

# 43<sup>rd</sup> SOLID MECHANICS CONFERENCE

# Sol Mech 2024

Wrocław, Poland  
16-18 September 2024



Institute of Fundamental  
Technological Research  
Polish Academy of Sciences



Wrocław University  
of Science and  
Technology

Under the auspices of



Committee on  
Mechanics Polish  
Academy of Sciences



Polish Association for  
Computational  
Mechanics

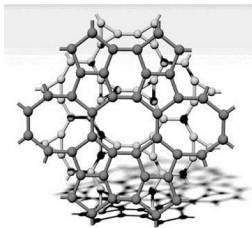
<https://solmech.pl/>

## About

The series of Solid Mechanics Conferences have been organized by the Institute of Fundamental Technological Research since 1953. The conferences have consistently maintained high scientific standards and served as a forum for the exchange of ideas and research information. Traditionally, these conferences feature plenary lectures delivered by renowned experts in the field. The conference aims to bring together researchers from around the world and provide an opportunity to present their research in the wide range of areas covered by solid mechanics, which include but are not limited to:

- biomechanics
- composite materials and structures
- computational methods of mechanics
- continuum mechanics, elasticity and plasticity
- coupled and multiphysics problems
- dynamics of solids and structures
- experimental mechanics
- fracture, damage and fatigue
- geomechanics and granular materials
- interfaces, thin layers and contact mechanics
- manufacturing processes and materials processing
- mechanics of composites, porous materials
- mechanics of defects (cracks, dislocations)
- micromechanics and thermodynamics of materials
- nanomechanics, atomistic and multiscale modelling
- optimization, sensitivity and reliability analysis
- phase transitions and microstructures
- plates and shells
- smart materials and structures
- structural mechanics.

The official language of the Conference is English.



inspiring engineering solutions

## Invited Plenary Lectures

**Henryk Petryk**, Poland

*Thermodynamic approach to macroscopic modelling of inelastic solids with microstructural instabilities*

**Javier Segurado**, Spain

*Stochastic approaches coupled with FFT solvers for simulating defect interaction and evolution in metals.*

**Paul Steinmann**, Germany

*In the treadmill: the weirdness of flow-immersed soft particles*

**Christophe Martin**, France

*Discrete Element Simulation for particulate materials: from compaction to sintering and fracture*

**Zhuo Zhuang**, China

*Theoretical and computational model of shell fracture and engineering application*

**Danny Van Hemelrijck**, Belgium

*Additive manufacturing, an emerging technology with a bright future?*

## Abstracts

A one-page abstract (in PDF format) should be submitted no later than **28 February 2024**. Guidelines and templates are available at the Conference website <https://solmech.pl/abstracts-papers/>. Authors will receive notification of acceptance of their proposed contribution after a reviewing procedure.

Abstracts should be submitted after registration via the conference webpage:

<https://solmech2024.systemcoffee.pl>.

Authors will be provided an opportunity to submit **full-length papers** for publication following a peer review process in *Archives of Mechanics*, *CAMES*, or *Engineering Transactions*.

## Scientific Committee

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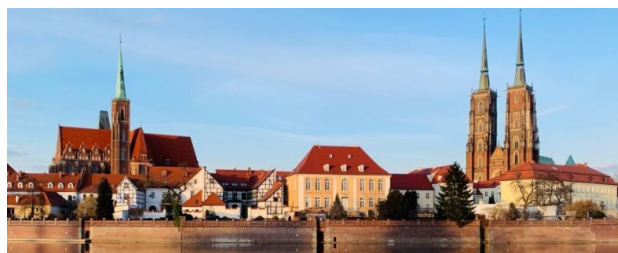
Scientific Secretary: S. Nosewicz

Project Manager: A. Skowron

Team: G. Jurczak, P. Tazowski, F. Nisar, L. Lepszy,  
M. Krzyżaniak, H. Babijew, M. Alchimowicz,  
A. Szymoniak

## Conference Venue

The conference venue is located on the Campus of Wrocław University of Science and Technology. SolMech2024 will take place in building D-20 of the Faculty of Electrical Engineering. The campus is easily accessible, and Wrocław Old Town is approximately 2 km away from the venue.



Wrocław, the capital of Lower Silesia, is located in south-western Poland. It is one of the oldest and third-largest cities in Poland, with a history that dates back over one thousand years. One of the books by famous British historians presents Wrocław as a microcosm of central Europe as it bears a complex of hallmarks suggesting the historical experience of that region.

Owing to its cultural and heritage value, the city attracts hundreds of thousands of tourists each year. Wrocław Old Town is particularly listed in the Registry of Objects of Cultural Heritage. The city also had the honour of being the European capital of culture for 2016. It possesses many historical landmarks, and one of these gems is Centennial Hall, registered as a UNESCO World Heritage Site. Literately, Wrocław has a significant history and therefore holds the distinguished title of a UNESCO City of Literature and world book capital for 2016. The city on the banks of the Oder river, also known as the "City of 100 Bridges", is often featured as the world's most liveable city and has the warmest climate in Poland. The month of September is generally sunny, with temperatures of 15 – 20°C.

## Conference Fee

Registration fee includes conference materials, refreshments, lunches and social events (Welcome Reception, Gala Dinner and city sightseeing).

### Registration fees

**Regular: 2700 PLN** (by 6 May 2024)  
**3000 PLN** (after 6 May 2024).

**Student: 2200 PLN** (by 6 May 2024)  
**2400 PLN** (after 6 May 2024).

**Accompanying person: 1900 PLN.**

**Deadline for normal fee payment is 31 May 2024.**

A one-day post-conference tourist trip to attractive places in Lower Silesia is planned after the Conference. The cost of the tour is not included in the conference fee.

## Accommodation

Accommodation is not included in the conference fee. A number of hotels of various standards and convenient locations in Wrocław can be found on the Booking search engine: <https://www.booking.com>.

You are also welcome to take advantage of the discount offers prepared for event participants. At the Conference web page you may find a list of such hotels in the vicinity of the conference venue.

## Contacts

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