Miheer Dewaskar

Contact Information

33305 McQueen Drive
Durham, NC 27705,
United States.

Phone: 919-564-9343
Email: miheer.dewaskar@duke.edu
Web: http://miheerdewaskar.com
GitHub: github.com/miheerdew

Education

University of North Carolina at Chapel Hill **May 2021**
Chapel Hill, North Carolina; United States.
Ph.D. Statistics and Operations research
Title: High-dimensional problems in statistics and probability: correlation mining and distributed load balancing
Advisors: Shankar Bhamidi, Amarjit Budhiraja, Andrew B. Nobel

Chennai Mathematical Institute **June 2016**
Chennai, India.
M.S. Computer Science

Chennai Mathematical Institute **June 2014**
Chennai, India.
B.S. (Hons) Mathematics and Computer Science

Professional Experience

Postdoctoral Associate at Duke University **June 2021 – present**
Advisor: David Dunson

Research Intern at INRIA Rennes **May 2015 – July 2015**
Advisors: Blaise Genest and Nathalie Bertrand

Research Interests

- Robust algorithms for machine learning and statistical inference
- Bayesian non-parametric methods
- Stochastic processes and their applications

Teaching Experience

Introduction to Statistics, Primary Instructor **Fall 2019**
University of North Carolina at Chapel Hill.

Mathematics of Regression, Primary Instructor **Fall 2023**
Duke University.

Softwares

Developed R/C++ package CBCE: software for detecting bimodules in multi-view data.
Programming languages: proficient in R, Python, and C++.

Honors and Awards

Cambanis-Hoeffding-Nicholson award, *STOR department, UNC Chapel Hill.* **2017**

Medal of Excellence, *Chennai Mathematical Institute.* **2016**

Charpak Scholarship, *Embassy of France in India.* **2015**

INSPIRE Scholarship, *Department of Science and Technology, India.* **2011**

Research Publications

Published

1 Bhamidi S, Budhiraja A, and **Dewaskar M**. "Near Equilibrium Fluctuations for Supermarket Models with Growing Choices." (2022) *Annals of Applied Probability VOL. 32 (NO. 3), 2083-2138.*

2 Goyal M, **Dewaskar M**, Duggirala PS, "NExG: Provable and Guided State Space Exploration of Neural Network Control Systems using Sensitivity Approximation" (2022) *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, doi: 10.1109/TCAD.2022.3197524.*

3 Bertrand N, **Dewaskar M**, Genest B, Gimbert H, and Godbole A. "Controlling a population." (2019) *Logical Methods in Computer Science*, Vol. 15, Issue 3.

4 Bertrand N, **Dewaskar M**, Genest B, Gimbert H "Controlling a population." (2017) *28th International Conference on Concurrency Theory (CONCUR 2017).*

Preprint/Under-review

1 **Dewaskar M**, Palowitch J, He M, Love M.I., Nobel A.B. "Finding Stable Groups of Cross-Correlated Features in Multi-View data". Under revision: *The Journal of Machine Learning Research.*

2 **Dewaskar M***, Tosh C*, Knoblauch J, Dunson D.B. "Robustifying likelihoods by optimistically re-weighting data". Submitted: *The Journal of American Statistical Association, Series B.*

3 Buch D, **Dewaskar M**, Dunson D.B. "Bayesian Level-set Clustering". In preparation.

Talks and Conferences

1 "Robustifying Likelihoods by Optimistically Re-weighting data", Presented poster at Joint Statistical Meeting, Toronto, August 2023.

2 "Robustifying Likelihoods by Optimistically Re-weighting data", Presented poster at discussion meeting on *Data Science: Probabilistic and Optimization methods* at International Center for Theoretical Sciences, July 2023.

3 "Robustifying Likelihoods by Optimistically Re-weighting data", Presented poster at ONR Program review workshop on Causal Inference and Machine Learning at Stanford University, April 2023.

4 "Independence, L_p spaces, and Expectation inequalities", Guest Lecture in Probability and Measure Theory, Fall 2022, Duke University.

5 "Finding stable groups of cross-correlated features in bi-view data," Speed Presentation and Poster at Joint Statistical Meetings, August 2022.

6 "Groupwise cross-correlation mining in bi-view data," Indian Institute of Science Education and Research, Pune, August 2022.

7 "Guided State-Space Exploration in Closed Loop Control Systems Using Sensitivity Approximation," Systems and Control Engineering, Indian Institute of Technology Bombay, July 2022.

8 "Finding significant communities in cross-correlation networks derived from multi-view data", SAMSI Seminars, January 2021.

9 "Near Equilibrium fluctuations for Supermarket models with growing choices," Bernoulli-IMS One World Symposium 2020, August 2020. (Online talk)

*last updated: August 6, 2023; *: joint first authors.*

Professional Activities

- **Memberships**: International Society for Bayesian Analysis
- **Service**: Reviewer for Mathematics of Operations Research (2023).
- **Outreach**: Judge for Duke Data Fest (2023), UNC Science Expo (2019)