

## TIME AND PLACE OF THE CONFERENCE

The conference will be held on September 13-16, 2017 in the building of the Faculty of Civil Engineering and Architecture, Lublin University of Technology, Nadbystrzycka 40, Lublin, Poland.

## CONFERENCE FEE

	Early	Regular
Participants	400 EUR	500 EUR
Young scientists (PhD Students)	300 EUR	350 EUR
Accompanying persons*	275 EUR	300 EUR
*The author or co-author cannot be treated as accompanying person		
Publication of the second full paper presented at the Conference		200EUR

Please note: the registration fee reduction of 25 € is offered to every Member of Polish Association for Computational Mechanics.

The Conference fee includes a copy of the conference proceedings, refreshments and lunches, banquet, gala evening, half-day tour and taxes.

(One full paper per registred participant)

Account number for conference fee transfer and other important details are available at the conference website: [cmm2017.pollub.pl](http://cmm2017.pollub.pl).

## ACCOMMODATION

Suggestions of the hotels nearby the conference venue are available at the conference website. [cmm2017.pollub.pl](http://cmm2017.pollub.pl)

## IMPORTANT DATES

Extended abstract submission deadline	28 February 2017
Information on papers acceptance and sending the reviews to the authors	30 April 2017
Submission of revised versions of the extended abstract	31 May 2017
Early registration fee deadline	15 June 2017
Regular registration fee deadline	31 July 2017
Conference	13-16 September 2017
Full papers submission deadline	15 October 2017

## ADDRESS FOR CORRESPONDENCE

CMM2017 Organizing Committee,  
Faculty of Civil Engineering and Architecture, Lublin University of Technology,  
Nadbystrzycka 40, 20-618 Lublin, Poland

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# CMM 2017

## 22<sup>ND</sup> INTERNATIONAL CONFERENCE ON COMPUTER METHODS IN MECHANICS

SEPTEMBER 13-16, 2017, LUBLIN, POLAND

## 2<sup>ND</sup> ANNOUNCEMENT

22<sup>nd</sup> International Conference on Computer Methods in Mechanics,  
September 13-16, 2017, Lublin, Poland

## AUSPICES

The Committee on Mechanics Polish Academy of Sciences (PAS)  
The Committee on Civil Engineering and Hydroengineering PAS  
The Committee on Informatics PAS

## ORGANIZERS

Polish Association for Computational Mechanics  
Lublin University of Technology  
Faculty of Civil Engineering and Architecture  
Faculty of Mechanical Engineering



## CONFERENCE PROGRAM

The 22<sup>nd</sup> International Conference on Computer Methods in Mechanics (CMM2017) continues the 44-year series of Polish conferences dedicated to numerical methods and their applications to the problems governed by the laws of mechanics.

During the conference three types of sessions will take place: plenary sessions, thematic sessions and minisymposia.

In the plenary sessions, there will be given lectures by internationally renowned scientists on the greatest achievements in computer methods. Other papers will be assigned to minisymposia or thematic sessions on the basis of authors' declaration or decision of the Scientific Committee.

### Plenary Lectures

#### Professor Holm Altenbach

(co-author Prof. Daniel Juhre)

New Trends in Continuum Mechanics and Challenges for Numerical Mechanics

#### Professor Balakumar

Balachandran

GPU Based Computational Dynamics

#### Professor René de Borst

Isogeometric Analysis of Damage and Fracture in Thin-Walled Structures

#### Professor Celso Grebogi

Compressive Sensing Based Prediction of Complex Dynamics and Complex Networks

#### Professor Gaëtan Kerschen

Nonlinear Normal Modes and Resonances of Mechanical Systems

#### Professor Stefano Lenci

How the axial vibrations couple with the transversal vibrations in Timoshenko beams

#### Professor Ewa Majchrzak

Selected Problems of Bioheat Transfer Modelling

#### Professor Giuseppe Rega

Nonlinear Dynamics and Control in Macro- and Micro-Mechanics: Some Computational Issues

#### Professor Błażej Skoczeń

Constitutive Modelling of Strain Induced Coupled Phenomena in Engineering Materials Applied at Cryogenic Temperatures

### Mini-symposia

**MS01:** Optimization of Structures:

80th Birthday Jubilee Session for Prof. Andrzej Garstecki

**MS02:** Multiscale Modelling of Materials and Structures

**MS03:** Adaptive Methods and Error Estimation

**MS04:** Modeling and Analysis of Sandwich Structures

**MS05:** Numerical Heat and Mass Transfer

**MS06:** Isogeometric Analysis and Applications

**MS07:** Numerical Simulation of Solid Mechanics Experiments

**MS08:** Coupled Problems in Concrete Modelling

**MS09:** Computational Methods for Structural Dynamics and Vibration Problems

**MS10:** Computer Methods in Wind Engineering

**MS11:** Mechanics in Engineering Problems

**MS12:** Numerical Analyses for Concrete Structures

**MS13:** Non-conventional Methods for Solid Mechanics

**MS14:** Numerical Analyses in Metal Structures

### Thematic Sessions

- adaptive materials systems,
- structures and smart materials,
- artificial intelligence methods,
- biomechanics,
- contact mechanics,
- computational intelligence,
- concrete, ceramic and geomaterials,
- coupled field problems,
- dynamics of multibody systems,
- experimental mechanics,
- fluid mechanics, including modeling of blood flow,
- fracture mechanics,
- geophysics,
- growth phenomena and evolution of microstructures,
- heat transfer,
- industrial applications,
- inverse problems and optimization,
- mechanics of multiphase and porous materials,
- mechanics of plates and shells,
- meshless and related methods,
- multiscale problems and nanomechanics,
- numerical analysis of the initial and boundary value problems in mechanics,
- parallel computing,
- response of structures to extreme actions,
- soft computing,
- solid mechanics, structural and composite mechanics.

## CONFERENCE PUBLICATIONS

Extended abstracts accepted for the conference will be printed in a conference book. Extended abstracts submission deadline is **28 February 2017**.

Document template available at conference website: [cmm2017.pollub.pl](http://cmm2017.pollub.pl)

Full-length papers contributed and presented at the Conference by plenary lecturers and other speakers can be published after the review process in AIP Conference Proceedings. AIP Conference Proceedings are indexed in a number of services, including these leading databases: The Conference Proceedings Citation Index (part of Web of Science), Scopus (Elsevier), Inspec, Chemical Abstracts Service (CAS), Astrophysics Data System (ADS).

Full papers should be prepared according to the AIP Conference Proceedings guidelines and sent after the Conference (until 15 October 2017) to the organizers.

Only one full paper can be submitted by a registered participant within the conference fee. The second paper presented at the conference by the participant can be published provided that the additional fee of 200 EUR is paid.

Papers can also be published in CAMES: Computer Assisted Methods in Engineering and Science.

## SCIENTIFIC COMMITTEE

Chairman:

**Prof. Tadeusz Burczyński**, Institute of Fundamental Technological Research of Polish Academy of Sciences, Warsaw,

Vice-chairman:

**Prof. Mieczysław Kuczma**, President of the Polish Association for Computational Mechanics, Poznan University of Technology,

**Prof. Jerzy Warmiński**, Lublin University of Technology, Faculty of Mechanical Engineering, Department of Applied Mechanics.

Full list of the Scientific Committee members and International Advisory Board is available at the conference website.

## ORGANIZING COMMITTEE

Chairman:

**Prof. Jerzy Podgórski**, Lublin University of Technology, Faculty of Civil Engineering and Architecture, Department of Structural Mechanics,

Vice-chairman:

**Prof. Ewa Błazik-Borowa**, Lublin University of Technology, Faculty of Civil Engineering and Architecture, Department of Structural Mechanics,

**Prof. Andrzej Teter**, Lublin University of Technology, Faculty of Mechanical Engineering, Department of Applied Mechanics,

Secretary:

**Dr. Jarosław Bęc**, Lublin University of Technology, Faculty of Civil Engineering and Architecture, Department of Structural Mechanics

and other members from Faculty of Civil Engineering and Architecture, and Faculty of Mechanical Engineering, Lublin University of Technology.

More details on conference website: [cmm2017.pollub.pl](http://cmm2017.pollub.pl)