

PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Ambuj Tewari, associate professor of statistics, with tenure, College of Literature, Science, and the Arts, and associate professor of electrical engineering and computer science, without tenure, College of Engineering, is recommended for promotion to professor of statistics, with tenure, College of Literature, Science, and the Arts, and professor of electrical engineering and computer science, without tenure, College of Engineering.

Academic Degrees:

Ph.D.	2007	University of California, Berkeley
M.A.	2005	University of California, Berkeley
B.Tech.	2002	Indian Institute of Technology, Kanpur

Professional Record:

2017–present	Associate Professor, Department of Statistics and Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor
2012–2017	Assistant Professor, Department of Statistics, University of Michigan
2010–2012	Post-doctoral Fellow, Institute of Computational Sciences and Engineering, University of Texas at Austin
2008–2010	Research Assistant Professor, Toyota Technological Institute, and Assistant Professor of Computer Science, University of Chicago

Summary of Evaluation:

Teaching: Since his last promotion, Professor Tewari has taught undergraduate and graduate courses in statistical computing, which are indispensable for both the statistics major and graduate programs. He is a popular teacher with consistently high student evaluations, well above the department average. He made a substantial contribution to the curriculum by developing a new undergraduate class on statistical computing in 2017. He supervises a large number of Ph.D. students and undergraduate research assistants, and serves as a faculty mentor at the UM Big Data Summer Institute, which is focused on undergraduates from underrepresented backgrounds.

Research: Professor Tewari is an internationally known leader in several areas of machine learning: supervised learning, sequential decision making, reinforcement learning, and applications to big, complex datasets, including mobile phone health interventions. He has recently started working on algorithmic fairness, an important emergent effort to mitigate bias in AI. He is very productive, publishing extensively in both competitive conferences and top journals, which is the standard for his field. He has an excellent funding record, with funding from the NSF, including a CAREER award, the NIH, and a Sloan Fellowship. We expect he will continue to stay on the forefront of important machine learning problems, make fundamental contributions, and maintain high funding levels.

Recent and Significant Publications:

Shirani Faradonbeh, M. K., Tewari, A., and Michailidis, G. (2021). Optimism-based adaptive regulation of linear-quadratic systems. *IEEE Transactions on Automatic Control*, <https://doi.org/10.1109/TAC.2020.2998952>.

Wong, K. C., Li, Z., and Tewari, A. (2020). Lasso guarantees for β -mixing heavy tailed time series. *Annals of Statistics*, 48(2), 1124-1142.

Nahum-Shani, I., Smith, S. N., Spring, B. J., Collins, L. M., Witkiewitz, K., Tewari, A., and Murphy, S. A. (2018). Just-in-time adaptive interventions (JITAI) in mobile health: Key components and design principles for ongoing health behavior support. *Annals of Behavioral Medicine*, 52(6), 446-462.

Natarajan, N., Dhillon, I. S., Ravikumar, P., and Tewari, A. (2018). Cost-sensitive learning with noisy labels. *Journal of Machine Learning Research*, 18(155), 1-33.

Service: Professor Tewari has served the profession extensively through editorial boards, conference program committees, and conference organizing. He has served on many major department committees such as curriculum and admissions, and he has committed to taking on the role of the director of the Master's in Data Science once the current director steps down. He has volunteered his time for multiple DEI efforts, including through the Big Data Summer Institute.

External Reviewers:

Reviewer (A): "I strongly support this promotion: Dr. Tewari is one of the strongest [of his generation] researchers world-wide working in the intersection of machine learning and statistics ... Ambuj is among the world's top theoretically-inclined machine learning researchers."

Reviewer (B): "Ambuj is truly a remarkably [sic] researcher and he would be a huge asset to any top statistics department. He is one of the top statistical machine learning theory research [sic] worldwide. I give my strongest support for his promotion to professor."

Reviewer (C): "Prof. Tewari is a well-respected and accomplished leader in the field of machine learning, and in particular at the intersection of machine learning and statistics. "

Reviewer (D): "Ambuj is a gifted researcher working at the interface between machine learning and statistics. I feel that, to a large extent, the future of our field depends on researchers working in this area and Ambuj is a leader in this effort."

Reviewer (E): "Ambuj's research is at the heart of modern machine learning and is focused on both fundamental theory and practical algorithms. His research is foundational, creative, and deeply impactful. His success in developing novel and creative perspectives on challenging problems and working as an active member of the statistics and machine learning communities all point to his continued success in his field. He has my strongest possible support for this promotion."

Reviewer (F): “Overall, I feel that Ambuj is well deserved [sic] for the promotion and his unique expertise and background are a valuable asset to Department of Statistics at University of Michigan in particular, and our statistics profession in general.”

Summary of Recommendation:

Professor Ambuj Tewari is an internationally recognized leader in machine learning and has earned worldwide respect from peers for his deep and innovative work and its interdisciplinary applications. He is an excellent teacher and advisor at all levels, and contributes generously through service to the profession and the department. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Ambuj Tewari be promoted to the rank of professor of statistics, with tenure, College of Literature, Science, and the Arts, and professor of electrical engineering and computer science, without tenure, College of Engineering.



Anne Curzan, Dean
Geneva Smitherman Collegiate Professor of
English Language and Literature, Linguistics,
and Education
Arthur F. Thurnau Professor
College of Literature, Science, and the Arts



Alec D. Gallimore, Ph.D.
Robert J. Vlasic Dean of Engineering
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