
Appointments

- 2024–2025 **Member**, *Institute for Advanced Study*, Princeton, NJ
2022–2025 **L. E. Dickson Instructor**, *University of Chicago*, Chicago, IL
2017 **Visiting Scholar**, *Georgia Institute of Technology*, Atlanta, GA

Education

- 2017–2022 **Ph.D. in Mathematics**, *The University of Texas at Austin*, Austin, TX
Advisor: Luis Caffarelli and Alexis Vasseur
2013–2017 **B.Sc. in Mathematics and Applied Mathematics** (Honors Program), *Xi'an Jiaotong University*, China
2011–2013 **Special Class for the Gifted Young**, *Xi'an Jiaotong University*, China

Research Interests

Partial differential equations, fluid dynamics, Euler equation, Navier–Stokes equation.

Publications

- 2023 Alexis F. Vasseur and Jincheng Yang. Boundary vorticity estimates for Navier–Stokes and application to the inviscid limit. *to appear in SIAM Journal on Mathematical Analysis*, 2023. arXiv:2110.02426.
2022 Jincheng Yang. Construction of maximal functions associated with skewed cylinders generated by incompressible flows and applications. *Annales de l'Institut Henri Poincaré C*, 39:793–818, 2022.
Luhao Zhang, Jincheng Yang, and Rui Gao. Optimal robust policy for feature-based newsvendor. *to appear in Management Science*, 2022. OptOnline:18579.
2021 Alexis F. Vasseur and Jincheng Yang. Second derivatives estimate of suitable solutions to the 3D Navier–Stokes equations. *Arch. Ration. Mech. Anal.*, 241(2):683–727, 2021.
2020 Zhiwu Lin, Jincheng Yang, and Hao Zhu. Barotropic instability of shear flows. *Stud. Appl. Math.*, 144(3):289–326, 2020.
2018 Jincheng Yang and Zhiwu Lin. Linear inviscid damping for Couette flow in stratified fluid. *J. Math. Fluid Mech.*, 20(2):445–472, 2018.

Preprints

- 2023 Alexis F. Vasseur and Jincheng Yang. Layer separation of the 3D incompressible Navier–Stokes equation in a bounded domain. *submitted to Communications in Partial Differential Equations*, 2023. arXiv:2303.05236.

- 2022 Luhao Zhang, Jincheng Yang, and Rui Gao. A simple and general duality proof for Wasserstein distributionally robust optimization. *preprint*, 2022. arXiv:2205.00362.
- Jincheng Yang, Luhao Zhang, Ningyuan Chen, Rui Gao, and Ming Hu. Decision-making with side information: A causal transport robust approach. *preprint*, 2022. OptOnline:20639.

Honors and Awards

- May 2022 Frank Gerth III Outstanding Dissertation Award, *UT Austin*
- Mar 2021 University Graduate Continuing Fellowship, *UT Austin*
- June 2020 Frank Gerth III Teaching Excellence Award, *UT Austin*
- Apr 2019 Senate of College Council's TA of the Year, *UT Austin*
- June 2018 Frank Gerth III Graduate Excellence Award, *UT Austin*
- Oct 2016 Outstanding Student (The highest honor in Undergraduate, $10/30000$), *XJTU*
- Sept 2016 National Scholarship, *Ministry of Education, China*

Invited Talks

- Jan 2023 Calderón–Zygmund Analysis Seminar, *University of Chicago*
- Dec 2022 PDE and Applications Seminar, *Chinese Academy of Sciences (online talk)*
- Nov 2022 Analysis of Fluids and Related Topics, *Princeton University*
- Oct 2022 Informs Annual Meeting 2022, *Indianapolis*
- May 2021 AMS Spring Western Sectional Meeting, *San Francisco State University (zoom talk)*
Special Session on Nonlinear PDEs and Fluid Dynamics
- Mar 2021 AMS Spring Eastern Sectional Meeting, *Brown University (zoom talk)*
Contributed Paper Session

Teaching Experience

Instructor

- Fall 2022 MATH 18500 – Mathematical Methods in the Physical Sciences III
- Winter 2023 MATH 20400 – Analysis in \mathbb{R}^n II

Teaching Assistant

- Spring 2021 M383D – Methods of Applied Mathematics II
- 2019-2020 M427J – Differential Equations with Linear Algebra
- Fall 2018 M427L – Advanced Calculus for Applications II
- Spring 2018 M408D – Sequences, Series, and Multivariable Calculus
- Fall 2017 M408K – Differential Calculus

Mentoring Undergraduate Students

- Fall 2021 Kyle Alkire, *on the topic of Elliptic Partial Differential Equations*
- Spring 2020 Yongqi Pang, *on the topic of Statistics and Data Analysis*
- Spring 2019 Trey Minor, *on the topic of Differential Equations and Dynamical Systems*
- Spring 2018 Yan Cheng, *on the topic of Probability and Martingales*