

**Dynamic Response of Periodic Materials and Structures**

**April 3-4, 2014, Atlanta, Georgia, USA**

**Symposium Agenda for 3 April 2014 in Conference Room A**

<b>Time</b>	<b>Speaker</b>	<b>Title</b>
7.30 – 8.45		Breakfast & Registration
8.45 – 9.00	Organizers	Welcome and introductory remarks
<b>Wave Propagation</b>		
9.00 – 9.30	A.N. Norris	Dynamics of pentamode structures using beam theory
9.30 – 10.00	M. Ruzzene	Wave propagation in geometrically reconfigurable magneto-elastic meta-structures
10.00 – 10.30	A.S. Phani	Tailoring bandgaps and vibroacoustic response of periodic materials
<b>10.30 – 11.00</b>		
<b>Coffee</b>		
11.00 – 11.30	N. X. Fang	Quest for flexible acoustic circuitry with acousto-elastic metamaterials
11.30 – 12.00	S. Gonella	Packet modulation and mode hopping in nonlinear periodic structures
12.00 – 12.30	N. Boechler	Microscale granular acoustic metamaterials

**12.30 – 1.30**

**Lunch**

**Phonon & Thermal Transport**

1.30 – 2.00	A.J. McGaughey	Phonon transport in periodic materials with feature sizes of 1 nm to 1 $\mu$ m
2.00 – 2.30	I. El-Kady	Thermal transport in micro-scale phononic crystals: observation of coherent phonon scattering at room temperature and its implications to thermoelectrics
2.30 – 3.00	M.I. Hussein	Nanophononic metamaterial: slowing down heat transfer by mechanical vibrations
<b>3.00 – 3.30</b>		
<b>Coffee</b>		
3.30 – 4.00	P. Deymier	Phononic crystals supporting Fermion-like rotational modes
4.00 – 4.30	M.J. Leamy	Amplitude-dependent wave devices based on nonlinear periodic materials
4.30 – 5.00	M. Maldovan	Phonon heat management by periodic materials: how to treat heat like sound

**5.00 – 6.30**

**Poster Session**

**7.00 pm**

**Dinner in Conference Room 2**

## Symposium Agenda for 4 April 2014 in Conference Room A

Time	Speaker	Title
7.00 – 8.30		Breakfast
		<b>Multifunctional Applications</b>
8.30 – 9.00	T. Schaedler	Hollow microlattices: energy absorption and damping performance
9.00 – 9.30	L. Valdevit	Optimal design of stiff and lossy multiphase cellular materials
9.30 – 10.00	C. Steeves	Hybrid polymer-nanometal lattices
10.00 – 10.30	D. Pasini	Multiobjective optimization of a graded lattice for hip replacement: integration of manufacturing and bone growth requirements
		<b>10.30 – 11.00</b>
		<b>Coffee</b>
11.00 – 11.30	K. Bertoldi	Harnessing geometric and material nonlinearities to design tunable phononic crystals and acoustic metamaterials
11.30 – 12.00	A. Baz	Active acoustic and structural metamaterials
12.00 – 12.30	G. Huang	Coupled vibroacoustic modelling of membrane-type metamaterials
		<b>12.30 – 1.30</b>
		<b>Lunch</b>
		<b>1.30 – 2.30</b>
		<b>Panel discussion and concluding remarks</b>

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