



Association for
Computing Machinery

NEWS RELEASE

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ACM Launches New Journal on Probabilistic Machine Learning

ACM TOPML Now Accepting Submissions

New York, NY, July 12, 2023 – ACM, the Association for Computing Machinery, announced it is now accepting submissions for a new Gold Open Access journal, [ACM Transactions on Probabilistic Machine Learning](#) (TOPML).

TOPML will publish research articles on probabilistic methods that learn from data to improve performance on decision-making or prediction tasks under uncertainty. Optimization, decision-theoretic, or information-theoretic methods are within the remit if they are underpinned by a probabilistic structure. Probabilistic methods may be harnessed to address questions related to statistical inference, uncertainty quantification, predictive calibration, data generation and sampling, causal inference, stability, and scalability.

The *ACM Transactions on Probabilistic Machine Learning* (TOPML) is now accepting contributions in the following areas:

- Theoretical, methodological, and applied contributions
- Theoretical contributions that introduce novel methodology
- Methodological and applied contributions that include proposed probabilistic approaches, which are motivated and empirically corroborated by non-trivial examples or applications
- Multidisciplinary approaches with a probabilistic structure are within the scope

“Probabilistic modeling is an essential component of machine learning and optimizing existing models, or sharing new approaches to improving decision-making tasks,” explained TOPML Co-Editor-in-Chief (Co-EiC) Wray Buntine, Professor of Computer Science at VinUniversity, Hanoi, Vietnam. “Machine learning researchers must be at the forefront of discovery and improvements, and this new ACM journal

provides an ideal platform for the sharing of those ideas.” Buntine also previously led the Machine Learning Group at Monash University, Melbourne, Australia.

“Our goal for TOPML is that it will attract contributions that support the advancement of ethical considerations of probabilistic machine learning, such as data privacy and fairness, which is receiving a lot of attention at the moment,” added Fang Liu, Co-EiC, Professor in Applied and Computational Mathematics and Statistics at the University of Notre Dame, Indiana. Liu is an elected fellow of the American Statistical Association.

“Collaboration with our global colleagues to address research questions in high-dimensional settings will render deep learning and other contemporary machine learning models more amenable to uncertainty quantification and interpretation,” concluded Co-EiC Theodore Papamarkou, Reader in the Mathematics of Data Science at the University of Manchester, UK.

The first issue of TOPML is slated to be published in 2024. In addition to joint EiCs Buntine, Liu, and Papamarkou, the TOPML advisory team includes six Senior Advisory Editors, a Social Media Editor, 62 Senior Associate Editors, and 111 Editorial Board Members. Reflecting ACM’s global membership, the TOPML editorial team is made up of professionals working in countries including Australia, Canada, China, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Poland, Saudi Arabia, Singapore, South Africa, Sweden, Switzerland, the United Kingdom, the United States, and Vietnam.

About ACM

[ACM, the Association for Computing Machinery](#), is the world’s largest educational and scientific computing society, uniting computing educators, researchers, and professionals to inspire dialogue, share resources, and address the field’s challenges. ACM strengthens the computing profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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