



Short Bio: Mahmoud I. Hussein is an Associate Professor and an H. Joseph Smead Faculty Fellow in the Department of Aerospace Engineering Sciences at the University of Colorado Boulder. His research focuses on the dynamics of materials and structures, especially phononic crystals and locally resonant phononic metamaterials, at both the continuum and atomistic scales. His approach to phononics is rather broad ranging from vibrations of aerospace structures to lattice dynamics and thermal transport in silicon-based nanostructured materials. His studies are concerned with physical phenomena governing these systems, relevant theoretical and computational treatments, and analysis of the effects of dispersion, resonance, dissipation and nonlinearity. Recently he has also been conducting experiments to support the theoretical work. Among his honors is the 1st Prize Award at the

Student Paper Competition at the annual meeting of the Society of Engineering Science in 2003, and the Robert J. Melosh Medal for Best Student Paper on Finite Element Analysis in 2005. In 2011, he was awarded a DARPA Young Faculty Award which aims “to identify and engage rising research stars in junior faculty positions at U.S. academic institutions”. In 2013, he was awarded an NSF CAREER award from the Mechanics of Materials program at the foundation. This year he received the Outstanding Young Faculty Award from the Department of Aerospace Engineering Sciences at CU-Boulder. Dr. Hussein has served as guest editor for three special journal issues on phononic materials and structures. He has authored or co-authored 3 book chapters and over 70 papers in archival journals and peer-reviewed conference proceedings, and since 2006 has co-chaired over 15 symposia on “phononic crystals and acoustic metamaterials” at ASME and/or USNCM conferences. He co-chaired *Phononics 2011* (Santa Fe, New Mexico, May 29-June 2, 2011; www.phononics2011.org) and *Phononics 2013* (Sharm El-Sheikh, Egypt, June 2-7, 2013; www.phononics2013.org). The *Phononics 20xx* conference series is the world’s premier event in the emerging field of phononics.

Education

THE AMERICAN UNIVERSITY IN CAIRO, EGYPT

BS Mechanical Engineering 1994

IMPERIAL COLLEGE, UNIVERSITY OF LONDON, UK

MSc Mechanical Engineering 1995

UNIVERSITY OF MICHIGAN-ANN ARBOR, USA

MSE Applied Mechanics 1999

MS Mathematics 2002

PhD Mechanical Engineering 2004

Training and Employment

UNIVERSITY OF MICHIGAN-ANN ARBOR, USA

Jan. 2004–July 2005

Post-Doctoral Researcher

Department of Mechanical Engineering

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Aug. 2005–July 2007

Post-Doctoral Research Associate

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Aug. 2007–July 2014

Assistant Professor

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