

Technical Program

TRACK 16

380B 1:15pm–2:45pm

Session Chair: **Jinkyu Yang**, *University of Washington, Seattle, WA, United States*

Session Co-Chair: **Mahmoud Hussein**, *University of Colorado Boulder, Boulder, CO, United States*

1:15pm

Elastic Wave Propagation Parallel to 1D Phononic Crystal Ridges
Technical Presentation. IMECE2015-52943

Bahram Djafari Rouhani, *IEMN UMR CNRS, Villeneuve D'Ascq, France*, **Abdellatif Gueddida**, *IEMN, Lille, France*, **Elena Alonso-Redondo**, *Max Planck Institute for Polymer Research, Mainz, Germany*, **Yan Pennec**, *Institut D'Electronique, de Microélectronique, Lille, France*, **El Houssaine El Boudouti**, *Université Mohamed I, Oujda, Morocco*, **Shu Yang**, *University of Pennsylvania, Philadelphia, PA, United States*, **George Fytas**, *Max Planck Institute for Polymer Research, Mainz, Germany*

1:33pm

Bandgap Formation and Interaction in Multiresonator Sandwich Beams
Technical Presentation. IMECE2015-50943

Bhisham Sharma, **Chin-Teh Sun**, *Purdue University, West Lafayette, IN, United States*

1:51pm

Band Gap in Unusually Low Frequency Range for Flexural Waves on Thin Plate
Technical Presentation. IMECE2015-53741

Liang-Wu Cai, *Kansas State University, Manhattan, KS, United States*, **Stephen Hambric**, *Pennsylvania State University, Charleston, SC, United States*

2:09pm

Resonant Regimes and Active Cloaking of Inclusions for Membrane and Elastic Flexural Waves
Technical Presentation. IMECE2015-53005

Jane O'Neill, **Özgür Selsil**, *University of Liverpool, Liverpool, United Kingdom*, **Ross McPhedran**, *University of Sydney, Sydney, Australia*, **Alexander Movchan**, **Natalia Movchan**, **Cordelia Henderson Moggach**, *University of Liverpool, Liverpool, United Kingdom*

2:27pm

Tuning the Dispersion of Microsphere-Based Metamaterials
Technical Presentation. IMECE2015-52451

Amey Khanolkar, **Nicholas Boechler**, *University of Washington, Seattle, WA, United States*

16-1

GENERAL NOISE AND VIBRATION CONTROL

16-1-1

GENERAL NOISE AND VIBRATION CONTROL

372C 3:30pm–5:00pm

Session Chair: **Liang-Wu Cai**, *Kansas State University, Manhattan, KS, United States*

Session Co-Chair: **Sue Sung**, *Consulting, Troy, MI, United States*

3:30pm

Combustion-Driven Oscillation Mitigation in Large Industrial Combustors
Technical Paper Publication. IMECE2015-53339

Reza Kashani, *University of Dayton, Dayton, OH, United States*

3:48pm

Modification of Doublet Modes in a Circular Disc Constrained by Cyclic Symmetric Features
Technical Paper Publication. IMECE2015-51303

Sung-Han Tsai, **Jen-Yuan (James) Chang**, *National Tsing Hua University, Hsinchu, Taiwan*

4:06pm

Vibration Signal Processing of Spindle under Non-uniform Preload Based on Wavelet Analysis
Technical Paper Publication. IMECE2015-51547

Yan Fei Zhang, **Sun'an Wang**, **Xiao Hu Li**, **Guanghui Liu**, *Jiaotong University, Xi'an, China*

4:24pm

Optimal Position for Multiple Piezoelectric Actuators on Beams
Technical Paper Publication. IMECE2015-53321

Bolei Deng, **Hua Li**, **Hornsen (HS) Tzou**, *Zhejiang University, Hangzhou, China*

4:42pm

Development of an Electromagnetic Active Engine Mount
Technical Paper Publication. IMECE2015-53511

Nader Vahdati, *The Petroleum Institute, Abu Dhabi, United Arab Emir.*, **So-mayeh Heidari**, *ABB Australia Pty. Ltd., Sydney, NSW, Australia*

16-2

PHONONIC CRYSTALS AND METAMATERIALS

16-2-3

LARGE DEFORMATIONS, INSTABILITIES, AND ACTUATION

372D 3:30pm–5:00pm

Session Chair: **Liang-Wu Cai**, *Kansas State University, Manhattan, KS, United States*

Session Co-Chair: **Mahmoud Hussein**, *University of Colorado Boulder, Boulder, CO, United States*

3:30pm

Nonlinear Waves in Phononic Lattices and Superlattices
Technical Presentation. IMECE2015-51823

Victor Sanchez-Morcillo, **Noe Jimenez**, **Ahmed Mehrem**, **Ruben Pico**, *Universitat Politècnica de Valencia, Gandia, Spain*, **Luis M. Garcia-Raffi**, *Universitat Politècnica de Valencia, Valencia, Spain*

3:48pm

Effects of Nonlinearity in Elastodynamic Metamaterials
Technical Presentation. IMECE2015-53712

Arnab Banerjee, **Emilio P. Calius**, *Callaghan Innovation, Auckland, Auckland, New Zealand*, **Raj Das**, *University of Auckland, Auckland, New Zealand*