

Organizers

Dr. Radek Kolman
Institute of Thermomechanics
The Czech Academy of Sciences
Prague, Czech Republic

For details see
<http://wavemodelling2018.it.cas.cz>

The 2nd International Conference on Advanced Modelling of Wave Propagation in Solids

and
Dr. Arkadi Berezovski
School of Science
Tallinn University of Technology
Tallinn, Estonia

In collaboration with
Czech Society for Mechanics
Central European Association for Computa-
tional Mechanics.

Prague is the beautiful capital of the Czech Republic. Standing in the 650 years old Charles bridge, surrounded by Baroque statues and Gothic bridge towers, looking at the castle, residence of the Czech kings and presidents, situated above the river is an experience you will never forget. Some visitors say it is the nicest panorama of the whole world. Today with population of 1,4 million and more than 500 spires it is also called "The Heart of Europe" or "The Golden Prague".

**Prague,
Czech Republic**

September 17- 21, 2018

**The FIRST ANNOUNCEMENT
AND CALL FOR PAPERS**



Scope

The 2nd International Conference on Advanced Modelling of Wave Propagation in Solids aims to bring together scientists and engineers with interest in advanced modelling of wave propagation in solids. The Conference on Advanced Modelling of Wave Propagation in Solids will concentrate on topics related to analytical, numerical and experimental studies of linear and non-linear waves in conventional, advanced and modern materials, to strongly dispersive wave propagation in inhomogeneous solids, and to waves in materials with microstructure, etc. Attention will also be devoted to up-to-date formulations of non-linear constitutive equations in the description of material response under thermo-mechanical loading, dynamic fracture and damage, phase transformations, shock waves, and to dissipative effects.

The recent advances and properties of analytical and numerical approaches and strategies should also be discussed. The main purpose of the Conference on Advanced Modelling of Wave Propagation in Solids is to discuss novel and recent methods of wave propagation modelling and to consider expected credibility of results especially in cases when comparison with those of experiment is not available. Theoretical, computational as well as experimental contributions on the wave propagation in solids are welcome.

Topics

- Linear and non-linear waves in solids and advanced materials.
- Shock waves and solitary waves.
- Waves in strongly dispersive and heterogeneous media.

- Wave propagation in materials with microstructure, metamaterials and auxetic materials.
- Wave propagation in periodic materials and structures.
- Dynamic response of materials under complex thermomechanical loading.
- Characterization of material properties in extremal loading applications.
- Recent advances in experimental techniques in wave propagation and shock waves in solids.
- Recent developments of analytical and numerical methods for wave propagation and transient problems in solids.
- Verification and validation of modern analytical and numerical methods, analysis of their accuracy and stability.
- Industrial applications of wave propagation problems in solids.

Call for Papers

Authors are invited to contribute papers on the areas of the conference topics. Presentation will be of 30 minutes duration including discussion and should be presented in English. Contributors are requested to submit to the Organizing Committee **a two-page long abstract** of proposed paper including title, author's name, affiliation, and contacts, either by e-mail, or by mail, till the **end of February 2018**. Abstracts will be reviewed by organizers and authors will be notified about acceptance by **March 15 2018**. Guidelines for the preparation are presented at website. Book of abstracts as a printed copy, carrying ISBN identifier and accompanied by a CD ROM, will be distributed among participants during the registration.

Important dates

Pre-registration due	December 31, 2017
Abstracts due	February 28, 2018
Notification of acceptance	March 15, 2018
Early registration and payment due	April 30, 2018
Regular payment due	June 30, 2018

Scientific Committee

Prof. Ch.-S. Chen, Taipei, Taiwan
Prof. J. Engelbrecht, Tallinn, Estonia
Prof. J. Gonzalez, Seville, Spain
Prof. D.M. Kochmann, Pasadena, U.S.
Prof. D. Komatitsch, Marseille, France
Prof. B.T. Maruszewski, Poznan, Poland
Prof. O. Okrouhlík, Prague, Czech Republic
Prof. K.C. Park, Boulder, U.S.
Dr. J. Plešek, Prague, Czech Republic
Dr. Z. Převorovský, Prague, Czech Republic
Prof. E. Rohan, Pilsen, Czech Republic
Prof. J. Sládek, Bratislava, Slovakia
Prof. S. Sorokin, Aalborg, Denmark
Dr. A. Tkachuk, Stuttgart, Germany
Prof. E. Zaretsky, Beer Sheva, Israel

Early registration fee including social programme, coffee breaks, book of abstracts:

For Ph.D. students: **350 EUR**

For regular participants: **450 EUR**

Address and Venue

Institute of Thermomechanics, the Czech Academy of Sciences, Dolejškova 140 2/5 182 00 Prague 8, Czech Republic

Contacts

E-mail: wavemodelling2018@it.cas.cz

Website: <http://wavemodelling2018.it.cas.cz>