

Technology, Operations and Statistics Department: Top Publication Venues

This version: August 2021

The faculty of the TOPS department belong to a rich and varied set of academic communities, spanning, among others, those within computer science, data science, economics, information systems, management, marketing, network science, operations management, operations research, optimization, sociology, and statistics. As a consequence, they publish their research in top-tier outlets of many disciplines.

Top-Tier Journals

Below, we summarize the journals that the TOPS department considers as top-tier for publication, listed alphabetically and organized by research area.

1. Artificial Intelligence, Data Science, and Machine Learning

- ACM Transactions on Information Systems
- ACM Transactions on Intelligent Systems and Technology
- Computational Linguistics
- Data Mining and Knowledge Discovery
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Pattern Recognition and Machine Intelligence
- Journal of Artificial Intelligence Research
- Journal of Machine Learning Research
- Machine Learning
- SIAM Journal on the Mathematics of Data Science
- Transactions of the Association for Computational Linguistics

2. Information Systems

- Information Systems Research
- MIS Quarterly

3. Operations

- Manufacturing & Service Operations Management
- Mathematics of Operations Research
- Operations Research
- Production and Operations Management

4. Statistics

- Annals of Statistics
- Annals of Applied Statistics

Biometrika
Journal of the American Statistical Association
Journal of the Royal Statistical Society, Series B

5. Interdisciplinary/Cross-Cutting

Management Science
Nature
Proceedings of the National Academy of Sciences
Science

Specialized high-impact journals

TOPs faculty often aspire to publish their work in journals other than those identified in (1-5) above for greater scholarly impact. Following the suggestion of several faculty, we agreed that the department list should include journals chosen for the purpose of being high impact outlets within specific scientific communities that are important to some of the TOPs faculty. Below, we summarize these journals, listed alphabetically and organized by the research area.

Econometrics

Econometric Theory
Journal of Business & Economic Statistics
Journal of Econometrics

Economics of Information Systems

Journal of Management Information Systems

Financial Mathematics

Finance and Stochastics
Mathematical Finance
Mathematics and Financial Economics
SIAM Journal on Control and Optimization

Information and Control Theory

IEEE Transactions on Automatic Control
IEEE Transactions on Information Theory

Management and Policy

Research Policy

Network Science

Network Science
PLOS One
Social Networks

Optimization

Mathematical Programming
SIAM Journal on Optimization

Qualitative Behavioral Information Systems

Information and Organization

Sociology

American Journal of Sociology

Statistics and Probability

Annales de l'Institut Henri Poincare
Electronic Journal of Statistics
Journal of Computational and Graphical Statistics
Journal of Time Series Analysis
Probability Theory and Related Fields
Statistica Sinica
Stochastic Processes and their Applications

Stochastic Modeling and Applied Probability

Annals of Applied Probability
Stochastic Systems

Technical Information Systems

ACM Transactions on Management Information Systems
Big Data (research articles)
Communications of the ACM (research articles)
INFORMS Journal on Computing

Faculty are expected to choose their mix of outlets between top-tier journals and specialized high-impact journals judiciously, keeping in mind, for example, that a faculty member is benchmarked relative to peers, the majority of whom might be in other business schools, when being assessed for promotion

We used the following process to create the above list of journals: The faculty of the three groups in the department had internal discussions within each of their groups to generate a list of journals that could be considered reasonable candidates. The TOPS Executive Committee then discussed these journals, taking into account various numerical measures of impact (Impact Factor, Normalized Eigenfactor, Normalized Eigenfactor Percentile, Article Influence and Article Influence Percentile) and created the final list.

Other business disciplines

The TOPS faculty considers as top-tier any journal identified by the Stern **Accounting, Economics, Finance, Management, and Marketing** departments as being top-tier.

Top Conferences

The research of many TOPS faculty, and especially tech-oriented junior faculty, falls into the category that the National Research Council described in its published report entitled *Academic Careers for Experimental Computer Scientists and Engineers (ECSE)*¹. The report states that "Because conferences are the vehicle of choice in ECSE for the dissemination of research, well-refereed conference proceedings ... should be given as much weight as archival journal articles in evaluating a candidate's research portfolio for promotion or tenure" (p. 106). The report also shows that conference papers are more highly cited, that top journals and top conferences are equally selective, and that the very best conferences sometimes are even more selective.

Below, we summarize the conference proceedings considered top-tier for publication by the TOPS faculty:

Artificial Intelligence and Machine Learning

- Association for Advancement of Artificial Intelligence (AAAI)
- International Conference on Learning Representation (ICLR)
- International Conference on Machine Learning (ICML)
- International Joint Conferences on Artificial Intelligence (IJCAI)
- Neural Information Processing Systems (NeurIPS)
- The Society for AI and Statistics (AISTATS)

Data Mining

- ACM International Conference on Web Search and Data Mining (WSDM)
- ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)
- The Web Conference (WWW)

¹ National Research Council. 1994. *Academic Careers for Experimental Computer Scientists and Engineers*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/2236>

Natural Language Processing (NLP)

Annual Meeting of the Association for Computational Linguistics (ACL)
Conference on Empirical Methods in Natural Language Processing (EMNLP)
North American Chapter of the Association for Computing Linguistics (NAACL)

Theory (Computer Science and Operations Research)

ACM-SIAM Symposium on Discrete Algorithms (SODA)
ACM Symposium on Theory of Computing (STOC)
Conference on Learning Theory (COLT)
Foundations of Computer Science (FOCS)
SIGMETRICS

Others

ACM Conference on Economics and Computation (EC)
ACM SIGMOD/PODS Conference (SIGMOD)
ACM Computer Human Interaction Conference (CHI)
International Conference on Very Large Data Bases (VLDB)

We used the following process to create the above list of top conference outlets: We identified areas of computer science that we consider most relevant to business school research for the next few years, and that include Artificial Intelligence and Machine Learning, Data Mining, Theory (Computer Science/Operations Research), and Natural Language Processing (NLP). Each of these areas have gained recent significance in business practice. Within each area, we identified a maximum of five conferences that are generally regarded as the best, using input from faculty within TOpS who conduct research in these areas, other reputational signals, selectivity and impact measures, and rankings by independent online outlets²³ that maintain lists of what are considered top conferences.

It may help to note that if one wishes to count publications, journal publication totals cannot simply be added to the conference publication totals. Journal papers often contain work from prior conference papers. This is completely acceptable so long as the journal paper makes a substantial additional contribution; however, each paper does not necessarily contain a "whole journal paper's worth" of additional contribution (some do, some do not). Generally, a candidate's CV should be annotated to show which conference papers have work overlapping in journal papers.

² <http://csrankings.org/>

³ https://www.aminer.org/ranks/conf?category_type=ccf&category=All&category_en=All&type=C