

ZOUJUN DAI

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EDUCATION

University of Illinois at Chicago	Ph.D. 2012 Mechanical Engineering
Shanghai Jiao Tong University	B.S. 2006 Mechanical Engineering

RESEARCH AREA

Acoustics and vibration with biomedical applications, lung acoustics

RESEARCH EXPERIENCE

Jan 2013-present	Postdoctoral Research Associate, Acoustics & Vibration Lab, UIC
Aug 2007-Dec 2012	Research Assistant, Acoustics & Vibration Lab, UIC

PUBLICATIONS

Archival Journal

(1) Peng Y, Dai Z, Mansy HA, Sandler RH, Royston TJ, Modeling percussive sound transmission through the torso and lungs, *Medical & Biological Engineering & Computing* – submitted 2013 (under review).

(2) Dai Z, Peng Y, Royston TJ, Mansy HA, Sandler RH, Poroviscoelastic models for sound and vibration in the lungs, accepted for publication in *ASME J. of Vibration and Acoustic* 2013.

(3) Royston TJ, Dai Z, Chaunsali R, Liu Y, Peng Y, Magin RL, Estimating material viscoelastic properties based on surface wave measurements: A comparison of techniques and modeling assumptions, *Journal of the Acoustical Society of America* **130** (6), 4126 – 4138 (2011).

Conference papers & presentations

(1) Peng Y, Dai Z, Royston TJ, Mansy HA, Sandler RH, Chest response to vibratory excitation: advances beyond percussion, *ASME IMECE* (Nov. 9 - 15, 2012, Houston, TX).

(2) Peng Y, Dai Z, Mansy HA, Royston TJ, Poroviscoelastic modeling of mechanical wave motion in the lungs, *ASME Summer Bioengineering Conference* (Jun. 20 – 23, 2012, Fajardo, Puerto Rico).

(3) Royston TJ, Dai Z, Peng Y, Mansy HA, Fractional poroviscoelastic modeling of sound and vibration in the lungs, *4th International Conference on Porous Media & Annual Meeting of the International Society for Porous Media* (May 14 – 16, 2012, West Lafayette, IN).

(4) Dai Z, Peng Y, Mansy HA, Royston TJ, Sandler RH, Estimation of local viscoelasticity of lungs based on surface waves, *ASME IMECE* (Nov. 11 - 17, 2011, Denver, CO).

(5) Dai Z, Peng Y, Royston TJ, Array measurement and imaging of sound transmission through the

lungs, *159th Meeting of the Acoustical Society of America* (Apr. 19 – 23, 2010, Baltimore, MD)

(6) Royston TJ, Dai Z, Mazzucco M, The Audible Human Project: Modeling Subject-Specific Sound Transmission in the Lungs and Torso, *ASME IMECE* (Oct. 31 – Nov. 6, 2008, Boston, MA)

(7) Dai Z, Royston TJ, Development and evaluation of computational and mechanical phantom models of lung and chest acoustics, *First International Symposium on Audible Acoustics in Medicine and Physiology* (Sept. 8 – 9, 2008, West Lafayette, IN)

Honors and Awards

The Provost's Award for Graduate Research
Excellent Academic Scholarship (first-class)
Excellent Academic Scholarship (second-class)

Fall 2008 UIC Graduate College
SJTU 2003-2004 academic year
SJTU 2004-2005 academic year

Professional Affiliations

Student Member - Acoustical Society of America

Student Member - American Society of Mechanical Engineers