Important Dates

| Abstract submission | 31.01.2025 |
|----------------------------|------------|
| Notification of acceptance | 15.03.2025 |
| Early registration | 30.01.2025 |
| Regular registration | 15.04.2025 |
| Payment | 01.05.2025 |
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PTMKM

Members

Participants

PhD Students

Venue

The venue of the conference will be campus of the Lodz University of Technology located at The Politechnika Avenue.

Lodz has its airport (LCJ) with a few international connections with Brussels, Milano or London and is located close to the crossing of the highways A1



and A2. It is also easily accessible via fast train from the International Chopin Airport in Warsaw.



Lodz University of Technology Rector - prof. Krzysztof Jóźwik

Organising committee

Chairman of the OC

Prof. Marcin Kamiński, Department of Structural Mechanics, Faculty of Civil Engineering, Architecture and Environmental Engineering

Prof. Marcin Koniorczyk, TUL Dr hab. Eng. Michał Guminiak, prof. PUT Dr hab. Eng. Robert Cichowicz, prof. TUL Dr Eng. Tomasz Waśniewski, TUL Dr Eng. Marek Wojciechowski, TUL Dr Eng. Rafał Bredow, TUL Dr Eng. Elżbieta Habiera - Waśniewska, TUL Dr Eng. Martyna Rabenda, TUL Dr Eng. Paulina Świątkiewicz, TUL Dr Eng. Rafał Ossowski, Łódź MSc. Rafał Wijata, ISD,TUL Msc. Safdar Iqbal, ISD, TUL

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26th International Conference On Computer Methods in Mechanics July, 8-11, Łódź, Poland www.cmm2025.p.lodz.pl

Organized by



Lodz University of Technology ₽∽₽

Under auspices of:

Institute of Fundamental Technological Research o the Polish Academy of Sciences

Committee on Mechanics of the Polish Academy of Sciences

Committee on Civi Engineering and lydroengineering of th Polish Academy of Sciences

Scientific Patronage:

Zienkiewicz Institute for Modelling. Data and Al



Design by Tomasz Waśniewski

Łódź

City of Four Cultures

Scope and Objectives

The main objective of the Conference is to present and review the latest achievements in computer methods in mechanics. The four-day conference will be filled with a variety of session formats, with a balance of research and practice to permit the widest possible participation, providing an excellent forum to exchange ideas and to progress the field. The organizers hope that the Conference will be fruitful for the all participants.

The 26th International Conference on Computer Methods in Mechanics continues the 50-year-old series of conferences dedicated to numerical methods and their applications in the mechanicsbased problems. The scientific meetings, organized biannually since 1973, provide a forum for presentation and discussion of new ideas referring to theoretical background and practical applications of computational mechanics.

Plenary lectures

prof. Chongmin Song, UNSW Sydney, Australia

prof. Michael Beer, Leibniz Universitaet Hannover, Germany

prof. Pol Spanos,Rice University, Houston, Texas, USA

prof. Chenfeng Li, Zienkiewicz Institute for Modelling, Data & AI, Swansea University, UK

prof. George Stefanou, Aristotle University in Thessaloniki, Greece

Prof. Nicholas Fantuzzi, University of Bologna, Italy

prof. Christian Hellmich, Technische Universitaet Wien, Austria

prof. Alberto Corigliano, Politecnico di Milano, Italy

Topics

Solid Mechanics

- Contact and Friction
- Damage Mechanics
 Elasticity, Plasticity,
- Viscoplasticity and Creep
- Fracture Mechanics
- Geophysics and Geomechanics
- Impact Mechanics and Wave
- PropagationMulti-component Materials
- and Composites

Fluid Mechanics

- Biological Fluid Mechanics
- Boundary Layers
- Combustion and Flames
- Compressible Flow
- Convection
- Drops, Bubbles and Multiphase Flows
- Flow Instability and Transition
- Flow in Thin Films
- Geophysical and

Computational Mechanics

- Artificial intelligence methods
- Computational intelligence
 Sensitivity and reliability analysis
- Inverse problems and
- optimization • Advanced Finite Element Method, Finite Volume Method and Boundary Element Method

Solid/Fluid Interaction

- Acoustics
 Experimental Methods in
- Mechanics
- Chaos and Pattern Formation
- Porous Media
- Advanced Materials

 Vibrations and Control of Structures
 Other Topics in Solid Mechanics
 Environmental Fluid Dynamics
 Low Reynolds Number Flow
 Misro- and Nano-fluidics

Phase Transformations

Multibody, Vehicle and

Structural Dynamics

Stability of Structures

Nanostructures and MEMS

Phenomena

and Thermomechanical

- Micro- and Nano-fluidics
 Non-Newtonian and Complex Fluids
 Turbulence, Vortex Dynamics
 Waves in Fluids
- Other Topics in Fluid Mechanics
- Discrete Element Method
 Meshless and related methods
 Stochastic Mechanics and Reliability
 Parallel computing
 Soft computing
 Exascale Computing
 Other Topics in
- Computational Mechanics
- Fluid Structure Interactions
 - Actuating and Smart
- Materials
- Granular Materials and
- Flows
- Foams and Cellular

Biomechanics

Interdisciplinary engineering

Proceedings

Accepted abstracts will be printed in the Conference Book of Abstracts in electronic copy. Full-length articles contributed by keynote speakers and chosen presented during Conference will be published in some major international Journals related to computational mechanics. The details will be provided later on the website.

Conference format

During the Conference, plenary and keynote lectures, joint sessions and parallel sessions, as well as oral and poster presentations, will be delivered in the auditoria and lecture rooms of Alchemium Conference Center and also Computer Technology Center, located both in campus of Lodz University of Technology.

Social events

Lodz is a vibrant and energetic academic city in the same heart of Poland. Social events at the TUL Sports Bay and trips to the Manufaktura center, EC 1 Lodz - Culture City hosting Science Center, and also Geyer's Gardens are planned. Close neighborhood of Piotrkowska Street with its huge number and diversity of restaurants and pubs is awaiting for the Conference Participants.

Chairmenship

Conference Honorary President

Michał Kleiber

Polish Academy of Science

Chairman of the Honorary Scientific Commitee

Tadeusz Burczyński Institute of Fundamental Technological Research of Polish Academy of Sciences

Chairmen of the Scientific Commitee

Wojciech Sumelka Marcin Kamiński Poznań University of Technology Lodz University of Techn<u>ology</u>

President of the Polish Association for Computational Mechanics Wojciech Sumelka