Program

room Mossa

Monday 25/09/2023

MS "Metamaterials design oriented to applications"

9:30-10:00 Klaus Heiduschke (ETH Zürich, Switzerland)
"On stress or deformation tensor projections and the interspace of Mohr's three circles"

10:00-10:30 Fabio De Angelis (University of Naples Federico II, Italy)
"Variational formulations and computational applications in plasticity and viscoplasticity"

10:30-11:00 Erhard Buchmann (University of the Bundeswehr Munich, Germany)
"Contribution to control-structure integrated design of components featuring thermoelastic metamaterials"

11:00-11:30 Coffee break

11:30-12:00 Domenico Castello (University of Catania, Italy)
"An invariant beam finite element formulation for the analisys of deployable grid"

12:00-12:30 Sergei Khakalo (Aalto University, Finland)
"On second strain gradient elasto-plasticity"

12:30-13:00 Salvatore Sessa (University of Naples Federico II, Italy)
"A quantum computing approach for reliability computations"

13:00-14:30 Lunch

Program

room Mossa

Tuesday 26/09/2023

MS "Metamaterials design oriented to applications"

10:00-10:30 Jarkko Niiranen (Aalto University, Finland)
"On the mechanics of Miura-Ori structures for package"

10:30-11:00 Angelo Scrofani (University of L'Aquila, Italy)
"Diffusion of the aging fluid in a bidimensional homogeneous body"

11:00-11:30 Coffee break

11:30-12:00 Michele Tepedino (University of L'Aquila, Italy)
"Challenges in predictive models for orthodontic tooth movement"

12:00-12:30 Daniel George (University of Strasbourg, France)
"An approach to merge experimental/clinical tooth movement with numerical modeling"

12:30-13:00 Maximilian Stilz (University of Freiburg, Germany)
"Chirality effects in panto-cylindrical structures"

13:00-14:30 Lunch

MS "Bridging the nano-to-micro mesoscale"

15:30-16:00 Roland Pellenq (CNRS, Francia e Georgetown University, USA),
"Potential of mean force and replica MD to bridge length and time scale in modelling complex materials" (on line)

Program

room Mossa

Wednesday 27/09/2023

MS "Metamaterials design oriented to applications"

11:30-12:00 Alessandro Ciallella (University of L'Aquila, Italy)
"Perspectives in Digital Volume Correlation analysis for metamaterials with large deformations"

12:00-12:30 Francesco D'Annibale (University of L'Aquila, Italy)
"Statics and dynamics of a beam-like structure made of a chiral metamaterial"

12:30-13:00 Seyed Ehsan Alavi (LCC-CNRS Toulouse, France)
"Dynamical mechanical analysis and micromechanical simulations of SCO@ polymer composites: Toward soft actuator devices"

13:00-14:30 Lunch

MS "Peridynamics and its Applications"

15:30-16:00 Ugo Galvanetto (University of Padua, Italy)
"TBA"

16:00-16:30 Coffee break

16:30-17:00 Konstantin Naumenko (Otto-von-Guericke-University Magdeburg, Germany)
"Peridynamics analysis of damage in float glass plates"

17:00-17:30 Vito Diana (University of Genoa, Italy)
"A Peridynamic model for micropolar continua"

17:30-18:00 Jan-Timo Hesse (German Aerospace Center DLR)
"Peridynamics for modelling additive manufacturing processes"

Program

room Mossa

Thursday 28/09/2023

MS "Multiphysics metamaterials for wave propagation and vibration control"

10:00-10:30 Andrea Bergamini (Empa, Materials Science and Technology, Switzerland)
"Effect of domain interfaces in 3D chiral metamaterials"

10:30-11:00 Adrien Pelat (Le Mans Université, France)
"On the use of architected materials for the vibration mitigation of lightweight mechanical thin structures"

11:00-11:30 Coffee break

MS "Multiscale approaches and metamaterials design oriented to applications"

11:30-12:00 Daniela Addessi (Sapienza University, Italy)
"Multiscale procedures for heterogeneous damaging materials"

12:00-12:30 Olga Szlachetka (Warsaw University of Life Sciences, Poland)
"Tolerance modelling of heat conduction in multi-component functionally graded composites"