Harsha Honnappa

Associate Professor
Edwardson School of Industrial Engineering
Purdue University

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APPOINTMENTS

ACADEMIC

Associate Professor Edwardson School of Industrial Engineering, Purdue University
Aug. 2022 - To Date
Director, Stochastic Systems Lab (SSL)
Affiliated with Center for Resilient Infrastructures, Systems and Processes (CRISP).
Affiliated with Center for Innovation in Control, Optimization and Networks (ICON).

Assistant Professor Edwardson School of Industrial Engineering, Purdue University
Aug. 2015 - Aug. 2022

Visiting Assistant Professor Edwardson School of Industrial Engineering, Purdue University
Jan. 2015 - Aug. 2015

CORPORATE

Research Intern Mathematics of Networks, Bell Labs, Murray Hill NJ Jun   2013 - Aug. 2013

Technical Architect Applied Research Group, Satyam Computer Services and Indian Institute of Science (IISc), Bangalore India   Dec. 2007 - May 2009

Analytic Science - Scientist FairIsaac (FICO) Corp., San Diego CA, Jun. 2006 - Nov. 2007

EDUCATION

Doctor of Philosophy
Electrical Engineering, University of Southern California   2009 - 2014

Minor Applied Mathematics, University of Southern California   2012 - 2014

Visiting Graduate Student
Management Science and Engineering, Stanford University   May 2014-Dec. 2014

Master of Science
Electrical Engineering, University of Southern California   2004 - 2006

Bachelor of Engineering
Telecommunications Engineering, R.V. College of Engineering, Bangalore India   2000 - 2004.

AWARDS & HONORS

2024   Visiting Faculty Fellow – Institute for Advanced Study, University of Amsterdam.
2023   J. Tinsley Oden Fellow – Visiting faculty fellowship, Oden Institute, UT Austin.
2022   NSF CAREER Award – NSF's top early career grant.
2017   Outstanding Graduate Mentor, College of Engineering, Purdue University.
2016   Lajos Takács Award for Outstanding Ph.D. Thesis in Queueing Theory – Awarded biennially by ECQT.

2014 Simons+X Post-doctoral Fellow, UT Austin (declined).
2014 MIT/MGH Post-doctoral Fellowship (declined).
2014 Post-doctoral Fellowship, T.U. Eindhoven (declined).
2013–2014 Ming-Hsieh Institute PhD Fellow – Awarded to top 5 graduate students.
2013 Best Paper Award (Hon. Mention), Ming-Hsieh Dept. of EE, USC.
2012 MIT Travel Grant – Travel grant to attend the Stochastic Networks conference, awarded to a handful of graduate students across the U.S.
2010 National Science Foundation Travel Grant – Awarded to a handful of graduate students globally to attend the Stochastic Networks workshop at the Newton Institute, Cambridge University.

RESEARCH OVERVIEW
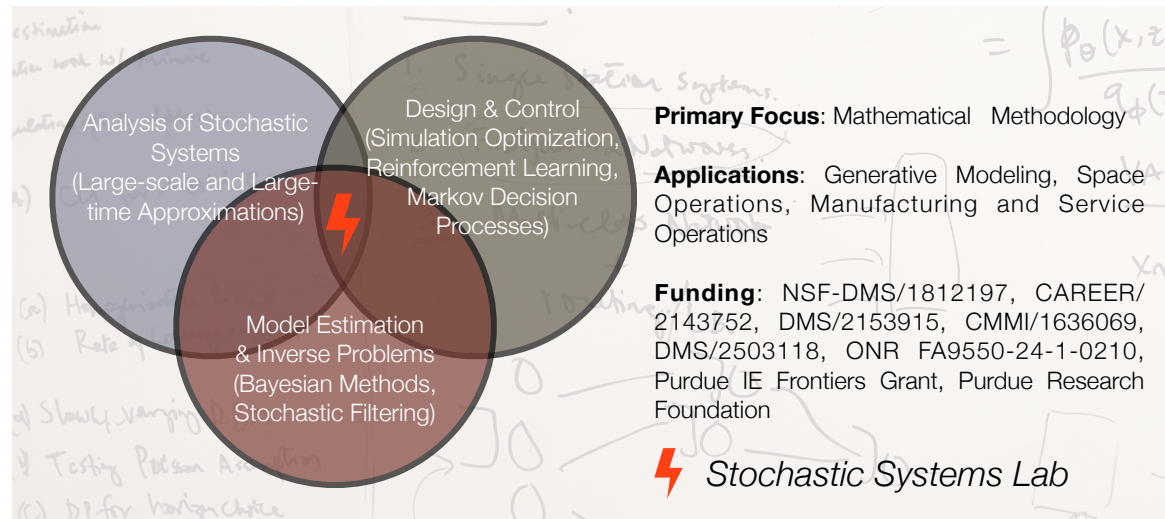
The Stochastic Systems Lab creates new mathematical methods for stochastic modeling, control, and inference. Our work connects theory—such as approximations, optimization, and Bayesian estimation—to applications in generative modeling, space operations, and large-scale service and manufacturing systems.

PUBLICATIONS

Refereed Journal Articles

[1] H. Honnappa*, R. Jain and A. R. Ward. "The $\Delta(i)$/GI/1 Queueing Model, and its Fluid and Diffusion Approximations," *Queueing Systems: Theory and Applications*, 80(1–2):71–103, 2015.

[2] H. Honnappa* and R. Jain. "Strategic arrivals into queueing networks: The network concert queueing game," *Operations Research*, 63(1):247–259, 2015.

[3] H. Honnappa. "Rare Events of Transitory Queues," *Journal of Applied Probability*, 54(3):943–962, 2017.

[4] A. R. Hota*, G., H. Honnappa* and S. Sundaram. "The Superposition-Traffic Game," *ACM SIGMETRICS Performance Evaluation Review*, 44(3):22–25, 2017.

[5] M. Armony, R. Atar* and H. Honnappa*. "Asymptotically Optimal Appointment Schedules," *Mathematics of Operations Research*, 40(4):1345–1380, 2019.

[6] R. v. d. Hofstad* and H. Honnappa*. "Large Deviations of Bivariate Gaussian Extrema," *Queueing Systems*, 93(3–4):333–349, 2019.

[7] W. Zhang*, G., H. Honnappa* and S. Ukkusuri. "Modeling Urban Taxi Services with e-hailings: A

Queueing Network Approach," *Transportation Research Part C: Emerging Technologies*, 113:332–349, 2019.

[8] P. Jaiswal*, G., H. Honnappa and V. A. Rao. "Asymptotic Consistency of Loss-Calibrated Variational Bayes," *Stat*, 9:e258, 2019.

[9] R. Pasupathy*, H. Honnappa* and S. R. Hunter*. "Open Problem–Adaptive Constant-Step Stochastic Approximation," *Stochastic Systems*, 9(3):307–310, 2019.

[10] R. Atar* and H. Honnappa*. "Introduction to the Applied Probability Society's "Open Problems in Applied Probability" Session at the INFORMS Annual Meeting, Phoenix, Arizona, November 4–7, 2018," *Stochastic Systems*, 9(3):291, 2019.

[11] H. Gehlot* G., H. Honnappa* and S. Ukkusuri. "An Optimal Control Approach of Day-to-Day Congestion Pricing for Stochastic Transportation Networks," *Computers and Operations Research*, 119:104929, 2020.

[12] Z. Zheng* G., H. Honnappa* and P. W. Glynn. "Approximating Systems Fed by Poisson Process with Rapidly Changing Arrival Rates," to appear in *Operations Research*.

[13] P. Jaiswal* G., V. A. Rao* and H. Honnappa*. "Consistency of α-Renyi Variational Upper Bounds," *Journal of Machine Learning Research*, 21(156):1–42, 2020.

[14] P. Chakraborty* G. and H. Honnappa*. "Strong Embeddings for Transitory Queueing Models," *Mathematics of Operations Research*, 42(7):1048–1081, 2022.

[15] Y. Liu* G., H. Honnappa*, S. Tindel* and N.-K. Yip*. "Infinite Server Queues in a Random Fast Oscillatory Environment," *Queueing Systems*, 98:145–179, 2021.

[16] P. Chakraborty* G. and H. Honnappa. "A Many-Server Functional Strong Law For A Non-Stationary Loss Model," *Operations Research Letters*, 49(3):338–344, 2020.

[17] Z. Selk* G., H. Honnappa* and W. B. Haskell. "Information Projection on Banach Spaces with Applications to State Independent KL-Weighted Optimal Control," *Applied Mathematics and Optimization*, 2021. doi:10.1007/s00245-021-09786-4.

[18] I. Banerjee* G., V. A. Rao* and H. Honnappa*. "PAC-Bayes Bounds for Variational Tempered Posteriors on Markov Data Models," *Entropy*, 23(3):313, 2021.

[19] Y. Ji* G., Y. Sun* G., G. Scutari* and H. Honnappa. "Distributed Sparse Regression via Penalization," *Journal of Machine Learning Research*, 24(272):1–62, 2023.

[20] Y. Ji* G., Y. Sun* G., G. Scutari* and H. Honnappa. "Distributed (ATC) Gradient Descent for High-Dimension Sparse Regression," *IEEE Transactions on Information Theory*, 69(8):5253–5276, 2023.

[21] P. Jaiswal* G., H. Honnappa and V. A. Rao. "Bayesian Chance Constrained Optimization: Approximations and Statistical Consistency," *SIAM Journal on Optimization*, 33(3):1968–1995, 2023.

[22] Z. Selk* G. and H. Honnappa. "The Small-Noise Limit of the Most Likely Element is the Most Likely Element in the Small-Noise Limit," *ALEA, Latin American Journal of Probability and Mathematical Statistics*, 21:849–862, 2024.

[23] I. Banerjee* G., H. Honnappa and V. Rao. "Offline Estimation of Controlled Markov Chains: Minimaxity and Sample Complexity," to appear in *Operations Research*, 2025.

Products Under Review and In Preparation

[1] P. Chakraborty, H. Honnappa and S. Tindel. "Pathwise Relaxed Optimal Control Of Rough Differential

Equations." Submitted to *SIAM J. of Optimization and Control*, 2024.

[2] Z. Zhou*, R. Pasupathy and H. Honnappa. "Drift Optimization of Regulated Stochastic Models using Sample Average Approximation." Submitted to *Operations Research*, 2025.

[3] E. Ashkarian*, P. Chakraborty, H. Honnappa and S. Tindel. "Towards a Numerical Solution for Relaxed Controls of Rough Differential Equations." *In Preparation*, 2025.

[4] I. Banerjee* G., H. Honnappa and V. Rao. "Adaptive Estimation of the Transition Density of Controlled Markov Chains." Submitted to *Bernoulli*, 2025.

[5] S.A. Bodas*, H. Honnappa, L. Ravner and M. Mandjes. "A stochastic optimization algorithm for revenue maximization in a service system with balking customers." *In Preparation*, 2025.

[6] M.M. Shibl*, S. Srinivasan*, H. Honnappa, V. Gupta. "Linear Quadratic Control with Non-Markovian and Non-Semimartingale Noise Models: A Rough Path Approach" *In Preparation*, 2025.

[7] S. Srinivasan*, H. Honnappa and V. Gupta. "Robust Filtering for Lévy-driven Stochastic Models" *In Preparation*, 2025.

[8] Z. Zhou*, H. Honnappa and R. Pasupathy. "Sequential Quadratic Programming for Monge's Optimal Transport Problem" *In Preparation*, 2025.

Refereed Conference and Symposium Papers

[1] H. Honnappa* and R. Jain. "Strategic arrivals into queueing networks," *Proc. of the Allerton Conference on Systems, Communications and Control*, 2010.

[2] H. Honnappa*, R. Jain and A. Ward. "Strategically arriving users into queueing systems," *SIAM Conference on Control and its Applications*, 2011.

[3] H. Honnappa*, R. Jain and A. Ward. "A transitory queueing model, and its process limits," *ValueTools Conference*, 2012. (Acceptance rate: 46%.)

[4] H. Honnappa*, R. Jain and A. R. Ward. "The $\Delta(i)/GI/1$ Queue: A New Model of Transitory Queueing," *Proc. of the Allerton Conference*, 2012.

[5] H. Honnappa*, R. Jain and A. R. Ward. "Mean Field Limits by Population Acceleration," *Proc. of the IEEE Conference on Decision and Control*, 2014.

[6] H. Honnappa*. "Rare Events of Marked Finite Point Processes," *Proc. of the 53rd Annual Allerton Conference on Communication, Control, and Computing*, 2015.

[7] P. Jaiswal* G., H. Honnappa and R. Pasupathy. "Optimal Allocations for Sample Average Approximation," In Rabe, M.; Juan, A. A.; Mustafee, N.; Skoogh, A.; Jain, S.; and B. Johansson (eds.), *Proc. of the Winter Simulation Conference*, 2018. (Acceptance rate: 70%.)

[8] W. Zhang* G., H. Honnappa and S. Ukkusuri. "Modeling Urban Taxi Services with e-hailings: A Queueing Network Approach," *Transportation Research Procedia*, 38:751–771, 2019. (Acceptance rate: 15%.)

[9] P. Jaiswal* G., H. Honnappa and V. A. Rao. "Variational Bayesian Methods for Stochastically Constrained System Design Problems," *Proceedings of Machine Learning Research*, Vol. 118, 2nd Symposium on Advances in Approximate Bayesian Inference (NeurIPS 2019).

[10] R. Wang* G., P. Jaiswal* G. and H. Honnappa. "Estimating Stochastic Poisson Intensities Using Deep

Latent Models," *Proc. of the Winter Simulation Conference*, 2020. (Acceptance rate: 67%.)

[11] P. Jaiswal* G. and H. Honnappa. "Statistical Inference For Approximate Bayesian Optimal Design," *Proc. of the Winter Simulation Conference*, 2020. (Acceptance rate: 67%.)

[12] R. Wang* G. and H. Honnappa. "Calibrating Infinite Server Queueing Models Driven by Cox Processes," *Proc. of the Winter Simulation Conference*, 2021. (Acceptance rate: 67%.)

[13] Z. Zhou, H. Honnappa and R. Pasupathy. "Sample Average Approximation over Function Spaces: Statistical Consistency and Rates of Convergence," *Proc. of the Winter Simulation Conference*, 2022. (Acceptance rate: 67%.)

[14] P. Jaiswal* G., H. Honnappa and V. A. Rao. "On the Statistical Consistency of Risk-Sensitive Bayesian Decision-Making," *Proc. of NeurIPS*, 2023. (Acceptance rate: 26.1%.)

[15] Y. Ji* G., Y. Sun, G. Scutari and H. Honnappa. "Distributed Gradient Descent for High Dimension Sparse Regression," *Proc. of NeurIPS*, 2024. (Journal-to-Poster track.)

[16] I. O. Ryzhov, R. Pasupathy and H. Honnappa. "Introduction to Optimal Transport," *Proc. of the Winter Simulation Conference*, 2024. (Acceptance rate: 67%.)

Other Publications and Products

Papers Presented at Workshops

[1] H. Honnappa*. "Customer Event Rate Estimation Using Particle Filters," *Australasian Data Mining Conference (AusDM)*, 2008.

[1] P. Jaiswal* G., H. Honnappa and V. A. Rao. "Variational Inference for Risk-Sensitive Decision-Making," *NeurIPS Workshop on Safety and Robustness in Decision-Making*, Vancouver, 2019.

[3] X. Du*, H. Honnappa and V.Rao. "Generative Modeling of Stochastic Point Processes." *ML×OR Workshop, Neurips 2025* (to appear).

Working Papers

[1] H. Honnappa*, P. Jaiswal G., R. Pasupathy*. "Dominating Points of Gaussian Extremes." arXiv:1810.12132.

[2] H. Honnappa* and P. W. Glynn. "On Gaussian Limits and Large Deviations for Queues Fed by High Intensity Randomly Scattered Traffic." arXiv:1708.05584.

[3] H. Honnappa, R. Jain and A. R. Ward. "On Transitory Queueing." arXiv:1412.2321.

[4] H. Honnappa and R. Jain. "Transitory Queueing Networks." arXiv:1708.05921.

[5] H. Honnappa*, Z. Zheng* and P. W. Glynn. "Asymptotic and Exact Expansions for Slowly-varying Non-stationary Reflected Brownian Motion."

[6] Y. Liu* G., H. Honnappa, S. Tindel and N.-K. Yip. "Rescaled Limits for a $Gt/Gt/\infty$ Queueing Model in a Random Environment."

[7] A. Tatara* G. and H. Honnappa. "Asymptotics of Rate Estimators for Marked Point Processes."

[8] P. Jaiswal, H. Honnappa and V. A. Rao. "Variational Inference for Diffusion-Modulated Cox Processes."

[9] Z. Selk* G., W. B. Haskell and H. Honnappa. "Effective Projections of Probability Measures to Convex Submanifolds."

[10] Z. Zheng*, H. Honnappa* and P. W. Glynn*. "Approximating Performance Measures for Slowly Changing Non-stationary Markov Chains." (Major revision at *Operations Research.*)

[11] Z. Selk* G. and H. Honnappa. "A Feynman-Kac Type Theorem for ODEs: Solutions of Second Order ODEs as Modes of Diffusions."

[12] T. O'Leary-Roseberry, D. Luo, L. Cao and H. Honnappa. "Rare Event Estimation for Neural Operators."

[13] C. Bajaj and H. Honnappa. "Optimally Controlled Stochastic Gradient Flow."

[14] Z. Zhou, H. Honnappa and R. Pasupathy. "Discretization Guarantees for Optimal Transport Problems."

[15] B. Wei, Y. Dong, W. B. Haskell and H. Honnappa. "Visibility and Invisibility in Ticket Queue Systems."

[16] P. Chakraborty, H. Honnappa and S. Tindel. "Q-Learning for Controlled Rough Differential Equations."

[17] P. Chakraborty, H. Honnappa and S. Tindel. "Policy Evaluation for Controlled Rough Differential Equations."

[18] G. Scutari, M. Maros, H. Honnappa and Y. Ji. "Distributed Stochastic Sparse Recovery."

[19] E. Srinivasan, S. Dhara and H. Honnappa. "Detection Time of Diffusing Particles on a Sphere."

[20] X. Du and H. Honnappa. "Renewal Processes Represented as Doubly Stochastic Poisson Processes."

[21] B. Jin, H. Honnappa and B. Ata, "Optimal Noise Schedules for Score-based Generative Models."

[22] X. Du and H. Honnappa. "Variational Inference for Nonparametric Maximum Likelihood Estimation of Doubly Stochastic Poisson Models."

[23] S.A. Bodas and H. Honnappa. "Lightspeed Queueing Analyses using Neural Operators."

[24] U. Chatterjee, H. Honnappa and S. Dhara. "Polymorphic Epidemic on Locally converging Dynamic Random Graphs."

[25] J. Choi, S. Dhara and H. Honnappa. "Compartmentalized Stochastic Models of Low Earth Orbit Capacity."

SPONSORED RESEARCH / GRANTS **$2.8 Million in total funding ($2.5 Million extramural); $1.9 Million in personal responsibility.**	**C4E: Sustainable Communities Seed Grant** Role: Co-PI ($7,000 of $20,000). Co-Investigators: Roshi Nateghi (IE), David Yu (CE/POL).	04/2016 – present
	NSF (ENG/CMMI): Transitory Stochastic Models Grant No.: 1636069 Role: PI ($225,000). Co-Investigators: N/A.	08/2016 – 07/2020
	NSF (DMS/Statistics): Decision-Theoretic Bayesian Computation Grant No.: 1812197 Role: Co-PI ($75,000 of $150,000). Co-Investigators: Vinayak A. Rao (Statistics, Purdue).	08/2018 – 07/2021

EFC: Data Science Competition 06/2018 – 05/2019
Role: Co-PI ($28,000 of $84,000).
Co-Investigators: Gesualdo Scutari (IE).

School of Industrial Engineering / IE Emerging Frontiers Teams Initiative: The Theory of Data Science 01/2018 – 05/2020
Role: Co-PI.
Co-Investigators: Gesualdo Scutari (IE), Andrew Liu (IE), Roshanak Nateghi (IE), Guang Cheng (Statistics).

NSF (ENG/CMMI): Transitory Stochastic Models (Data Science Supplement) 08/2020 – 07/2021
Grant No.: 1636069
Role: PI ($44,044).
Co-Investigators: N/A.

NSF CAREER (ENG/CMMI): Towards a Data-driven Service Engineering Methodology 05/2022 – 04/2027
Grant No.: 2143752
Role: PI ($504,000).
Co-Investigators: N/A.

NSF (DMS/Probability): Continuous-time Reinforcement Learning using Rough Paths 08/2022 – 07/2025
Grant No.: 2153915
Role: Co-PI ($250,000 of $655,634).
Co-Investigators: Samy Tindel (Mathematics, Purdue), Prakash Chakraborty (Penn State IME).

Office of Naval Research (ONR) 08/2024 – 07/2027
Grant No.: FA9550-24-1-0210
Role: PI ($480,000 of $600,000).
Co-Investigators: Vijay R. Gupta (ECE, Purdue).

School of Industrial Engineering / IE Emerging Frontiers Teams Initiative
Purdue Orbital Deployment Assessment System 07/2024 – 05/2027
Role: PI ($200,000).
Co-Investigators: N/A.

NSF (DMS/Statistics): Learning to Learn with Rigor: Foundations of Amortized Inference 09/2025 – 08/2028
Grant No.: 2503118
Role: Co-PI ($116,000 of $350,000).
Co-Investigators: Vinayak A. Rao (Statistics, Purdue) and Lizhen Lin (UMD, College Park).

PATENTS   **A Method for Randomized Load Balancing**
Co-Inventor: Vijay G. Subramanian.
Awarded: 02/23/2021. Patent No.: US-10931583-B2.

A System for Randomized Load Balancing
Co-Inventor: Vijay G. Subramanian.
Awarded: 01/02/2024. Patent No.: US-11863452-B2.

TEACHING

Courses Taught (Pre-2020: Instructor Evaluations)

Semester	Course Title	Course No.	Responsibility	Course Eval.	Prof Eval.
SP/2015	Queueing Theory	IE 590	100%	5.0	5.0
FA/2015	Stochastic Systems Modeling	IE 690	100%	4.9	4.9
SP/2016	OR – Stochastic Models	IE 336	100% (1.5 GTA's)	3.3	3.1
FA/2016	Queueing Theory	IE 590	100%	4.5	4.8
SP/2017	Senior Design	IE 431	100% (2.5 GTA's)	4.4	4.1
FA/2017	Stochastic Networks	IE 590	100%	5.0	5.0
SP/2018	Dynamic Programming	IE 633	100%	4.8	4.8
SP/2018	Advanced Queueing Theory	IE 690	100%	5.0	5.0
FA/2018	OR – Stochastic Models	IE 336	100% (1.5 GTA's)	3.2	2.5
SP/2019	Dynamic Programming	IE 633	100%	4.0	4.0
SP/2019	Stochastic Networks	IE 590	100%	5.0	5.0
FA/2019	OR – Stochastic Models	IE 336	100% (1.5 GTA's)	3.6	3.7
SP/2020	Dynamic Programming	IE 633	100%	4.6	4.8
SP/2020	Applied Probability for ML	IE 690	100%	5.0	5.0

Courses Taught (2020–Present: CIE Averages)

Semester	Course Title	Course No.	CIE Avg (Min–Max)
FA/2020	OR – Stochastic Models	IE 336 A	4.12 (3.65–4.42)
FA/2020	OR – Stochastic Models	IE 336 B	4.26 (4.0–4.44)
SP/2021	Dynamic Programming	IE 633	4.26 (4.0–4.5)
SP/2021	Stochastic Networks	IE 590	4.43 (4.0–4.67)
FA/2021	OR – Stochastic Models	IE 336	3.80 (3.4–4.02)
SP/2022	Dynamic Programming	IE 633	4.30 (3.75–5.0)
SP/2022	Stoch. Models in OR I	IE 536	4.44 (4.0–4.75)
FA/2022	Applied Prob. for ML	IE 690	4.75 (4.5–5.0)
SP/2023	Dynamic Programming	IE 633	4.88 (4.5–5.0)
SP/2023	Stochastic Networks	IE 690	5.0 (5.0–5.0)
FA/2023–SP/2025	Sabbatical and Buyout	N/A	N/A

Ph.D. and M.S. Students (Advisor/Chair)

Student	Degree	Graduation	Title/Outcome
Sidi Deng	M.S.	2017	Non-thesis
Anna N. Tatara	MSIE	2019	Rate Estimators for Non-stationary Point Processes/Data Consultant, Propeller.
Zihe Zhou	MSIE	2019	Simulation Optimization of Diffusion Processes/Current Ph.D. candidate
Prateek Jaiswal	Ph.D. (IE)	2021	Variational Inference for Stochastic Programming/Assistant Professor (NTT), Daniels School of Business, Purdue
Prakash Chakraborty	Ph.D. (Stats)	2020	Contributions to Rough Paths and Stochastic PDES/Assistant Prof. (TT) Penn State.
Zachary Selk	Ph.D. (Math)	2022	Gaussian Measures and Processes/Postdoc Florida State
Ruixin Wang	Ph.D. (IE)	2022	Aspects of Modern Queueing Theory/Huawei Research
Imon Banerjee	Ph.D. (Stats)	2023	PAC Bounds for Estimating Markov Transition Kernels (Co-advised with V. Rao)/Assistant Prof. (NTT) Northwestern University
Yao Ji	Ph.D. (IE)	2024	High-Dimensional Inference over Networks (Co-advised with G. Scutari)/ Postdoc GaTech
Zihe Zhou	Ph.D. (cand.)	2026	Essays on Infinite Dimensional Stochastic Optimization
Sharan Srinivasan	Ph.D. (ECE)	In progress	TBD (Co-advised with V. Gupta)
Xinlong Du	Ph.D.. (IE)	In progress	TBD
Eashvar Srinivasan	Ph.D. (IE)	In progress	TBD (Co-advised with S. Dhara/GaTech)

Graduate Students (Mentored/Collaborated)

Student	Degree	Graduation	Notes/Outcome
Ashish R. Hota	Ph.D. (ECE)	2018	Mentor, co-author; Asst. Prof. (TT) IIT Kharagpur
Zeyu Zheng	Ph.D. (MS&E, Stanford)	2018	Mentor, co-author; Assoc. Prof. UC Berkeley IEOR
Hemant Gehlot	Ph.D. (CIVL)	2021	Mentor, co-author; Asst. Prof. (TT) IIT Kanpur
John A. Haug	Ph.D. (Math)	2025	Mentor, co-author
Shreehari A. Bodas	Ph.D. (Math)	2026 (exp.)	Mentor, co-author; Univ. of Amsterdam
Jaewon Choi	Ph.D. (IE)	2025	Summer intern 2024, Samsung Research Korea
Uttaran Chatterjee	Ph.D. (IE)	In progress	Grad student at Purdue/GaTech

Undergraduate Students Mentored

Student	Period	Project/Outcome
Anna Tatara	2016–2017	Queueing models project/later MSIE
Kaixuan Wang	2016	Graduate school applications
Xiao Shi	2016–2017	Basketball analytics project/Grad school
Minnie Tan	2018–2019	Point process estimation; OUR fellowship
Xiaotian (Jeffrey) Wang	2019–2020	PDEs & queues; NSF GRFP awardee
Rachel Osbourne	2019	Bayesian decision-making study/Grad school
Braxton T. Ratekin	2019	Neural networks for rare events
Yahia M. Aly	2019	Neural networks for rare events
Jiani He	2019	Graduate school applications
Sebastian Fernandes	2021	Advisor scoring system project/Deloitte
Aidan Sommers Yoshiro	2022–2023	Advisor scoring + AI models for teaching/US Navy
Hudson Hochstedler	2022–2023	Monte Carlo for ODEs/stochastic processes/Hedge Fund
Sumeeth Guda	2022–2023	Nonparametric GOF tests for Markov chains/Grad school
Eashvar Srinivasan	2024–2025	Summer intern, Percolation models/GaTech grad student
B. Pon Kailash Raj	2025–To Date	Summer intern; Compartmentalized models.
R. Balaji	2025– To date	Summer intern; RL for impulse control.

SERVICE AND ENGAGEMENT

Service to Purdue University

- IE Computes/SODA Faculty Champion (2024–2025).
- Faculty Search Committee Chair (2024–2025).
- Organizer, IE-PQSEI Workshop, March 2025.
- Seminar Committee (2017–2018).
- Awards Committee (2020–2021).
- Undergraduate Committee (2021–2023).
- Gateway Complex Faculty Champion for OR group (2022–2023).
- Dream Hire pitch for Prof. Jeff Hong (Fudan Univ.).
- Faculty Search Committee (2022–2023).
- Faculty Advisor, INFORMS Student Chapter (2017–███).
- Affiliate Faculty, CRISP (2017–present).
- Affiliate Faculty, ICON Center (2020–present).

Service to Government and Professional Organizations

- Associate Editor, *Operations Research* (2019–present).
- Associate Editor, *Operations Research Letters* (2018–2024).
- Area Editor, Stochastic Models, *Operations Research Letters* (2024–present).
- Associate Editor, *Queueing Systems* (2022–present).
- George Nicholson Prize Committee (2025)
- Governing Council Member, INFORMS Applied Probability Society (2017–2019).
- NSF Review Panels: CPS (2018), CMMI (2015, 2017, 2023), BigDATA (2016).
- ISF Review Panels (2020, 2022, 2023).
- BSF Review Panel (2023).
- Reviewer: *Operations Research*, *Queueing Systems*, *IEEE TAC*, *MSOM*, *EJOR*, *MOR*, *Stochastic Systems*, NeurIPS, ICML, AISTATS, ICLR, etc.

International Activities

Research Collaborations

- Technion (Rami Atar), 2015–2018.
- KTH Stockholm (Pierre Nyquist), 2018–present.
- Tata Institute of Fundamental Research (Sandeep Juneja), 2019–present.
- Leiden University & Univ. of Amsterdam (Michel Mandjes), 2024–present.
- External Reviewer: ISF (2020, 2022), BSF (2023).

Educational Activities

- Invited Speaker, Advances in Applied Probability Workshop, ICTS Bangalore, India (2019).

Other Engagement and Outreach

- TPC Member, WiOpt 2016 (Winter Simulation Conf., MURS track).
- Organizer, Midwest Workshop on Control and Game Theory (2016).
- Cluster Co-Chair, INFORMS Annual Meeting (2018).
- Organizer, Open Problems Session, INFORMS Annual Meeting (2018).
- Organizer, Open Problems in Applied Probability, INFORMS APS Conf. (2019).
- Guest Editor, *Stochastic Systems*, Open Problems issue (2019).
- TPC Member, APS Conference (2019).
- TPC Member, Reinforcement Learning for Stochastic Networks Conference (2024).
- Editor, Special Issue on "Queues for Operations Management," *Queueing Systems*.
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