

JUE WANG

Department of Mathematics
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Research Interests

Fluid Dynamics and Turbulence
Numerical Computation
Medical Image Processing

Education

Ph.D. in Mathematics, University of Wisconsin-Madison Aug 2007
Specialization in Applied Mathematics, Minor: Computer Science
Advisor: Fabian Waleffe
Thesis: *On Lower Branch Exact Coherent Structures in Turbulent Shear Flows*
B.S. in Mathematics, Peking University, Beijing, China May 2001

Employment

Visiting Assistant Professor, Union College Sep 2007 – present
Graduate Teaching Assistant, University of Wisconsin-Madison Sep 2001 – May 2007
Graduate Research Assistant, University of Wisconsin-Madison Summers 2003 – 2006

Grants and Proposals

Artifact-Free Reconstruction of Medical Imaging Information, Principal Investigator, submitted to the National Institutes of Health (NIH), Funding Opportunity: PA-06-042, October 2009, assigned to National Institute of Biomedical Imaging and Bioengineering (NIBIB) (primary), National Cancer Institute (NCI).

Publications

J. WANG AND F. WALEFFE, The asymptotic eigenvalues of first-order spectral differentiation matrices, in preparation, to be submitted to *SIAM J. Numer. Anal.*
Y. YU AND **J. WANG**, Backscatter-contour-attenuation joint estimation model for attenuation compensation in ultrasound imagery, submitted to *IEEE Trans. on Image Processing*, May 2009, revised October 2009.
J. WANG, J. GIBSON AND F. WALEFFE, Lower branch coherent states in shear flows: transition and control, *Phys. Rev. Lett.*, 98:204501, 2007.
F. WALEFFE AND **J. WANG**, Transition threshold and the self-sustaining process, *IUTAM Symposium on Laminar-Turbulent Transition and Finite Amplitude Solutions*, Springer, 85–106, 2005.

Honors and Awards

First Place Poster Prize in SIAM Conference on Applications of Dynamical Systems	2007
AWM Travel Award to SIAM Conference on Applications of Dynamical Systems	2007
Excellence in Teaching Award , University of Wisconsin-Madison	2006
Letters and Sciences Teaching Fellow , University of Wisconsin-Madison	2004
Elizabeth Hirschfelder Fund Scholarship , University of Wisconsin-Madison	2003
Superior Teaching Assistant , University of Wisconsin-Madison	2001 – 2005
2nd Place Award in the Mathematical Contest in Modeling (MCM), China	1999
Jiuzhang Mathematical Scholarship , Peking University, China	1998

Professional Activities

- Research Seminar Organizer**, Department of Mathematics, Union College, 2009 – 2010.
- Student Seminar Organizer**, Department of Mathematics, Union College, 2008 – 2009.
- Organizing Committee and Session Chair**, Hudson River Undergraduate Mathematics Conference XVI, April 18, 2009.
- Thesis Advisor**, Department of Mathematics, Union College, 2008 – present.
- Advisor, the Mathematical Contest in Modeling (MCM)**, Union College, 2007 – present.
Meritorious Award, 2009.
Meritorious Award, 2008.
- Graduate School Advisor**, Department of Mathematics, Union College, 2007 – 2009.
- Freshmen Advising**, Union College, 2007 – present.

Teaching Experience (Union)

AP Calculus (Math 113)	Fall 2007, Fall 2008
Differential Vector Calculus and Matrix Theory (Math 115)	Winter 2008, Winter, Fall 2009
Integral Vector Calculus (Math 117)	Spring 2008
Ordinary Differential Equations (Math 130)	Spring 2008, Winter 2009, 2010
Methods of Applied Mathematics 1 (Math 138)	Fall 2008
Differential Equations (Math 234)	Spring 2009
Linear Algebra (Math 340)	Winter 2010
Independent Study (Math 490)	Winter, Fall 2009, Winter 2010