

Fourth International Conference on Recent Advances in Nonlinear Mechanics RANM2019



7-10 May 2019, Lodz, Poland

About RANM 2019

The conference series entitled Recent Advances in Nonlinear Mechanics (RANM) is aimed to gather leading researchers from three major areas of mechanics, namely, dynamics, fluids and materials. Both fundamental and applied problems are of interest, where nonlinearities or nonlinear interactions play major roles.

Conference series has been founded by Marian Wiercigroch from the University of Aberdeen, Scotland, UK. The first conference Conference was held in Aberdeen in August 2005, while the second RANM conference was organized in Kuala Lumpur, Malaysia in August 2009 by Ko Choong Woo of the University of Nottingham in Kuala Lumpur. The third edition took place in Harbin, China in January of 2014, and was organized by Qingjie Cao of the Harbin Institute of Technology.

The fourth RANM conference will be held in Lodz in May 2019 and will be hosted by Lodz University of Technology (TUL), which is one of the top ten Technical Universities in Poland. The University mission is to discover and convey the truth and knowledge by performing modern scientific research, as well as to educate new generations of students and scientists. TUL focuses on creativity, openness and professionalism, which allows it to keep the status of an innovative academic and scientific centre.



Lodz is a modern dynamic city with a population of around one million. At the end of 19th century, it was one of the main centres of the textile industry in the country. It was here where the best craftsmen arrived, developing the industry by opening their factories and manufactories, which are nowadays visible in almost every corner of the city. This is the place, where one of the longest shopping streets in Europe is located (Piotrkowska Street), and this is the land of the Nobel Prize winner Władysław Reymont has written about in his novel 'Ziemia Obiecana' ('The Promised Land'), contrasting opportunities and threats of capitalism. Nowadays, almost 600 years since granting the city rights, Lodz is continuously developing and by focusing on modern technologies, innovative industries, raises the standard of living of its residents.



Conference Chairs

M. Wiercigroch, University of Aberdeen, UK
P. Perlikowski, Lodz University of Technology, Poland

Local Organising Committee

P. Perlikowski (Chair), S. Brezetskyi, B. Blazejczyk-Okolewska, P. Brzeski, D. Dudkowski, T. Kopacka, A. Stefański, J. Wojewoda (*Conference Secretary*)

Conference Symposia and Chairs

RANM 2019 conference will run four symposia on: Dynamics and Vibration, Nonlinear and Complex Physics, and Solid Mechanics and Materials, which will be organized by symposia chairs. Additionally, we will organize a special session for Young Scientists. List of symposia, their chairs and main topics are given next.

Symposium on Dynamics and Vibration

Chairs: S. Lenci (Ancona) and J. Warmański (Lublin)

- Nonlinear dynamics of engineering systems
- Structural vibration
- Dynamics of structures
- Parameter identification
- Non-smooth dynamics
- Time delay engineering systems
- Modeling and simulation of nonlinear systems
- Analytical, numerical and experimental methods
- Applications of nonlinear dynamics
- Stochastic systems
- Dynamics of nano and micro structures

Symposium on Nonlinear and Complex Physics

Chairs: J. Kurths (Berlin) and Yu. Maistrenko (Kiev)

- Synchronization
- Chaos and bifurcations
- Chimera states
- Systems with time delay
- Neuro-biological systems
- Multi-stability
- Complex networks
- Time series analysis

Symposium on Solid Mechanics and Materials

Chairs: T. Kubiak and M. Kotełko (Lodz)

- Thin-walled structures
- Buckling, dynamic buckling
- Structural impact
- Numerical methods (FEM, BEM)
- Structures made of steel and composite materials
- Seismic structural analysis
- Granular materials and composite
- Materials properties, measuring techniques
- MEMS, NANO, and smart materials and structures

Scientific Committee

Bala Balachandran (College Park)
 Soumitro Banerjee (Kolkata)
 Barbara Blazejczyk-Okolewska (Lodz)
 Miha Boltezar (Ljubljana)
 John Brindley (Leeds)
 Qingjie Cao (Harbin)
 Matthew Cartmell (Glasgow)
 Anindya Chatterjee (Kanpur)
 Guanrong Chen (Hong Kong)
 Syamal K. Dana (Kolkata)
 Emmanuel Detournay (Minneapolis)
 Zuzana Dimitrovová (Lisbon)
 Dan Dubina (Timisoara)
 Bruno Eckhardt (Marburg)
 Paulo Goncalves (Rio de Janeiro)
 Sayan Gupta (Madras)
 Takashi Hikihara (Kyoto)
 Haiyan Hu (Beijing)
 Mike Jeffrey (Bristol)
 Tomasz Kapitaniak (Lodz)
 Maria Kotelko (Lodz)
 Tomasz Kubiak (Lodz)
 Jürgen Kurths (Potsdam)
 Stefano Lenci (Ancona)
 Grzegorz Litak (Lublin)
 Caishan Liu (Beijing)
 Lifeng Ma (Xi'an)
 Yuri Maistrenko (Kiev)
 Radosław Mania (Lodz)
 Ewa Magnucka - Blandzi (Poznan)
 Szymon P. Malinowski (Warszawa)
 Emil Manoach (Sofia)
 Carlos Mazzilli (Sao Paulo)
 Yuri Mikhlin (Kharkov)
 John Mottershead (Liverpool)
 Tom Mullin (Manchester)
 Vladimir Nikora (Aberdeen)
 Wiesław Ostachowicz (Gdansk)
 Ekaterina Pavlovskaya (Aberdeen)
 Przemysław Perlikowski (Lodz)
 Awadhesh Prasad (Delhi)
 Giuseppe Rega (Rome)
 Pedro Ribeiro (Porto)
 Tomasz Sadowski (Lublin)
 Ilmar Santos (Lyngby)
 Marcelo Savi (Rio de Janeiro)

Janko Slavic (Ljubljana)
 Wiesław Staszewski (Krakow)
 Andrzej Stefanski (Lodz)
 Viorel Ungureanu (Timisoara)
 Pankaj Wahi (Kanpur)
 Jerzy Warminski (Lublin)
 Marian Wiercigroch (Aberdeen)
 Jerzy Wojewoda (Lodz)
 Ko-Choong Woo (Kuala Lumpur)
 Serhiy Yanchuk (Berlin)
 Daniil Yurchenko (Edinburgh)
 Sławomir Zolkowski (Gliwice)

Important Dates

15/09/2018 Beginning of abstract submission
 31/12/2018 Abstract submission deadline
 15/01/2019 Acceptance notifications
 15/02/2019 Early registration deadline
 10/04/2019 Registration deadline

Registration

Early Bird Registration before 15 February 2019
 Participant: EUR 390
 Student*: EUR 320
 Accompanying Person**: EUR 200
 Late Registration after 15 February 2019
 Participant: EUR 460
 Student*: EUR 380
 Accompanying Person**: EUR 250
 On-site
 Participant: EUR 560
 Student*: EUR 480
 Accompanying Person**: EUR 250

The registration fee will cover the registration pack (a book of abstracts, coffee breaks, lunches, welcome reception and conference banquet and the half-day excursion.

* Conference banquet not included, ticket can be purchased separately for EUR 60.

** The registration fee will cover get together party, the conference banquet, half-day excursion and a full day excursion with lunch.

Keynote Speakers

Dwight Barkley, University of Warwick, UK
Christof Egbers, Technische Universität Cottbus, Germany
Lukasz Jankowski, Institute of Fundamental Technological Research, Poland

Michael D. Gilchrist, University College Dublin, Ireland
Awadhesh Prasad, University of Delhi, India
Giuseppe Rega, Sapienza University of Rome, Italy
Wojciech Sumelka, Poznan University of Technology, Poland
Hiroshi Yabuno, University of Tsukuba, Japan
Serhiy Yanchuk, Technische Universität Berlin, Germany

Social Programme

Collegiate Church of St. Mary and St. Alexius in Tum and Lowicz Ethnographic Park

Publications

Conference proceedings are not planned but selected papers will be invited to be submitted to peer review journals including European Physical Journal Special Topics (IF=1.947), International Journal of Mechanical Sciences (IF=3.570), Physica D (IF=2.221) and Meccanica (IF=1.960).

Conference Venue

Lodz University of Technology Sports and Education Centre "Sports Bay"

Accommodation

There are several hotels around Lodz University of Technology. The list will be provided at the web page of the conference.

Contact

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