Approved by the Regents
May 17, 2018

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering
Department of Electrical Engineering and Computer Science

Clayton D. Scott, associate professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering, and associate professor of statistics, without tenure, Department of Statistics, College of Literature, Science, and the Arts, is recommended for promotion to professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering, and professor of statistics, without tenure, Department of Statistics, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2004	Rice University, Electrical Engineering, Houston, TX
M.S.	2000	Rice University, Electrical Engineering, Houston, TX
A.B.	1998	Harvard University, Mathematics, Cambridge, MA

Professional Record:

2012 – present	Associate Professor (with tenure), Department of Electrical Engineering and Computer Science, University of Michigan
2012 – present	Associate Professor (without tenure), Department of Statistics, University of Michigan
2009 – 2012	Assistant Professor, Department of Statistics, University of Michigan
2006 – 2012	Assistant Professor, Department of Electrical Engineering and Computer Science, University of Michigan
2004 – 2006	Post-doctoral Associate and Instructor, Department of Statistics, Rice University, Houston TX

Summary of Evaluation:

Teaching: Professor Scott has taught both graduate and undergraduate courses in the department with good student ratings. He is an effective and stimulating teacher and dedicated to continuously improving his teaching performance. He has taught three undergraduate courses and five graduate courses. In graduate courses, he has consistently very good student ratings as can be seen from Q1 and Q2 scores, which are well above 4 out of 5. Professor Scott has shown a lot of interest in improving the department curriculum both at the graduate level as well as the undergraduate level. He took the initiative to introduce a junior-level special topics course (EECS 398 Information Science) to expose undergraduates to the ubiquitous role that information science plays in our society. He is a good student mentor, very enthusiastic and always approachable by the students. He also has a good track record in advising his graduate students. He has provided an immersive and encouraging environment to the members of his research group.

Research: Professor Scott is a world-renowned scholar in statistical machine learning. He has made seminal contributions to supervised and unsupervised classification, anomaly detection, and the theory of surrogate functions for classification. His work is highly cited and he and his students have received awards for their notable research contributions. His publications and grant funding represent a healthy mix of collaborations with established international leaders in machine learning and applications, with UM faculty in medicine, engineering, and statistics, and with his graduate and undergraduate students. He has supervised or co-supervised eleven graduate students (eight doctoral and three masters) who have secured prestigious academic positions, or positions at renowned industry research laboratories. He has been the PI and co-PI on research grants from CDC, NSF, DHS, and NIH.

Recent and Significant Publications:

G. Blanchard, G. Handy, S. Pozzi, M. Flaska, C. Scott, "Classification with Asymmetric Label Noise: Consistency and Maximal Denoising," *Electronic Journal of Statistics*, 2016; 10(2): 2780-2824.

J. Kim, C. Scott, "Robust Kernel Density Estimation," *Journal of Machine Learning Research*, 2012; 13: 2529-2565.

G. Bellala, S. Bhavnani, C. Scott, "Group-based query learning for rapid diagnosis in time-critical situations," *IEEE Transactions on Information Theory*, 2012; 58(1) 459-478.

G. Blanchard, G. Lee, C. Scott, "Generalizing from Several Related Classification Tasks to a New Unlabeled Sample," Advances in Neural Information Processing Systems 24 (NIPS), 2011.

C. Scott, "Calibrated Asymmetric Surrogate Losses," *Electronic Journal of Statistics*, 2012; 6: 958-992.

Service: Professor Scott's service to the ECE Division and to the University of Michigan has been significant. His role in the signal processing area has grown since his previous promotion. He has been the graduate advisor for signal processing since 2013. He served on the ECE Executive Committee during 2014-15. He has been the chair of the signal processing area since 2016. He has also been providing a significant level of service to the profession. Since 2014, he has been an associate editor for the *IEEE Transactions on Pattern Analysis and Machine Intelligence* (PAMI), a top-tier journal in machine learning. He has also served as the area chair or member of the Senior Program Committee for leading conferences: Neural Information Processing Systems (NIPS) in 2015, and Association for Advancement of Artificial Intelligence (AAAI) in 2016 and 2017.

External Reviewers:

Reviewer A: "... Prof. Scott is doing very important research that is of the highest quality... Prof. Scott's research will also have powerful synergies with Michigan's new focus in data science as well as its established strengths in applications such as medicine."

Reviewer B: "Based on my knowledge of his work, I recommend Scott very strongly for promotion at the University of Michigan. If we were to see a case like his, I have no doubt he would be promoted at [my institution]."

Reviewer C: "Clearly, Professor Scott has established himself as a mature and high visible researcher with a body of research that is showing both breadth and depth."

Reviewer D: "Dr. Scott has an impressive research record. His work is very rigorous and of high quality. His work is highly relevant and of very high quality. He has a truly impressive record. I strongly support the case for promotion."

Reviewer E: "Clayton's case is very strong and solid on all the dimensions that matter. He is already a global name; he focuses on core and deep problems, and makes significant progress,..."

Reviewer F: "His research continues to be deep and substantive, with beautifully written papers and with a rich but laudably coherent set of related areas of focus."

Summary of Recommendation: Professor Scott has demonstrated excellence in foundational machine learning research, strong teaching of students inside and outside of the classroom, and a distinguished record of service to the statistical machine learning profession. It is with the support of the College of Engineering Executive Committee that I recommend Clayton D. Scott for promotion to professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering, and professor of statistics, without tenure, Department of Statistics, College of Literature, Science, and the Arts.

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

Andrew D. Martin, Dean
Professor of Political Science and Statistics
College of Literature, Science, and the Arts

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