



Sofia, September 6<sup>th</sup> – 10<sup>th</sup>, 2017

## 13<sup>th</sup> National Congress on Theoretical and Applied Mechanics with International Participation

Since its inception in 1969, the quadrennial National Congress of Theoretical and Applied Mechanics has become major scientific event, gathering Bulgarian and foreign scientists and engineers from academia and industry. The 13<sup>th</sup>NCTAM will provide opportunities for researchers to present their latest results, to discuss new ideas and to establish a basis for future collaboration.

**Registration:** <http://congress.imbm.bas.bg>

### Venue & Accommodation

The Congress will be held in Sofia at the Institute of Mechanics, Campus I of the Bulgarian Academy of Sciences, from 6<sup>th</sup> to 10<sup>th</sup> September 2017. Additional details on accommodation and transport will be available on the Congress webpage <http://congress.imbm.bas.bg/>.

### Congress Topics

#### General Mechanics

Analytical mechanics; Stability analysis and control theory; Dynamical systems; Thermodynamics and statistical mechanics; Theory of mechanisms and machines; Mechatronics; Computational mechanics; History of mechanics, etc.

#### Solid Mechanics

Elasticity; Plasticity; Damage and fracture; Composite materials; Smart materials; Beams, plates and shells; Dynamics of structures; Noise and vibrations; Contact problems; Coupled fields; Impact and wave propagation; Seismic mechanics; Micro- and nano-mechanics; Design and characterization of macro-, micro- and nano-structured materials; Polymer nanocomposites; Reinforced polymers, foams and recycled plastics; Fibre reinforced high-strength concrete; Self-compacting concrete, etc.

#### Fluid Mechanics

Viscous fluids; Conducting and magnetic fluids; Compressible and rarefied gases; Boundary layers; Bubbles and drops; Thin films and jets; Multiphase flows; Flow in porous solids; Waves; Turbulence; Heat and mass transfer; Combustion and flames; Microfluidics; Geophysical and environmental fluid dynamics; Experimental methods in fluid mechanics; Hydrodynamics, etc.

#### Biomechanics

Biological flows; Mechanics of cardiovascular system; Biorheology; Molecular biomechanics; Tissue engineering; Mechanics of bones and tissues; Mechanics of cell membranes; Orthotics and prosthetics; Locomotion; Rehabilitation robotics; Human-robot interaction, etc.

#### Minisymposia

### Call for Contributions

Authors wishing to contribute to the Congress are invited to register and submit electronically, using the **Congress website** <http://congress.imbm.bas.bg>, up to one-page (4000 characters) plain text abstract. It should contain title of the contribution, authors' names, postal addresses and e-mails. Authors will receive notification of acceptance of their proposed contributions. Prior to the beginning of the Congress, the authors should upload the full-length papers via the *Congress website* for reviewing. Guidelines for Authors are available in the *Congress website*. Those who wish to organize **mini-symposia on special topics** should contact the Organizing Committee **by 15 March 2017**.

### Publications

Congress participants may choose to publish their full-length contributions in either the Congress proceedings (ISSN: 1313-9665), or in the journals issued by the Institute of Mechanics – *Journal of Theoretical and Applied Mechanics* and *Series on Biomechanics*, which are abstracted in *SCOPUS*. Special issues of internationally refereed journals are also envisaged.

## Congress Fees

### Regular Fees

**240 Euro** paid before **15 June 2017**

**290 Euro** paid after **15 June 2017**

**100 Euro** for an accompanying person paid before **15 June 2017**

**120 Euro** for an accompanying person paid after **15 June 2017**

- *The regular fee will cover participation in all sessions, the Congress book of abstracts and the Congress proceedings, welcome reception, lunches and coffee breaks, banquet and excursions.*

### Reduced Fees

Prospective participants can apply for reduction of the registration fee. Priority will be given to Young Scientists and Postgraduate Students.

A registration fee exemption will be provided to the organizers of mini-symposia.

Special grants to partial reduction of the registration fee will be available for the Participants from Members of the Bulgarian Society of Theoretical and Applied Mechanics.

- *The reduced fee will cover participation in all sessions, the Congress book of abstracts and the Congress Proceedings, welcome reception and coffee breaks.*

## Deadlines

**15 March 2017** – submission of proposals for parallel mini-symposia

**15 April 2017** – online submission of abstracts

**15 May 2017** – notification of abstract acceptance

**15 June 2017** – early registration

## Advisory Committee

**Chairman:** **Stefan Radev**

**Members:** Yachko Ivanov, Anguel Baltov, Venelin Zhivkov, Georgi Zahariev, Yordanka Ivanova, Mitko Mihovski, Kliment Hadjov, Petar Kolev, Zaprian Zaprianov, Nikolay Minchev, Marko Todorov, Ivelin Ivanov, Evtim Zahariev, Ivanka Paskaleva, Detelina Ignatova, Emil Manoach, Ivan Markov, Sonia Tabakova, Viktor Chirikov

## International Scientific Committee

**Marcilio Alves** (Sao Paulo, Brazil); **Guoxing Lu** (Melbourne, Australia); **Lounès Tadrif** (Marseille, France); **George Manolis** (Thessaloniki, Greece); **Nikita Morozov** (St. Petersburg, Russia); **Leonid Turchak** (Moscow, Russia); **Tom Schanz** (Bochum, Germany); **Dietmar Gross** (Darmstadt, Germany); **Frank Wuttke** (Kiel, Germany); **Valentin Gushchin** (Moscow, Russia); **Anatoly Filippov** (Moscow, Russia); **Eliot Fried** (Okinawa, Japan) ...

## Organizing Committee

**Chairman:** **Vasil I. Kavardzhikov**

**Secretaries:** Vassil M. Vassilev, Svetoslav G. Nikolov

**Members:** Maria Datcheva, Roussislava Zaharieva, Stefan Karastanev, Sergey Ranhev, Yonka Ivanova, Sonia Parvanova, Juliana Javorova, Georgi Vukov, Lukan Chervenkov, Vladimir Matuski

## Address for Correspondence

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