

SIAM News Blog

## SIAM Celebrates Mathematics and Statistics Awareness Month 2025

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Each year, the Joint Policy Board for Mathematics—a collaboration between SIAM, the American Mathematical Society, the American Statistical Association, and the Mathematical Association of America—holds a month-long celebration for Mathematics and Statistics Awareness Month to enhance public understanding and appreciation of mathematics and statistics.

Mathematical and statistical research drives technological innovation and leads to discoveries of broad societal importance across many scientific fields. Throughout the month of April, universities, high schools, student groups, research institutions, public information offices, and other related organizations host math-related workshops, competitions, lectures, and other activities. We encourage you to join the celebration and share your math-related festivities using the hashtag #MathStatMonth on social media.

To mark Mathematics and Statistics Awareness Month, SIAM is highlighting members of our community, featuring [Dr. Orly Alter](#) and Dr. Katarzyna Świrydowicz.

### Orly Alter

Dr. Orly Alter earned her Ph.D. in applied physics from Stanford University (1999), where her work contributed to gravitational wave detection and quantum computing. During her postdoctoral fellowship at Stanford’s School of Medicine, she invented the pioneering concept of the "eigengene," a key innovation in genomic data analysis, earning recognition as one of the top 50 most cited *Proceedings of the National Academy of Sciences* papers of all time. She later joined the University of Texas at Austin, where she developed mathematical and computational physics approaches for analyzing large-scale biological data, before moving to Utah. She is currently a Utah Science, Technology, and Research (USTAR) Associate Professor of Bioengineering and Human Genetics at the Scientific Computing and Imaging (SCI) Institute and Huntsman Cancer Institute, University of Utah. She is also the Chief Scientific Officer and co-founder of Prism AI Therapeutics, Inc. and serves as a scientific advisory board member for the NCI-DOE Cancer Moonshot collaboration.

Dr. Alter’s research focuses on developing quantum mechanics-based multi-tensor AI/ML methods to identify clinically actionable, mechanistically interpretable predictors from high-dimensional multi-omic data. Her work has been supported with grants by the National Science Foundation, the National Institutes of Health, and the Department of Energy. Among her many honors, she was a 2014 American Association of Physicists in Medicine Science Council Session Winner Lecture awardee, a 2005 International Linear Algebra Society Linear Algebra and Its Application Lecturer, and a finalist for the 1998 American Physical Society Outstanding Doctoral Thesis Research in Atomic, Molecular, or Optical Physics Award. [Learn more about Dr. Alter](#).

Dr. Alter has been a member of SIAM for 22 years, attending, presenting, and chairing multi-session minisymposia at several SIAM conferences including the [2018 SIAM Conference on Applied Linear Algebra](#). Recently, she served as an organizing committee member and panel moderator of the [2025 SIAM Conference on Computational Science and Engineering](#).

[Watch the video below to learn more about Dr. Alter’s career and her advice to early career professionals.](#)



MATHEMATICS AND STATISTICS AWARENESS MONTH