

DENORMS CA15125 Meeting at *Università degli studi Roma Tre* (Rome, Italy), 23rd-26th January 2017

Venue: *Building "ex Vasca Navale", Department of Engineering, Università degli studi Roma Tre, via Vito Volterra 62, Rome, Italy*

General Timetable

	08:00-09:30	09:30-12:30	12:30-	13:30-17:00	17:00-18:30	Social activities	
DENORMS Action management meetings							
Monday 23rd		<p><i>9:00-12:30</i> Management Committee meeting * <i>* Restricted to MC members</i> Multimedia Room, 3rd floor</p>	<p><i>12:30-13:30</i> Lunch break</p>	<p><i>13:30-16:30</i> Parallel Working Group meetings WG1 Conference Room, ground floor WG2 Multimedia Room, 3rd floor WG3 Workshops Room, ground floor</p>	<p><i>16:30-17:00</i> Coffee break</p> <p><i>17:00-18:30</i> Speed dating with industrial partners Conference Room, ground ..</p>	<p><i>19:30</i> Visit of St. Paul's Basilica</p> <p><i>20:00</i> Dinner at <i>Il Biondo Tevere</i> Via Ostiense 178</p>	
Workshop on Modelling of high performance acoustic structures: porous media, metamaterials and sonic crystals							
Tuesday 24th	<p><i>8:15-8:30</i> Opening ceremony</p>	<p style="text-align: center;">New trends in traditional noise treatments</p> <p><i>8:30-9:15</i> <i>9:30-10:30</i> <i>10:30-11:00</i> <i>11:00-12:00</i> Plenary lecture Presentations Coffee break Presentations Keith Attenborough, the Open university</p>		<p><i>12:00-13:30</i> Lunch break</p>	<p style="text-align: center;">Acoustic metamaterials, metasurfaces and sonic crystals</p> <p><i>13:30-14:15</i> <i>14:30-15:30</i> <i>15:30-15:50</i> <i>15:50-16:50</i> <i>17:00-17:30</i> Plenary lecture Presentations Coffee break Presentations Round table Noé Jiménez Gonzalez, LAUM CNRS UMR6613</p>		<p><i>20:00</i> Dinner at <i>Geco</i> Piazza Guglielmo Marconi 23</p>
25th		<p style="text-align: center;">New trends in vibroacoustics</p> <p><i>8:30-9:15</i> <i>9:30-10:30</i> <i>10:30-11:00</i> <i>11:00-12:20</i> Plenary lecture Presentations Coffee break Presentations Richard Craster, Imperial College</p>		<p><i>12:20-13:30</i> Lunch break</p>	<p style="text-align: center;">Use of metamaterials in other fields of physics</p> <p><i>13:30-14:15</i> <i>14:30-15:30</i> <i>15:30-15:50</i> <i>15:50-16:30</i> <i>16:40-17:10</i> <i>17:10-17:30</i> Plenary lecture Presentations Coffee break Presentations Round table Alessandro Toscano, Univ. Roma Tre</p>		<p><i>18:30-21:00</i> Shopping&dinner at <i>Eataly</i> Piazzale XII ottobre 1492</p>

Workshop “Modelling of high performance acoustic structures: porous media, metamaterials and sonic crystals”, 24-25th January 2017

Workshop Agenda

Day	Local time	Session	Location
Tuesday 24th January	08:15 – 08:30	Opening Ceremony	Conference Room, ground floor
	08:30 – 09:15	Plenary lecture: Prof. Keith Attenborough (The Open University, UK) <i>Waves in porous materials</i>	
	New trends in traditional noise treatments - porous materials and microperforated plates. Chair: Olga Umnova		
	09:30 – 09:50	Nicolas Dauchez (Université de Technologie de Compiègne, France) <i>Sound absorption of a poroelastic cuboid network</i>	
	09:50 – 10:10	Rodolfo Venegas (ENTPE, France) <i>Enhancing sound attenuation in multiscale porous materials via diffusion processes</i>	
	10:10 – 10:30	Fabien Chevillotte (Matelys - Research Lab, France) <i>From the microstructure to condensed equivalent fluid models</i>	
	10:30 – 11:00	<i>Coffee break</i>	
	11:00 – 11:20	Hugo Karpinski (University of Salford, UK) <i>Acoustical properties of nanoporous activated carbon felts</i>	
	11:20 – 11:40	Tomasz Zielinski (Institute of Fundamental Technological Research of the Polish Academy of Sciences, Poland) <i>Sound absorption of plates with micro-slits backed with an air cavity: analytical estimations, numerical modelling and measurements</i>	
	11:40 – 12:00	Mathieu Gaborit (KTH Royal Institute of Technology, Sweden) <i>Coupling of Bloch waves and Finite-Element models: case of metaporous sandwich structures</i>	
	12:00 – 13:30	<i>Lunch</i>	Conference Room, ground floor
	13:30 – 14:15	Plenary lecture: Dr. Noé Jiménez (Laboratoire d'Acoustique de l'Université du Maine, UMR 6613 CNRS, France) <i>Subwavelength absorbers and metasurfaces</i>	
	Acoustic metamaterials, metasurfaces and sonic crystals for audible sound manipulation. Chair: Jean-Philippe Groby		
	14:30 – 14:50	Joong Seok Lee (Chungnam National University, South Korea) <i>Broadband sound absorption using multiple slow waves in metaporous layers</i>	
	14:50 – 15:10	Ashwin Sridhar (Eindhoven University of Technology, The Netherlands) <i>A multiscale semi-analytical approach towards plane wave analysis of local resonance metamaterials</i>	
	15:10 – 15:30	Neha Sharma (University of Salford, UK) <i>A Low Frequency Muffler based on the Acoustic Black Hole Effect</i>	
	15:30 – 15:50	<i>Coffee break</i>	
	15:50 – 16:10	Milan Cervenka (Czech Technical University in Prague, Czech Republic) <i>Acoustic bandpass filters employing shaped resonators</i>	
	16:10 – 16:30	Bart Van Damme (Empa, Switzerland) <i>Theoretical and experimental investigation of bending waves in beams with a periodic structure</i>	
	16:30 – 16:50	Logan Schwan (Laboratoire d'Acoustique de l'Université du Maine, UMR 6613 CNRS, France) <i>Theory and experiments on surface acoustic waves at a lossy metasurface: complex dispersion relation and surface slow sound</i>	
17:00 – 17:30	Round table: summary and discussion of the presented topics and possible future developments within the WG1 Chaired by Olga Umnova and Jean-Philippe Groby		
20:00	Social event: Dinner at "Geco", Piazza Guglielmo Marconi 23, Rome http://www.ristorantegeco.it/ (cost: 25 €)		

Day	Local time	Session	Location
Wednesday 25th January	08:30 – 09:15	Plenary lecture: Prof. Richard Craster (Imperial College London, UK) <i>Seismic Metamaterials</i>	Conference Room, ground floor
	New trends in vibroacoustics - elastic metamaterials and metasurfaces. Chair: Anton Krynkin		
	09:30 – 09:50	Lucas Pomot (Aix Marseille University, France) <i>Combining transformation physics and homogenization for designs of seismic cloaks</i>	
	09:50 – 10:10	Aleksey Pichugin (Brunel University London, UK) <i>Asymptotic modelling of the Rayleigh-Bloch waves travelling along a periodically-perturbed elastic surface</i>	
	10:10 – 10:30	Ioannis Antoniadis (National technical University of Athens, Greece) <i>Towards the design of highly dissipative low-frequency metamaterials: the k-damping concept</i>	
	10:30 – 11:00	<i>Coffee break</i>	
	11:00 – 11:20	Claude Boutin (ENTPE /CNRS Université de Lyon, France) <i>On the nonconventional vibro-acoustic behaviour of highly contrasted plates</i>	
	11:20 – 11:40	Anastasiia Krushynska (University of Turin, Italy) <i>Spider web-inspired acoustic metamaterials for sound manipulation</i>	
	11:40 – 12:00	Lucas Van Belle (KU Leuven, Belgium) <i>Modelling, analysis and experimental validation of vibroacoustic locally resonant metamaterials including damping</i>	
	12:00 – 12:20	Sakdirat Kaewunruen (University of Birmingham, UK) <i>Engineered crumbed rubber concrete for vibroacoustic reduction in railway built environment</i>	
	12:20 - 13:30	<i>Lunch</i>	
	13:30 – 14:15	Plenary lecture: Prof. Alessandro Toscano ("Roma Tre" University, Italy) <i>Numerical modelling of metamaterials: electromagnetic and acoustic applications</i>	Conference Room, ground floor
	Use of metamaterials in other fields of physics and metamaterials exposed to multiple physical phenomena. Chair: Tomasz Zielinski		
	14:30 – 14:50	Stefano Vellucci ("Roma Tre" University, Italy) <i>Cloaking and magnet-less non-reciprocity through metamaterials</i>	
	14:50 – 15:10	Camille Gaulon (University Paris Diderot, France) <i>Acoustic properties and dissipation in liquid foams</i>	
	15:10 – 15:30	Tao Yang (Technical University of Liberec, Czech Republic) <i>Relationship between sound absorption property and transmission behaviour of Struto nonwoven</i>	
	15:30 – 15:50	<i>Coffee break</i>	
	15:50 – 16:10	Jiangyi Zhang (Laboratoire d'Acoustique de l'Université du Maine, UMR 6613 CNRS, France) <i>Nonlinear Membrane-Type Acoustic Metamaterials: Harmonic generation and solitons</i>	
	16:10 – 16:30	Livija Cveticanin (University of Novi Sad, Serbia) <i>Negative effective mass in the mass-in-mass subsystem with cubic nonlinearity</i>	
	16:40 – 17:10	Round table: summary and discussion of the presented topics and possible future developments within the WG1 Chaired by Anton Krynkin and Tomasz Zielinski	
17:10 – 17:30	Closing ceremony and award for best paper		
All sessions closed			
18:30 – 20:30	Social event: shopping and dinner at "Eataly", Piazzale XII ottobre 1492, Rome http://www.eataly.net/it_it/negozi/roma/		