ENOC 2017

9TH EUROPEAN NONLINEAR DYNAMICS CONFERENCE

25-30 June, 2017

Budapest, Hungary

Department of Applied Mechanics
Budapest University of Technology
and Economics

PROGRAMME

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14.50 **ID 372**
Analysis of oscillatory motions of chromosomes during anaphase using biomechanical oscillatory model of mitotic spindle
Andjelka Hedrih[1], Katica (Stevanović) Hedrih[1,2]
[1]Mathematical Institute of Serbian Academy of Sciences and Arts, Department of Mechanics, Belgrade, Serbia
[2]Faculty of Mechanical Engineering, University of Nis, Nis, Serbia

15.10 **ID 418**
Dynamics of statically pre-loaded human aorta with residual stresses
Marco Amabili
McGill University, Mechanical Engineering, Montreal, Canada

Room 8 (KF82)

13.30 - 15.30 **MS 02 / II.**
Asymptotic Methods

Chair: Jan Awrejcewicz
Co-chair: Wim T. Van Horssen

13.30 **ID 19**
On perturbations methods and their applicability in the study of vibrations of axially moving strings and beams
Wim T. Van Horssen
Delft University of Technology, Delft Institute of Applied Mathematics, Delft, The Netherlands

13.50 **ID 99**
On the mathematical justification of viscoelastic shell models
Gonzalo Castiñeira Veiga[1], Ángel Rodríguez-Arós[2]
[1]Universidade de Santiago de Compostela, Department of Applied Mathematics, Santiago de Compostela, Spain
[2]Universidade da Coruña, Department of Mathematics, A Coruña, Spain

14.10 **ID 152**
Internal resonances of a non-linear heterogeneous rod: influence of dispersion and dissipation
Igor Andrianov[1], Vladyslav Danishevskyy[2], Bernd Markert[1], Graham Rogerson[2]
[1]RWTH Aachen University, Institute of General Mechanics, Aachen, Germany
[2]Keele University, School of Computing and Mathematics, Keele, United Kingdom

14.30 **ID 256**
On time-varying velocity for an axially moving string under viscous damping
Sajad H. Sandilo
Quaid-e-Awam University of Engineering, Science and Technology, Department of Mathematics, Nawabshah, Pakistan

14.50 **ID 428**
Small-scale counter-rotating Darrieus wind turbine
Liubov Klimina[1], Ekaterina Shalimova[1], Vitaly Samsonov[1], Ching-Huei Lin[2]
[1]Lomonosov Moscow State University, Institute of Mechanics, Moscow, Russia
[2]Chien Hsin University of Science and Technology, Electrical Engineering, Moscow, Russia

15.10 **ID 444**
Semi-analytical investigation of unsteady free-boundary flows
Evqenii Karabut[1], Aleksander Petrov[2], Elena Zhuravleva[3]
[1]Lavrentyev Institute of Hydrodinamics, Russian Academy of Sciences, Novosibirsk, Russia
[2]Institute for Problems in Mechanics, Russian Academy of Sciences, Russian Academy of Sciences, Moscow, Russia
[3]Lavrentyev Institute of Hydrodinamics, Applied Mathematics, Novosibirsk, Russia

Room 9 (KF87)

13.30 - 15.30 **MS 01 / II.**
Reduced-Order Modeling and System Identification

Chair: Michael McFarland
Co-chair: Dennis Grunert

13.30 **ID 244**
Towards the adoption of the stiffness evaluation procedure as non-intrusive, non-linear model reduction method in car crash simulations
Dennis Grunert, Jörg Fehr
University of Stuttgart, Institute of Engineering and Computational Mechanics, Stuttgart, Germany

13.50 **ID 275**
Experimental frequency response synthesis for nonlinear systems
Simon Peter[1], Maren Scheel[2], Malte Krack[2], Remco Ingmar Leine[1]
[1]University of Stuttgart, Insitute for Nonlinear Mechanics, Stuttgart, Germany
[2]University of Stuttgart, Institute of Aircraft Propulsion Systems, Stuttgart, Germany