



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

WORKSHOP INVITATION

Modelling, Simulation, and Optimization in Molecular Systems Engineering & Life Sciences

Hosted by the Flagship Initiative Engineering Molecular Systems
and the Fields of Focus 1 and 2

Within the last decades, Modelling, Simulation, and Optimization (MSO) have become the third pillar of science besides experiment and theory. While widely established in physics, chemistry, and classical engineering due to the availability of strong models based on first principles, their impact on the life sciences has been less pronounced. Recently, data-driven methods with an emphasis on machine learning and statistics revealed the potential of MSO in the areas of molecular biophysics, molecular systems engineering, and systems biology.

This workshop aims at bringing together leading experts from the life sciences and molecular systems engineering with those from mathematics and computer science to leverage the potential of theory and modelling in these areas.

What: 15+5 min Talks + discussion about modelling, simulation, computational tools or about experimental data or experimental setups requiring new analysis tools, modelling or simulation.

Who: Members of Heidelberg University and its non-university partner institutions (EMBL, DKFZ, HITS, MPIImF, ZI) interested in “Modelling, Simulation, and Optimization in Molecular Systems Engineering & Life Sciences”

When: June 7-9th 2021, 4.00-5.30 p.m.

Where: virtual, “Zoom” for talks and plenum discussion, afterwards exchange in small groups via “wonder me”

Registration/Deadline: Please send your affiliation and research interest (max. 10 words) till **May 18th 2021** to fi-ems@uni-heidelberg.de

Program will be sent out as soon as all speakers are confirmed.