

E-MRS Fall Meeting 2026 – Warsaw

Symposium Flyer



From Atoms to Applications: Multiscale Modeling and Data-Driven Strategies for Advanced Materials

 September 16–17, 2026 | Warsaw, Poland

Abstract submission deadline: June 1st, 2026

About the Symposium

Advances in materials science increasingly rely on the integration of theoretical understanding, computational modeling, and data-driven approaches. This symposium focuses on multiscale modeling strategies that connect atomistic mechanisms with macroscopic material behavior, enabling predictive insights into complex materials systems. Contributions will address electronic structure calculations, atomistic simulations, mesoscale and continuum modeling, as well as emerging machine learning approaches for materials discovery and design. Particular emphasis will be placed on linking simulations with experiments to improve predictive capabilities. The symposium will cover applications in energy technologies, nuclear materials, electronics, and materials processing and fabrication; fostering interdisciplinary collaboration across the computational and experimental materials science community.

Key Topics

- Multiscale modeling (DFT → MD → continuum)
- Machine learning for materials discovery
- Surrogate modeling
- Integration of simulations with experiments
- Transition state theory and accelerated dynamics
- Data-driven microstructural analysis
- Uncertainty quantification
- Materials for energy and nuclear technologies

Invited Speakers

- Dr. Laurance Luneville – CEA Paris-Saclay, France
- Prof. Konrad Perzyński – AGH University of Krakow, Poland
- TBA (AI for Materials)

Scientific Committee

1. J. Byggmästar (University of Helsinki, Finland)
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12. P. Canca (IFMIF-DONES, Spain)
13. D. Massa (IDEAS Research Institute, Poland)
14. J. Wrobel (Technical University of Warsaw, Poland)
15. S. Suman (VTT, Finland)

Publication Opportunity

Selected papers will be considered for publication in:
Modelling and Simulation in Materials Science and Engineering .



Organizers



Dr. Mark Fedorov
National Centre for Nuclear
Research (NCBJ), Poland



Dr. David Simeone
Université Paris-Saclay /
CEA, France



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