

EuroSimE 2025

26th International Conference on Thermal, Mechanical and Multi-Physics
Simulation and Experiments in Microelectronics and Microsystems

Utrecht, The Netherlands | April 6–9, 2025

More information at www.eurosim.org

CALL FOR PAPERS

The 26th EuroSimE will be hosted in the city of Utrecht, Netherlands, on April 6-9, 2025. The historic city of Utrecht is centrally located in the Netherlands. The venue is easily accessible by train from Schiphol (Amsterdam) airport within 30 minutes. The conference will address results of fundamental research and industrial applications for thermal, mechanical, and multiphysics simulation and experiments of micro/nano-electronics and microsystems.

Professional training courses will be offered on April 6, 2025 followed by three days of technical sessions (April 7–9, 2025) comprising of oral and poster presentations. These sessions include Industry Keynote Talks given by Invited Speakers holding leading industrial positions to highlight major technological and industrial development trends, challenges, and roadmaps. In addition, Technical Keynote Talks will address pressing issues in modeling and experimentation for microelectronics and microsystems. In parallel, an exhibition of suppliers of experimental characterization equipment and simulation/optimization software will be hosted, demonstrating their latest features. Accepted papers will be submitted for inclusion in the IEEE Xplore digital library. The best papers will be selected for publication in Elsevier Microelectronics Reliability Journal and MDPI Micromachines Journal. Preselection of best papers candidates will be based upon abstracts that are expected to clearly highlight scope, approach and major results of the proposed contributions.

Single domain simulation

- Thermal, mechanical, thermo-mechanical, vibration, shock
- Chip package board interaction
- Advanced numerical and analytical simulations methodologies and tools
- Compact Modelling & Model Order Reduction
- Digital twins
- Advanced thermal management concepts

Material characterization and validation

- Material characterization, experiments and modelling
- Bulk and interface toughness, characterization and modeling
- Experimental methods for validation of simulation models
- Failure analysis and failure mode extraction
- Failure criteria and damage modelling for reliability prediction

Application domains

- Electronic components, packaging and system integration for applications including aerospace, automotive, energy, lighting and medical.
- MEMS sensors & actuators, piezoelectric, piezoresistive, functional ceramic sensors and components
- Opto-electronic & opto-mechanical devices
- Nano-electronic mechanical devices
- Consumer electronics

Multi-physics simulation

- Multi-physics simulation (MEMS, manufacturing and process models, electronic control unit/system level, fluid structure interactions)
- Multi-scale modelling and simulation
- Integrated process modelling
- Simulation-based optimization, virtual prototyping and pre-qualification in product and process design
- Simulations for heterogeneous integration

Emerging modeling methods and tools

- Prognostics and Health Management (PHM)
- Development and implementation of artificial intelligence and machine learning
- Use of big data in simulation & reliability applications
- 3D packaging, TSV technology, heterogeneous integration, chiplet packaging
- Additive manufacturing (3D printing) for electronics

Important dates

Abstract submission deadline: **November 04 2024**

Notification of acceptance: **December 20, 2024**

Full manuscript submission deadline: **February 28, 2025**

