

Jaemin Park

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Research Interests

Nonlinear PDEs, Fluid dynamics

Education

Aug. 2016 - Present: **Georgia Institute of Technology**, Atlanta, GA USA

- Ph.D Candidate, Mathematics, Advisor: Prof. Yao Yao

Mar. 2010 - Feb. 2016: **Yonsei University**, Seoul, Republic of Korea
(Sep. 2012 - Jun. 2014, Military Service in Korea Army)

- B.S., Mathematics, Feb. 2016.

Papers

- (with J. Gómez-Serrano, J. Shi and Y. Yao) Symmetry in stationary and uniformly-rotating solutions of active scalar equations, Accepted in Duke Mathematical Journal, arXiv:1908.01722,
- Quantitative estimates for uniformly-rotating vortex patches, preprint arXiv:2010.06754
- (with J. Gómez-Serrano, J. Shi and Y. Yao) Remarks on stationary and uniformly-rotating vortex sheets: Rigidity results, preprint arXiv:2012.04548
- (with J. Gómez-Serrano, J. Shi and Y. Yao) Remarks on stationary and uniformly-rotating vortex sheets: Flexibility results, preprint arXiv:2012.08709
- (with J. Gómez-Serrano and J. Shi) Existence of non-trivial non-concentrated compactly supported stationary solutions of 2D Euler equation, in preparation

Invited Talks

- Analysis Seminar, Korea Institute of Advanced Study, Seoul, Korea August 2019
- Recent advances in nonlocal kinetic, fluid and diffusive PDEs, Jeju, Korea, August 2019
- Online North East PDE and Analysis Seminar, Carnegie Mellon University, July 2020 (Virtual)
- Analysis and PDE Seminar, University of Southern California, October 2020 (Virtual)
- Analysis and PDE Seminar, University of Los Angeles, October 2020 (Virtual)
- Analysis Seminar, University of Basel, December 2020 (Virtual)

Presentations

- Poster presentation. Conference on Nonlinear Partial Differential Equations and Applications, University of Michigan, Ann Arbor, USA, July, 2019
- Student Presentations, MSRI Summer Graduate School on Recent topics on well-posedness and stability of incompressible fluid and related topics, MSRI, Berkeley, USA, July, 2019
- Seminar talk, Student Analysis Seminar, Georgia Tech, Atlanta, USA, October, 2019

Teaching Experience

School of Mathematics, Georgia Tech, Atlanta, GA USA

- 2018 Fall, Thank-a-Teacher Certificate

Teaching Assistant

- 2020 Fall, MATH 2552: Differential Equations
- 2020 Spring, MATH 2552: Differential Equations
- 2019 Fall, MATH 1113: Pre-Calculus
- 2019 Spring, MATH 2552: Differential Equations
- 2018 Fall, MATH 2552: Differential Equations
- 2018 Spring, MATH 2552: Differential Equations
- 2017 Fall, MATH 2552: Differential Equations

Grader

- 2016 Fall, MATH 4441: Differential Geometry

Conferences Attended

- 2017 *joint Mathematics Meetings*, Atlanta, January 2017
- *Fourth Chicago Summer School In Analysis*, University of Chicago, Chicago, June 2017
- *Shanks Workshop on Mathematical Aspects of Fluid Dynamics*, Vanderbilt University, Nashville, March 2018
- *Rivière-Fabes Symposium*, University of Minnesota, Minneapolis, April 2018
- *The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, National Taiwan University, Taipei, July 2018
- *Ki-Net Young Researchers Workshop*, University of Maryland, College Park, October 2018
- *Rivière-Fabes Symposium*, University of Minnesota, Minneapolis, April 2019
- *Summer School on Recent Advances in Mathematical Fluid Dynamics*, University of Southern California, Los Angeles, May 2019
- *Summer school on fluids mechanics*, ICMAT, Madrid, June 2019
- *Conference on Nonlinear Partial Differential Equations and Applications*, University of Michigan, Ann Arbor, July 2019

- *Recent topics on well-posedness and stability of incompressible fluid and related topics*, MSRI, Berkeley, July 2019
- *Recent advances in nonlocal kinetic, fluid and diffusive PDEs*, Jeju, Korea, August 2019