JIAN ZHAI

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Department of Computational and Applied Mathematics, Rice University

6100 Main Street, Houston, TX, 77005-1892

EDUCATION

Rice University   Aug. 2015 - Present
Ph.D. Candidate in Computational and Applied Mathematics
Advisor: Prof. Maarten V. de Hoop

Purdue University   Aug. 2013 - Aug. 2015
Ph.D. Student in Mathematics
Advisor: Prof. Maarten V. de Hoop

Fudan University   Jun. 2013
M. S. in Mathematics
Advisors: Prof. Jin Cheng, Prof. Shuai Lu

Sichuan University   Jun. 2010
B. S. in Mathematics

RESEARCH INTERESTS

- Inverse Problems, Ill-posed Problems

- Partial Differential Equations

- Integral Geometry

- Scientific Computing

PUBLICATIONS

- (with E. Beretta, M. V. de Hoop, E. Francini and S. Vessella) Uniqueness and Lipschitz stability of an inverse boundary value problem for time-harmonic elastic waves, *Inverse Problems*, **33** (2017) 035013.

- (with M. V. de Hoop and G. Nakamura) Reconstruction of Lamé moduli and density at the boundary enabling directional elastic wavefield decomposition, *SIAM J. Appl. Math.*, **77** (2017) 520-536.

- (with M. V. de Hoop, A. Iantchenko, G. Nakamura) Semiclassical analysis of elastic surface waves, *preprint*, arXiv:1709.06521.

- (with M. V. de Hoop and G. Nakamura) Uniqueness of piecewise analytic density and anisotropic elastic tensors from boundary measurements, *preprint*.

AWARDS

- **Alan Weiser Memorial Travel Awards**, Rice University, CAAM   May 2017

PRESENTATIONS

- Colloquium, Zhejiang University, Hangzhou, China   Jun. 2017

- Contributed Talk, Applied Inverse Problem conference, Hangzhou, China   Jun. 2017
- Graduate Seminar, Rice University, Houston, TX, USA   Feb. 2017
- IAS Workshop on Inverse Problems, Imaging and PDEs, HKUST, Hong Kong, China   Dec. 2016
- Colloquium, Fudan University, Shanghai, China   May 2016
- GMIG Project Review and Advisory Board Meeting, Houston, TX, USA   Apr. 2016
- Graduate Seminar, Rice University, Houston, TX, USA   Nov. 2015
- GMIG Project Review and Advisory Board Meeting, Chicago, IL, USA   Apr. 2015
- GMIG Project Review and Advisory Board Meeting, Chicago, IL, USA   Apr. 2014

TEACHING

- Numerical analysis I (CAAM 453), Teaching Assistant, Rice University, Fall 2017.

PROGRAMMING SKILLS

Matlab, C/C++