Dilshad Imon

dilshadimon@gmail.com
idilshad@unc.edu
PhD Student
Department of Statistics and Operations Research
University of North Carolina at Chapel Hill

Education

2021-(ongoing)*	**Ph.D.**, Department of STOR, University of North Carolina at Chapel Hill
2019-21	**M. Sc. in Statistics**, Indian Institute of Technology Kanpur
2016-19	**B. Sc. in Statistics**, St. Xavier's College, Kolkata (University of Calcutta)

Research Interests

Probability Theory, Stochastic Analysis, Markov Processes, Asymptotics and Long-Time Behavior of Interacting Particle Systems.

Research

3. Long Time Asymptotics for the Stochastic Follow-the-Leader System (2026). (with S. Banerjee and A. Budhiraja). *Submitted to The Annals of Applied Probability.*

2. Flocking under Fast and Large Jumps: Stability, Chaos, and Traveling Waves (2024). (with S. Banerjee and A. Budhiraja). *Submitted to Probability Theory and Related Fields.*

1. Confidence Interval for Effective Sample Size for Markov Chain Monte Carlo (2021). *Master's thesis, IIT Kanpur (supervised by Dr. Dootika Vats)*

Awards & Honors

2025	Graduate Student Transportation Grant, The Graduate School, UNC Chapel Hill
2021	Jasmine & Mohiuddin Merit Scholarship, IIT Kanpur
2020	N. Balakrishnan Award in Statistics, IIT Kanpur
2020	Academic Excellence Award, IIT Kanpur
2016-21	INSPIRE Scholarship for Higher Education awarded by DST, Govt. of India

Experience

Teaching

Fall 2024	Instructor for STOR155 - Introduction to Data Models and Inference

Lab Instructorships

Summer II 2024	Lab Instructor for STOR320 - Introduction to Data Science, UNC Chapel Hill
Summer I 2024	Lab Instructor for STOR320 - Introduction to Data Science, UNC Chapel Hill
Summer II 2023	Lab Instructor for STOR320 - Introduction to Data Science, UNC Chapel Hill

Instructional Assistantships (IA)

Fall 2025	IA for STOR555 - Mathematical Statistics, UNC Chapel Hill
Summer II 2025	IA for STOR155 - Introduction to Data Models and Inference, UNC Chapel Hill
Summer II 2025	IA for STOR113 - Decision Models for Business and Economics, UNC Chapel Hill
Summer I 2025	IA for STOR155 - Introduction to Data Models and Inference, UNC Chapel Hill
Summer I 2023	IA for STOR435 - Introduction to Probability, UNC Chapel Hill
Spring 2023	IA for STOR435 - Introduction to Probability, UNC Chapel Hill
Fall 2022	IA for STOR555 - Mathematical Statistics, UNC Chapel Hill
Summer II 2022	IA for STOR155 - Introduction to Data Models and Inference, UNC Chapel Hill
Summer I 2022	IA for STOR435 - Introduction to Probability, UNC Chapel Hill
Spring 2022	IA for STOR435 - Introduction to Probability, UNC Chapel Hill
Fall 2021	Grader for STOR435 - Introduction to Probability, UNC Chapel Hill

Research Assistantships

Spring 2026	PI: Dr. Amarjit Budhiraja
Spring 2025	PI: Dr. Sayan Banerjee
Spring 2024	PI: Dr. Amarjit Budhiraja
Fall 2023	PI: Dr. Amarjit Budhiraja

Review work

Proceedings of the American Mathematical Society
Methodology and Computing in Applied Probability

Invited and contributed talks

2026   *Long Time Asymptotics for the Stochastic Follow-the-Leader System.* Probability and Combinatorics Seminar, Stony Brook University, USA

2025   *Flocking under Fast and Large Jumps in a Non-linear Mean Field System.* YMCN Summer School in Interacting Random Systems, University of Münster, Germany

2025   *Flocking under Fast and Large Jumps in a Non-linear Mean Field System.* SPDE Workshop, Ohio State University, USA

Other conferences attended

2024 Southeastern Probability Conference at UNC Chapel Hill, USA

2023 Southeastern Probability Conference at University of Virginia at Charlottesville, USA

2023 Southeastern Probability Conference at Duke University, USA

Reference information

1. Amarjit Budhiraja - budhiraj@email.unc.edu

2. Sayan Banerjee - sayan@email.unc.edu

3. Shankar Bhamidi - bhamidi@email.unc.edu

4. William Lassiter (teaching reference) - wlassite@email.unc.edu

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