Wenjun Zhao | Curriculum Vitae

Courant Institute of Mathematical Sciences, 251 Mercer Street – New York, NY 10012

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Education

PhD candidate in Atmosphere Ocean Science and Mathematics	**New York, US**
Courant Institute of Mathematical Sciences, New York University	*2016–now*
Advisor: Professor Esteban G. Tabak	
BS in Computational Mathematics	**Hefei, China**
Special Class for Gifted Youth, University of Science and Technology of China (USTC)	*2012–2016*
Visiting student at Department of Computer Science, University of Oxford	2015

Research interests

Optimal transport and its applications; theoretical and computational geophysical fluid dynamics.

Research experience

Graduate research projects

Resolving subgrid-scale turbulence dynamics with deep learning	**New York, US**
With Professors Oliver Bühler, Carlos Fernandez-Granda, and Esteban Tabak	*2018-now*
Conditional Density Estimation through Optimal Transport	**New York, US**
With Professors Esteban Tabak and Giulio Trigila	*Submitted to SIMODS*

From conventional barycenter optimal transport problem, we propose a methodology to explain the variability and provide simulated conditional density estimation with applications in forecast of US ground temperature. Presented at student seminar, NYU.

Undergraduate research projects

New Algorithms for Optimal Portfolio Deleveraging Problem	**Beijing, China**
Undergraduate thesis at Chinese Academy of Sciences	*2016*
Advisor: Professor Yuhong Duan	
Model Verification for Partially Observable Stochastic Hybrid System	**Oxford, UK**
Summer project at Department of Computer Science, University of Oxford, funded by USTC	*2015*
Mentor: Professor Alessandro Abate	
Macro Scheduling in Face of Ebola	
Meritorious Winner in Mathematical Contest of Modeling	*2015*
Numerical Methods in Solving the Resistance of Grid Problems	
Presented at Department of Physics, USTC and won first prize in school-wide Contest of Electromagnetics	*2013*

Participation

NASA JPL-Caltech Summer School: Using Satellite Observations to Advance Climate Models	
	2018

Programming skills

C, Java, MATLAB, Python, Mathematica, LaTeX, Linux

Honors

MacCracken Fellowship	**New York, US**
Courant Institute of Mathematical Sciences, New York University	*2016–now*

Teaching

Grader for undergraduate and graduate ODEs/PDEs, New York University	2017–2018
Teaching assistant for undergraduate multivariable calculus, USTC	2015