

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

George Michailidis, 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:

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|-------|------|---------------------------------------|
| Ph.D. | 1996 | University of California, Los Angeles |
| M.A. | 1991 | University of California, Los Angeles |
| M.A. | 1990 | University of California, Los Angeles |
| B.S. | 1987 | University of Athens |

Professional Record:

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| 2007 – present | Associate Professor, Department of Electrical Engineering and Computer Science, University of Michigan |
| 2004 – present | Associate Professor, Department of Statistics, University of Michigan |
| 1993 – 2003 | Visiting Assistant Professor, Department of Statistics, University of Michigan |
| 1996 -1998 | Postdoctoral Fellow, Stanford University |

Summary of Evaluation:

Teaching – Professor Michailidis’ contributions to the teaching mission of the Department include developing new courses, redesigning existing courses, and serving as an advisor for the graduate program. Student ratings are consistently high. He has mentored two students through the Undergraduate Research Opportunities Program and the Summer Research Opportunity Program. Seven doctoral students have graduated under his supervision/co-supervision and he currently has six Ph.D. students. He has been graduate chair since 2006 and has streamlined the mentoring process, making it more responsive to the needs of students.

Research – Professor Michailidis has made very important contributions to multivariate data analysis as well as modeling, analysis, and control of networks. Since promotion to associate professor, he has published one book, 25 papers in refereed journals, eight articles in books and invited discussions, and nine conference papers. He has eleven papers currently under review. He is arguably the top in his age group working on the interface of statistics and information technology. His ability to network with researchers in other fields has resulted in an impressive array of interdisciplinary contributions.

Recent and Significant Publications:

“Graph based semi-supervised learning,” with M. Culp, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 30, 2008, pp. 174-179.

“Distributed multilevel modeling,” with D. Afshartous, *Journal of Computational and Graphical Statistics*, 16, 2007, pp. 901-924.

“Flexicast delay tomography,” with E. Lawrence and V. N. Nair, *Journal of the Royal Statistical Society, Series B*, 68, 206, pp. 785-814.

“Early events of Bacillus Anthracis germination identified by time course quantitative proteomics,” with P. Jagtap, et al., *Proteomics*, 6, 2006, pp. 5199-5211.

Service – Professor Michailidis’ record is very strong. He has served as graduate chair since 2006, chair of the Computing Committee for seven years, and is a member of the Computing, Executive, Graduate Admissions, Graduate Advising, Graduate Curriculum, and Qualifying Review Committees. He has also served on the Graduate Affairs Committee for the Bioinformatics Program. He is a member of the editorial boards of several leading journals and is very active in professional committees—on panels and organizing conferences.

External Reviewers:

Reviewer (A)

“...George has become a veritable powerhouse and one of the most versatile researchers in applied statistics as well as applied probability. The sheer amount of output he is producing these days is amazing and can partly be explained by his ability to leverage talented Ph.D. students and motivate them with good problems, a sign of a mature researcher. ... He has a unique skill set that makes him incomparable... ..he would be a tremendous asset to any statistics department.”

Reviewer (B)

“Dr. Michailidis is rather unique in the profession, as fewer recent academic researchers work in similar areas requiring deep understanding of the real-world engineering problems, theoretically sound but relevant solutions, and fruitful working relationship with collaborators. ...his publication record, funding track, professional service, broad network of collaboration, and educational contributions constitute an impressive accomplishment for any academic statistics researchers at his stage of career.”

Reviewer (C)

“I am struck by the depth of this work [in network tomography] and believe that it will have a lasting influence on how others approach these problems in the future. ...his work on the identifiability of flow distributions (to appear) provides the most thorough treatment of the conditions under which flow volumes in a network can be identified. ... Networking is a great application area for statistical techniques and Michailidis is doing some of the best work in this area today.”

Reviewer (D)

“...I like the array of different statistical problems that he has been studying. It reflects an important connection between statistical theory and modern engineering that is missing in many statistics departments, in my view. ... Regarding the quality of the work, it seems (as is sensible) largely driven by the desire to build practically useful and computationally feasible methods appropriate to the problem at hand.”

Reviewer (E)

“...George has an impressive series of papers investigating a novel class of queueing [sic] networks. ...George’s results [in network tomography] have provided a much deeper understanding of the fundamental trade-offs and limitations of network tomography methods. In addition, he has developed novel measurement and probing schemes that optimize the data collection process... Through this work, George has established himself as one of the leading researchers on the interface of statistics and networking.”

Reviewer (F)

“...George has continued on his excellent trajectory as a leading applied statistician of his age group. He has followed his vision of future statistics clear from his tenure review: a proper mix of interdisciplinary research and core research.”

Reviewer (G)

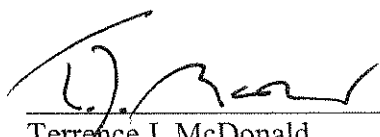
“I am impressed by the diversity of his research agenda and the quality of research contributions he has made, which are both intellectually deep and practically relevant. ...he is at the forefront of developing and applying ‘inverse problem’ statistical methodology to computer network modeling. ... Overall, I think that Prof. Michailidis’ research contributions are intellectually deep, well thought out, and will certainly have lasting impact.”

Reviewer (H)

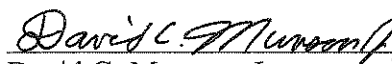
“...in reading through his CV, I am quite impressed in several respects. First his sheer number of publications per year puts [him] near the front of his cohort. Second, he publishes in an unusually wide array of journals (especially impressive in terms of the breadth of areas covered). ... Finally...it was interesting to see more breadth than I knew about, including proteomics (an advanced biological – medical research area) and machine learning. He is [a] true interdisciplinary scholar...”

Summary of Recommendation:

Professor Michailidis is one of the leading researchers in the areas of multivariate data analysis and modeling, analysis, and control of networks. He has made excellent contributions to the teaching mission of the College and has provided exemplary service. The Executive Committees of the College of Literature, Science, and the Arts and the College of Engineering, and we recommend that Associate Professor George Michailidis be promoted to 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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