

## Monday, 27th

08:00	09:15	<b>Registration</b>
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09:15	09:30	<b>Opening</b>
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9:30	10:10	<i>DaVIDE Bigoni</i> <b>Designing solids from structures</b> <span style="float: right; font-size: small;">keynote lecture</span>
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10:10	10:40	<b>Coffee break</b>
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<b>Session 1</b>		Chair: <i>Jean Francois Deü</i>
10:40	11:00	<i>L. Kovacic, Z. Kanovic, V. Rajs, L. Teofanov</i> Design and properties of metastructures for vibration isolation purposes
11:00	11:20	<i>M. Collet, A. Pyskir, Z. Dimitrijevic, C.-H. Lamarque</i> Prestressed nonlinear resonant auxetic metamaterial for dynamic isolation
11:20	11:40	<i>J. Zeman</i> Modular-topology optimization of compliant structures and mechanisms
11:40	12:00	<i>S. Kumar</i> Unifying the design space of metamaterials by deep generative modeling
12:00	12:20	<i>D. Ilisar, D. M. Kochmann</i> Configuration dependent properties of straw-based truss metamaterials
12:20	12:40	<i>G. Iarriccia, M. Molaie, A. Zippo, V. Cannillo, F. Pellicano</i> Composite metamaterials for aerospace structures

12:40	14:00	<b>Lunch</b>
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<b>Session 2</b>		Chair: <i>Pedro Ribeiro</i>
14:00	14:20	<i>L. Latalski, J. Dubicka-Nowak</i> Nonlinear dynamics of an active shallow arch
14:20	14:40	<i>M. Shojaei, O. Weeger</i> Multiscale modeling of metamaterial beams using a micromorphic beam theory
14:40	15:00	<i>L. Mesny, R. Alcaro, S. Chesné, S. Bogaert</i> Real-time adaptation of a hybrid nonlinear energy sink: simulation and experimental validation
15:00	15:20	<i>E. Gourdon, M. Morell, E. De Bono, M. Collet, A. Ture Savadkoobi, C.-H. Lamarque</i> Digitally programmed nonlinear electroacoustic resonators

15:20	15:50	<b>Coffee break</b>
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<b>Session 3</b>		Chair: <i>Varvara Kouznetsova</i>
15:50	16:10	<i>G. James</i> Traveling localized waves in granular metamaterials
16:10	16:30	<i>C. Bellis, B. Lombard, M. Touboul, R. Assier</i> Effective dynamics for low-amplitude transient elastic waves in a 1D periodic array of non-linear interfaces
16:30	16:50	<i>A. Barbosa, N. Kacem, N. Bouhaddi</i> Nonlinear metastructure design for energy localization: a solitonic approach
16:50	17:10	<i>Y. Starosvetsky</i> Analysis of the response of damped and parametrically driven, strongly anharmonic Klein-Gordon chains

## Tuesday, 28th

9:30	10:10	<i>Varvara Kouznetsova</i> <b>Subharmonic energy exchange in non-linear locally resonant metamaterials</b> <span style="float: right; font-size: small;">keynote lecture</span>
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10:10	10:40	<b>Coffee break</b>
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<b>Session 4</b>		Chair: <i>Ivana Kovacic</i>
10:40	11:00	<i>L. Warminski, L. Kloda, D. Melnyk, A. Mitura, J. Latalski</i> Nonlinear vibrations of a multistable piezoelectric shell
11:00	11:20	<i>J.-F. Deü</i> Nonlinear vibration modeling and analysis of thin structures with piezoelectric transducers for sensing, actuation, and passive shunt damping
11:20	11:40	<i>A.B. Faragau, A. Tsetas, A.V. Metrikine, A. Tsouvalas</i> Noise and vibration suppression in vibratory pile driving using locally resonant metamaterials
11:40	12:00	<i>A. Casalotti, M. Ferretti, A. Luongo, D. Zulli</i> A beam-like model for the buckling and post-buckling analysis of a thin pipe
12:00	12:20	<i>T. Feehilly, R. H.J. Peerlings, M. G.D. Geers, D. Bokoš</i> Magnetically controlled microstructural buckling of mechanical metamaterials
12:20	12:40	<i>E. De Bono, M. Morell, M. Collet, E. Gourdon, A. Ture Savadkoobi, C.-H. Lamarque</i> Toward digitally programmed meta-systems with enforced nonlinear responses: an example in electro-acoustics

12:40	14:00	<b>Lunch</b>
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<b>Session 5</b>		Chair: <i>Jan Zeman</i>
14:00	14:20	<i>P. Biscari</i> Unified elasto-plasticity theory for crystalline hyperelastic solids
14:20	14:40	<i>L. Jovanova</i> Metastructures designed for impact loading
14:40	15:00	<i>N. Karathanasopoulos, A. Singh, O. Al-Ketan</i> Strain-rate dynamic performance of architected polymer-based composite materials: experimental, numerical and machine learning insights
15:00	15:20	<i>H.C.V.M.S. Veluvail, J.-I. Heins, J. Kraeima, M. Witjes, N. Grigor, P.R. Onck, A.O. Krushynska</i> Metamaterial mandibular implants for reduced stress shielding and bone resorption

15:20	15:30	<b>Common photo</b>
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18:00	19:30	<b>Visit to Fourvière</b>
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19:30	-	<b>Banquet</b>
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## Wednesday, 29th

9:30	10:10	<i>Pedro Ribeiro</i> <b>Using curvilinear fibres to enhance the dynamic response of composite panels</b> <span style="float: right; font-size: small;">keynote lecture</span>
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10:10	10:40	<b>Coffee break</b>
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<b>Session 6</b>		Chair: <i>Jerzy Warmiński</i>
10:40	11:00	<i>L. Daghi, M. Haddad, D.A. Hun</i> Multiscale modeling of polymer solids and structures additively manufactured with selective laser sintering
11:00	11:20	<i>G. Baeza, J. Chevalier, S. Meille</i> Fabrication and properties of non-linear multi-materials
11:20	11:40	<i>A. Mitura, J. Warminski</i> Energy recovery from bistable shell vibrations using MFC patch
11:40	12:00	<i>C. Lesenne, D. Audigier, P.-J. Cottinet, M. Q. Le Cottinet, J.-F. Capsal</i> Fully printable plasticized fluorinated terpolymers for active mirror morphing control
12:00	12:20	<i>F. Bentata, C. Laprais, L. Berquiga, N. Baboux, P. Genevet, G. Saint-Girons, X. Letartre, S. Cueff</i> Programmable multilevel nanophotonics with phase-change materials

12:40	14:00	<b>Lunch</b>
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