Jincheng Yang

Contact Information

Department of Mathematics
College of Natural Science
The University of Texas at Austin
Austin, TX 78712 USA

Voice: (+1) 512-317-7231
E-mail: jcyang@math.utexas.edu
LinkedIn: linkedin.com/in/jincheng-yang/
Website: https://www.ma.utexas.edu/users/jcyang/

Research Interests

Analysis, dynamical systems, partial differential equations, and their application in fluid mechanics

Education

The University of Texas at Austin, Austin, Texas USA

Ph.D. Candidate in Mathematics (Pure) Aug. 2017 - Present

Xi'an Jiaotong University (XJTU), Xi'an, Shaanxi China

B.Sc. in Mathematics and Applied Mathematics (Elite Class) Aug. 2013 - July 2017
Thesis: *Linear Inviscid Damping of a Shear Flow in a Half Space and in a Finite Channel*
Advisor: Dongsheng Li and Zhiwu Lin

Honors and Awards

First Everest Research Scholarship, XJTU **2014**
National Scholarship, Ministry of Education, China **2016**
Pacemaker to Outstanding Student, XJTU **2016**
Frank Gerth III Graduate Excellence Award, UT Austin **2018**
Senate of College Council's TA of the Year, UT Austin **2019**
Frank Gerth III Teaching Excellence Award, UT Austin **2020**

Academic Experience

Georgia Institute of Technology, Atlanta, Georgia USA

Visiting Research Student **Feb. 2017 - May 2017**
Research includes the effect of density variation of fluids on the inviscid damping of stratified Couette flow, and the barotropic instability of shear flows for incompressible fluids with Coriolis effects.

The University of Texas at Austin, Austin, Texas USA

Teaching Assistant **Sept. 2017 - Present**
Teaching assistant for differential/integral/vector calculus, differential equations and linear algebra.

Publications

1. Xie, T., Cheng, X. & Yang, J. (2014) RAPTOR Program Designing Tutorial. Beijing: Tsinghua University Press.
2. Yang, J. & Lin, Z. (2018) *Linear Inviscid Damping for Couette Flow in Stratified Fluid*, Journal of Mathematical Fluid Mechanics, **20**: 445-472. https://doi.org/10.1007/s00021-017-0328-3
3. Lin, Z., Yang, J. & Zhu, H. (2020) *Barotropic Instability of Shear Flows*, Studies in Applied Mathematics, **144**: 289-326. https://doi.org/10.1111/sapm.12297

Preprint

1. Yang, J. (2020) *Construction of Maximal Functions associated with Skewed Cylinders Generated by Incompressible Flows and Applications*, submitted, arXiv:2008.05588
2. Vasseur, A. & Yang, J. (2020) *Second Derivatives Estimate of Suitable Solutions to the 3D Navier-Stokes Equations*, submitted, arXiv:2009.14291