

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

Ji Zhu, 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.	2003	Stanford University
M.S.	2000	Stanford University
B.S.	1996	Peking University

Professional Record:

2010 – present	Associate Professor, Department of Electrical Engineering and Computer Science, College of Engineering
2008 – present	Associate Professor, Department of Statistics, University of Michigan
2003 – 2008	Assistant Professor, Department of Statistics, University of Michigan

Summary of Evaluation:

Teaching – Professor Zhu has taught applied statistics courses and he has developed an upper-level undergraduate and a doctoral-level course on statistical learning, which introduces some of the topics in the forefront of statistics today. Students give him ratings in the upper quartile. They enjoy his lectures and say he creates a learning environment in which everyone feels they can participate. Professor Zhu has supervised thirteen doctoral theses at Michigan and has seamlessly integrated his own research with that of his students' research. A substantial number of his papers are coauthored with students and a few were winning papers in student competitions.

Research – Professor Zhu is an influential researcher in statistical learning, high-dimensional data analysis, and their applications in bioinformatics and engineering. These relatively new and important areas encompass the majority of the frontier of statistics today. His scholarly contributions range from statistical theory, methodology, and algorithms to truly interdisciplinary applications. He has worked with researchers in other fields on financial data, gene expression data, study of bowel disease, and particle identification. Professor Zhu has published ten papers in top journals in 2010 alone. His funding record is equally solid, with a National Science Foundation CAREER award (2008-2011) and a National Institutes of Health grant.

Recent and Significant Publications:

“Joint estimation of multiple graphical models,” with J. Guo, et al., *Biometrika*, 98, 2011, pp. 1–15.
“Random lasso,” with S. Wang, et al. *Annals of Applied Statistics*, 5, 2011, pp. 468–485.
“Sparse multivariate regression with covariance estimation,” with A. Rothman and E. Levina, *Journal of Computational and Graphical Statistics*, 19(4), 2010, pp. 947-962.

Rothman, A., Levina, E. and Zhu, J. (2009). "Generalized thresholding of large covariance matrices," A. Rothman and E. Levina, *Journal of the American Statistical Association*, 104, 2009, pp. 177–186.

Service – Professor Zhu has participated in several committees in the Department of Statistics and is active in service to the profession. He has served as an associate editor for eight journals, including two of the top journals in his field. He was recently elected chair of the Statistical Learning and Data Mining Section of the American Statistical Association and now organizes activities to promote these fields.

External Reviews:

Reviewer (A)

"He has done an amazing amount of top-quality work in the last four years, and significantly broadened his range of activity within the profession. On all of the axes of contribution that I can evaluate, Dr. Zhu is truly outstanding. I am particularly impressed by the rapidly expanding scope of his research activity."

Reviewer (B)

"Ji Zhu is an internationally recognized leader in the area of statistical algorithms, statistical methodology for complex and massive data problems, high-dimensional statistical inference and machine learning. Through his interdisciplinary work, his impact is further increased, both in the fields of statistics and the subject areas of applications including genomics and empirical finance. His research is competitive at the highest level."

Reviewer (C)

"...[Zhu] is carrying out world-class research at an exceptional level, and is a leader in the area of high-dimensional statistical methodology. ...he has developed a broad and deep research program full of novel ideas, and communicated his work by publishing exclusively in the top journals... His statement on future research directions maps out areas that will have significant impact on both statistics and more broadly, on science."

Reviewer (D)

"Dr. Zhu is certainly at forefront of high-dimensional learning methodology and computing. His research findings have strong impact on contemporary statistical methods, computation, and theory, and their applications."

Reviewer (E)

"While his work is squarely in statistics, he is one of the leading researchers working at the interface of statistics and machine learning, where the latter is centered in the computer science community. ... All of Ji's work that I am familiar with is of very high quality. Many of his papers elicit a 'Gee, why didn't I think of that!' response, suggesting their naturalness and insight."

Reviewer (F)

"...he has made many path-breaking methodological contributions to the areas of statistical learning and analysis of high-dimensional data, including [an] impressive 39 journal publications

in statistical theory and methodology, most are in the top ranking statistical and machine learning journals.”

Reviewer (G)

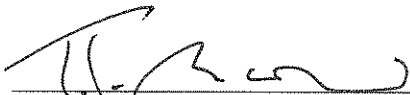
“Ji has an excellent track record in supervising PhD students. Several of his students who graduated are currently on [the] faculty in top biostatistics and statistics departments... Many of his students had their dissertation work published in top statistical journals. This is an excellent record for someone at his stage of career.”

Reviewer (H)

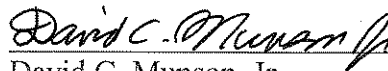
“He has compiled a terrific research record and his promotion should surely be a ‘no-brainer.’”

Summary of Recommendation:

Professor Zhu is a renowned researcher in his field. He is an exceptional teacher and has a very active service record. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Ji Zhu be promoted to the rank of professor of statistics, with tenure, in the College of Literature, Science, and the Arts, and professor of electrical engineering and computer science, without tenure, in the College of Engineering.



Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History, and Dean
College of Literature, Science, and the Arts



David C. Munson, Jr.
Robert J. Vlasic Dean of Engineering
College of Engineering

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