

Recent Advances in Mechanics

September 4-9, 2016, Kolympari, Crete, Greece

Sunday, September 4, 2016

17:30-20:00 Arrival of participants

20:00 Dinner

Monday, September 5, 2016

7:30-8:30 Breakfast

9:00-10:30 Opening ceremony

10:30-11:00 Coffee break

11:00-11:30 **Tadeusz Burczyński**, A. Mrozek, W. Kuś, "Generation of new graphene-like materials"

11:30-12:00 **Reinhold Kienzler**, P. Schneider, "On displacements and stresses in a second-order consistent plate theory"

12:00-12:30 **George D. Manolis**, S.I. Parvanova, G.P. Vasilev, P.S. Dineva, "Nano-sized heterogeneities in a matrix by BEM and FEM"

12:45-14:30 Lunch

14:30-15:00 **Wojciech Sumelka** and T. Łodygowski, "On fractional mechanics concepts"

15:00-15:30 **Sotirios Natsiavas**, E. Paraskevopoulos, "On a consistent application of Newton's law to mechanical systems with motion constraints"

15:30-16:00 **Roman Bogacz**, W. Kurnik, "On kinematic and self-excited rail vehicle-track interaction"

16:00-16:30 Coffee break

16:30-17:00 **Christian R. Silbermann**, J. Ihlemann, "Simulation of confined bending of continuously dislocated crystals"

17:00-17:30 **Dragoslav Šumarac**, "Cyclic plasticity and damage of structures"

17:30-18:00 A. Liolios, G. Hatzigeorgiou, A. Moropoulou, **A. Liolios**, "Cultural heritage RC structures upgraded by ties under multiple earthquakes"

20:00 Dinner

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Tuesday, September 6, 2016

- 7:30-8:30 Breakfast
- 9:00-9:30 **John T. Katsikadelis**, "Derivation of Newton's law of motion from Kepler's laws of planetary motion"
- 9:30-10:00 **Rauter Natalie**, R. Lammering, "Second harmonic Lamb waves in unidirectional composite"
- 10:00-10:30 **Włodzimierz Kurnik**, R. Bogacz, P. Przybyłowicz, "Bigoni and Noselli experiment – is it evidence for flutter in the Ziegler column?"
- 10:30-11:00 Coffee break
- 11:00-11:30 **Stefan Hartmann**, R.R. Gilbert, "Problems in parameter identification with application to artery modeling"
- 11:30-12:00 **Jędrzej Mączak**, M. Jasiński, "Model-based detection of local defects in gears"
- 12:00-12:30 **Savvas P. Triantafyllou**, E. Kakouris "Material point methods for brittle fracture"
- 12:45-14:30 Lunch
- 14:30-15:00 **Konstantin Naumenko**, H. Altenbach "Requirements on constitutive modeling of high-temperatures materials behavior"
- 15:00-15:30 **Vlasis K. Koumoussis**, I.A. Gkimoussis, "Analysis of RC frames under severe cyclic loading using smooth plasticity and damage models"
- 15:30-16:00 **Aristotelis E. Charalampakis**, "Analytical minimum weight design of trusses using cylindrical algebraic decomposition"
- 16:00-16:30 Coffee break
- 16:30-17:00 **Stefan Kaesmair**, P. Steinmann, "Computational homogenization of diffusion problems"
- 17:00-17:30 **Konstantinos V. Spiliopoulos**, K.D. Panagiotou, "Efficient asymptotic state solutions of cyclically loaded elastoplastic structures"
- 17:30-18:00 **Zbigniew L Kowalewski**, L. Dietrich, G. Socha, "On the experimental techniques for thin sheets testing at large deformations"
- 20:00 Dinner

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September 4-9, 2016, Kolympari, Crete, Greece

Wednesday, September 7, 2016

7:30-8:30 Breakfast

9:00-17:30 Bus Excursion to Eleftherna Museum and Rethymnon city

20:00 Dinner

Thursday, September 8, 2016

7:30-8:30 Breakfast

9:00-9:30 **Wolfgang E. Weber**, D. Balzani, Y.F. Fangye, B.W. Zastrau, "Aspects of the proper orthogonal decomposition technique applied to the dynamic fibre pull-out"

9:30-10:00 **Andrzej Tylikowski**, "Dynamic stability of rotating nan shafts"

10:00-10:30 **Georgios E. Stavroulakis**, A. Sytzanakis, A. Georgellis, G.A. Drosopoulos, "Auxetic structures subjected to dynamic loads"

10:30-11:00 Coffee break

11:00-11:30 **Alexander Schwarz**, K. Steeger, M. Igelbüscher, J. Schröder, "Geometrically nonlinear mixed least-squares finite element formulations"

11:30-12:00 **Christopher G. Provatidis**, "Engineering analysis using CAS-based macroelements"

12:00-12:30 **Sebastian Korczak**, "Nonlinear behaviors of underactuated systems in the trajectory tracking task"

12:45-14:30 Lunch

14:30-15:00 **Ioannis N. Tsiptsis**, E.J. Sapountzakis, "Isogeometric methods in higher-order curved beam theories"

15:00-15:30 **Mieczyslaw Kuczma**, B. Kuczma, "Composite steel-concrete beams with partial interaction: experiment, theory simulation"

15:30-16:00 R. Bogacz, **Kurt Frischmuth**, "On optimality of column geometry"

16:00-16:30 **Thanassis Zisis**, P.A. Gourgiotis, H.G. Georgiadis "Indentation of microstructures materials"

20:00 Cretan Dinner

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Friday, September 9, 2016

7:30-8:30 Breakfast

9:00-9:30 **Aristophanes J. Yiotis**, J. Katsikadelis, "Buckling of thick plates on biparametric elastic foundation: A MAEM solution"

9:30-10:00 A. Chudzikiewicz, **Jaroslav Korzeb**, "Simulation study of wheels wear in low-floor tram with independently rotating wheels"

10:00-10:30 **Panos Tsopelas**, Th. Zisis, S. Papathanasiou, "Cellular-solid structural elements in seismic design"

10:30-11:00 Coffee break

11:00-12:00 Closure

12:45-14:30 Lunch

Departure of participants