung GmbH), Dr. Jürgen Spitaler (Materials Center Leoben Forschung GmbH)

M05: Interfaces in Advanced Materials: from atomistic - to meso-scale

Dr. Reza Darvishi Kamachali (Bundesanstalt für Materialforschung und -prüfung (BAM)), Dr. Pavel Korzhavyi (The Royal Institute of Technology (KTH)), Anjana Talapatra (Los Alamos National Laboratory), Dr. Marcela Trybula (Polish Academy of Sciences)

M06: Energy Materials Research Driven by Modelling and Simulation

Dr. Pascal Boulet (Aix-Marseille University), Prof. Dr. Heechae Choi (Xi'an Jiaotong-Liverpool University), Prof. Dr. Marie-Christine Record (Aix-Marseille University)

