

## Call for Papers

Authors are invited to submit extended abstracts (2 pages) via the submission system on the webpage. Accepted abstracts are scheduled at the workshop.

Deadline: **December 9, 2024**

Notification of Acceptance: **February 24, 2025**

All accepted abstracts are scheduled for presentation at the workshop. Authors of accepted abstracts are invited to submit full papers for the post-proceedings. Accepted post-proceedings will be published by Springer's CCIS series. The deadline will be afterwards in July 2025.

## Registration

Registration for the workshop is possible up to May 9, 2025 via the conference homepage ([www.simscience2025.tu-clausthal.de](http://www.simscience2025.tu-clausthal.de)). Everybody is welcome to register. No invitation is required.

Early bird registration fee (until March 1, 2025) is 300 Euro. After March 1, 2025 the regular registration fee will be 350 Euro. Reduced fee for (PhD) students and SWZ, ASIM, GOR or VDE members is 250 Euro until March 1, 2025 and after this date 300 Euro. The workshop fee includes: Admission to all sessions and plenary talks, coffee breaks, lunch-snacks, the delegate's bag, a social event, and workshop dinner.

## Contact

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[www.simscience2025.tu-clausthal.de](http://www.simscience2025.tu-clausthal.de)  
[www.simzentrum.de](http://www.simzentrum.de)

**SWZ** Clausthal – Göttingen  
Simulation Science Center



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**SWZ** Clausthal – Göttingen  
Simulation Science Center



Clausthal-Göttingen  
International Workshop on

**Simulation Science**

7 – 9 May 2025  
Clausthal-Zellerfeld, Germany

Simulation-based analysis and engineering techniques are traditionally a research focus of Clausthal University of Technology and University of Göttingen, which is especially reflected in their common interdisciplinary research cluster “Simulation Science Center Clausthal-Göttingen”. The third “Clausthal-Göttingen International Workshop on Simulation Science” aims to bring together researchers and practitioners from both industry and academia to report on the latest advances on simulation science. Artificial Intelligence is a powerful tool that in many cases allows more rapid and more efficient evaluation and prediction of research data compared to conventional methods. However, the predictive power of artificial intelligence depends on the availability of large data sets. Therefore, there are various scenarios in different disciplines including natural science, materials engineering, economy and social sciences in which simulations are needed. The workshop therefore focuses on both simulations and AI and their interaction.

## Plenary Speakers

- Prof. Dr. Franziska Klügl, Örebro University (Sweden)
- Prof. Dr. Alexander Hartmaier, Ruhr-Universität Bochum (Germany)
- Prof. Dr. Piotr Faliszewski, AGH University of Science and Technology (Poland)



## Topics of Interest

The workshop considers the broad area of AI and simulation with a focus on (but not restricted to):

### Material science and engineering (MSE)

Development and applications of computational techniques in material simulation (simulation at micro atomistic, meso and macro (continuum) scales including scale bridging; diffusive, convective transport and chemical processes in materials; simulation of granular matter), Machine Learning (ML) in MSE (properties/microstructure prediction; ML in atomistic simulations; ML on continuum simulations; materials discovery)

### Socio-technical systems

Simulation of human-machine interaction (trust dimensions for human-machine hand-in-hand collaboration; validation and verification for self-adapting systems; real-time models and anticipation of human behavior in team collaboration; decentralized scheduling under complex real-world constraints; fairness and trust among heterogeneous user preferences), opinion dynamics, multi-agent systems, agent-based models, interactive simulation

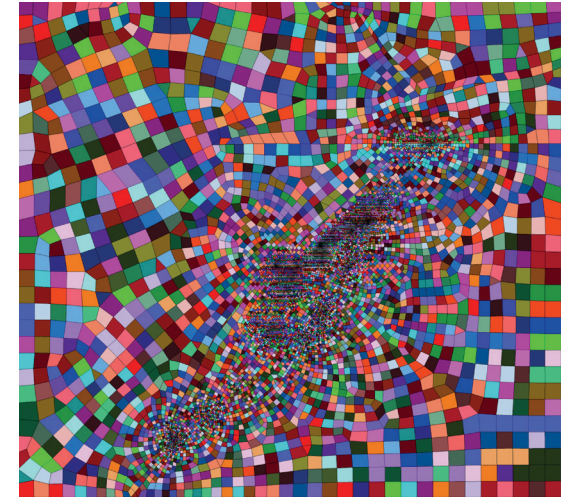
### Optimization of networks

Public and transportation networks, computer and sensor networks, queueing networks, Internet of Things (IoT) environments, electrical power grids, simulation of uncertain optimization problems, simulation of complex stochastic systems, simulation and optimization of productions and logistic systems / digital twins, process mining

## Location

The workshop will take place in the magnificent “Aula Academica” in Clausthal-Zellerfeld.

## Science meets Arts competition



Winning image of the “Science Meets Art” competition during from International Teaching Staff Week 2022 of SWZ, Author: Christian Heinrich Dörner

There will be a “Science meets Art” competition for the first time at SimScience workshop for all registered participants.

Visualization methods are an important tool in science for the analysis and presentation of scientific work. Images can often convey information in a way that tables of data or equations cannot. Occasionally, scientific images go beyond their role as a medium for conveying information and contain aesthetic qualities that make them objects of beauty and art.

Therefore, the best scientific illustration will be awarded with a book price and a certificate during the workshop. (Illustrations can be uploaded via the abstract submission system by May 7, 2025.)