Yash Jhaveri

Address

Rutgers University–Newark
Mathematics and Computer Science
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Appointments: Academic & Industry

Postdoctoral Associate, *Rutgers University–Newark*
Newark, New Jersey, Summer 2022 – Present

Ritt Assistant Professor, *Columbia University*
New York, New York, Fall 2020 – Summer 2022

Member, *Institute for Advanced Study*
Princeton, New Jersey, Fall 2018 – Fall 2020

Corporate Legal Assistant, *Wachtell, Lipton, Rosen & Katz*
New York, New York, Summer 2008 – Summer 2010

Education

D.Sc. in Mathematics
Eidgenössische Technische Hochschule (ETH) Zürich, Nov 2018
Advisor: Alessio Figalli

M.S. in Mathematics
New York University, Jan 2013

B.A. *cum laude* (concentration in Visual Arts)
Columbia University, May 2008

Grants & Honors

NSF Grant DMS-1954363/2243869, 2021 – 2024
William C. and Esther Hoffman Beller Scholar, Columbia University, 2005 – 2008

Conference Publications

2. *Action gaps and advantages in continuous-time distributional reinforcement learning* (**H. Wiltzer**, M. G. Bellemare, D. Meger, P. Shafto, and **Y. Jhaveri**), Advances in Neural Information Processing Systems (NeurIPS), (2024).
1. *Common ground in cooperative communication* (**X. Hao**, **Y. Jhaveri**, and P. Shafto), Advances in Neural Information Processing Systems (NeurIPS), *spotlight*, (2023).

Journal Publications

9. *Regularity properties of monotone measure-preserving maps* (with A. Figalli), Adv. Nonlinear Stud. **23** (2023), no. 1, Paper No. 20220057.
8. *On the regularity of optimal transports between degenerate densities* (with O. Savin), Arch. Ration. Mech. Anal. **245** (2022), no. 2, 819–861.
7. *On the singular set in the thin obstacle problem: higher order blow-ups and the very thin obstacle problem* (with X. Fernández-Real), Anal. PDE. **14** (2021), no. 5, 1599–1669.

6. *The obstacle problem for a fractional Monge–Ampère equation* (with P. R. Stinga), Comm. Partial Differential Equations. **45** (2020), no. 6, 457–482.
5. *On the (in)stability of the identity map in optimal transportation*, Calc. Var. Partial Differential Equations. **58** (2019), no. 3, Art. 96, 25 pp.
4. *Partial regularity of solutions to the secondary boundary value problem for generated Jacobian equations*, Methods Appl. Anal. **24** (2017), no. 4, 445–476.
3. *Higher regularity of the free boundary in the obstacle problem for the fractional Laplacian* (with R. Neumayer), Adv. Math. **311** (2017), 748–795.
2. *Lipschitz changes of variables between perturbations of log-concave measures* (with M. Colombo and A. Figalli), Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) **17** (2017), no. 4, 1–29.
1. *Nonlinear bounds in Hölder spaces for the Monge–Ampère equation* (with A. Figalli and C. Mooney), J. Funct. Anal. **270** (2016), no. 10, 3808–3827.

Service

Referee for Adv. Math., Ann. Inst. H. Poincaré Anal. Non Linéaire, Calc. Var. Partial Differential Equations, Discrete Contin. Dyn. Syst., Springer INdAM
Co-organizer of Geometry and Analysis Seminar, Columbia
Member of Diversity, Equity, and Inclusion Committee, Columbia

Invitations & Visits

ETH, May 1 – 14, 2022
University of Minnesota, Mar 13 – 17, 2022
Max Planck Institute, Nov 10 – 15, 2019
ETH, Nov 3 – 8, 2019
Michigan State, Mar 23 – 29, 2019
La Sapienza, May 6 – May 11, 2018
SISSA, Mar 18 – Apr 29, 2018
Iowa State, Jan 8 – 15, 2017
Universität Basel, Nov 7 – Dec 5, 2015
ENS Lyon, Oct 11 – Nov 7, 2015
Iowa State, Oct 3 – 9, 2015
ETH, Sept 15 – Oct 15, 2014

Talks

Nonlinear Analysis Seminar, Rutgers, Apr 27, 2022
PDE Seminar, University of Minnesota, Mar 16, 2022
Colloquium, Michigan State, Jan 21, 2022
Colloquium, Clemson, Jan 18, 2022
Colloquium, Purdue, Jan 11, 2022
Colloquium, The University of South Carolina, Dec 10, 2021
Optimal Transport Revisited, DMV-ÖMG Joint Annual Meeting, Sept 30, 2021
Learning Seminar on Analysis of PDEs, Universidade de Coimbra, Jun 17, 2021
DGGA Seminar, Princeton, Apr 21, 2021
PDE and Applied Math Seminar, University of Maryland, Feb 4, 2021
Colloquium, Stony Brook, Jan 14, 2021
Geometry and Analysis Seminar, Columbia, Sept 25, 2020
Analysis Seminar, CUNY Graduate Center, Mar 6, 2020
Analysis Seminar, Max Planck Institute, Nov 15, 2019
Analysis Seminar, ETH, Nov 5, 2019
Analysis Seminar, IAS, Oct 14, 2019
PDE Seminar, Brown, Sept 13, 2019
Swedish Summer PDEs, KTH, Aug 28, 2019

Analysis and PDE Seminar, Michigan State, Mar 27, 2019
Analysis Seminar, IAS, Apr 4, 2019
Nonlinear Analysis Seminar, Rutgers, Mar 5, 2019
Workshop in GMT and Free Boundary Problems, Hausdorff Institute, Feb 12, 2019
Analysis Seminar, UPenn, Feb 7, 2019
Analysis Seminar, SISSA, Apr 24, 2018
Transport problems in Zürich, Univeristät Zürich, Apr 25, 2017
GJEs: from Geometric Optics to Economics, Banff, Apr 10, 2017
Analysis Seminar, Iowa State, Jan 11, 2017
Analysis Seminar, Univeristät Basel, Nov 25, 2015
Analysis Seminar, ENS Lyon, Oct 22, 2015
Analysis Seminar, Iowa State, Oct 8, 2015
Prairie Analysis Seminar, Kansas State, Sept 25, 2015
Analysis Seminar, UT Austin, Apr 3, 2015

Teaching

Instructor, Columbia

- Analysis and Optimization, Spring 2022
- Introduction to Modern Analysis II, Fall 2021
- Fourier Analysis, Summer 2021
- Analysis and Optimization, Spring 2021

Teaching Assistant, ETH Zürich

- Functional Analysis I, Fall 2017
- Functional Analysis II, Spring 2017
- Functional Analysis I, Fall 2016

Teaching Assistant, SI Program, UT Austin

- Integral Calculus, Spring 2015

Teaching Assistant, UT Austin

- Multivariable Calculus, Spring 2014
- Multivariable Calculus, Fall 2013

Mathematics Tutor, *My Learning Springboard*
New York, New York, Summer 2012 – Summer 2013