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2025 International Prize in Statistics winner

The International Prize in Statistics Foundation has awarded **Grace Wahba** the 2025 prize in recognition of her groundbreaking work on smoothing splines, which has transformed modern data analysis and machine learning.

Professor Wahba was among the earliest to pioneer the use of nonparametric regression modeling. Recent advances in computing and availability of large data sets have further popularized these models, especially under the guise of machine learning algorithms such as gradient boosting and neural networks. Nevertheless, the use of smoothing splines remains a mainstay of nonparametric regression.

Grace Wahba

Wahba earned her PhD in statistics from Stanford University in 1966 and joined the University of Wisconsin–Madison in 1967 as the first female faculty member in the department of statistics. She remained there for 51 years, before retiring in 2018 as I.J. Schoenberg-Hilldale Professor Emerita.

In seminal research that began in the early 1970s, Wahba developed theoretical foundations and computational algorithms for fitting smoothing splines to noisy data. Her sustained contributions led to a rigorous mathematical framework and practical techniques for extracting meaningful patterns from imperfect observations, a challenge that lies at the heart of statistical analysis.

Her joint work on reproducing kernel Hilbert spaces (RKHS) and the famous "Representer Theorem" showed that optimizing functions over infinite-dimensional spaces could be reduced to finite-dimensional problems, making previously intractable computations feasible. She also developed "generalized cross-validation" (GCV), a regularization method now widely used for automatically selecting optimal smoothing parameters, solving a critical practical problem in data analysis.

"Grace Wahba's contributions have had a profound and lasting impact on statistical methodology and practice," said Jessica Utts, chair of the International Prize in Statistics Foundation. "Her early insights into regularization and smoothing have become essential tools used daily by statisticians and data scientists working across nearly every scientific field."

Often called "the mother of smoothing splines," Professor Wahba was practicing data science before the term was even anticipated. Her work has seen practical

IMS Bulletin

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IMS Members' News

IMS Tweedie New Researcher Award winner

Bingxin Zhao

The winner of this year's IMS Tweedie New Researcher Award is **Bingxin Zhao**, assistant professor in Statistics and Data Science at the Wharton School of the University of Pennsylvania. The citation reads, *"For seminal contributions to imaging genetics in neuroscience and genetics and for significant theoretical contributions to statistical genetics, particularly in the development of methods for polygenic risk score (PRS) prediction, cross-trait genetic analysis, linkage disequilibrium score regression (LDSC), and trans-ancestry genetic correlation estimation."*

On receiving the news of his award, Dr. Zhao said, "I'm deeply honored. This recognition means a lot to me, and I am incredibly grateful to my family, mentors, collaborators, colleagues, and students whose support has been invaluable throughout my academic journey. I look forward to continuing to contribute at the intersection of statistics, data science, and biomedical research to advance both methodology and impactful applications."

Dr. Zhao's research focuses on developing and applying statistical and computational methods for science and medicine, particularly in analyzing large-scale complex data, including imaging, genomics, and biomedical knowledge graphs. He describes himself as "passionate about integrating statistics and software engineering to automate data analysis in scientific research." His work has contributed to the understanding of the human brain, inter-organ connections (such as heart–brain links) and their implications for mental health and brain disorders, as well as the development of cloud computing ecosystems in genetics and precision medicine.

Bingxin Zhao received his PhD in Biostatistics from the University of North Carolina at Chapel Hill (UNC–CH) in 2020. Prior to that his Master's was in Biostatistics from the University of Florida (2016), and Bachelor's in History and in Mathematical Statistics from Xiamen University in 2014. He was an assistant professor at Purdue University in 2020–22 before moving to the Wharton School. Dr. Zhao has already received several other awards and honors. These include the ICSA Outstanding Young Researcher Award (2024); the Department of Biostatistics at the University of Florida's Outstanding Alumni Award (2024) and Outstanding Graduate Student award (2016); two awards for his dissertation from UNC–CH in 2022; and the ENAR Distinguished Student Paper Award (2020).

Dr. Zhao's PhD supervisor, Dr. Hongtu Zhu, professor in the Department of Biostatistics at UNC–CH, describes him as "an outstanding statistician whose work in imaging genetics, statistical genetics, and neuroscience has already made a significant impact. Dr. Zhao has led multiple high-impact projects, publishing first-author papers in *Science*, *Nature Genetics*, and *Molecular Psychiatry*, while also developing the Imaging Genetics Knowledge Portal (https://bigkp.org), a transformative platform for genetic research. His contributions to mathematical statistics, including advancements in polygenic risk score prediction, cross-trait genetic analysis, and high-dimensional inference, demonstrate strong potential for continued impact in the field."

The Tweedie Award honors the memory of Richard Lewis Tweedie (1947–2001), who played a significant role throughout his professional career in mentoring young colleagues at work and through professional society activities. The award funds travel to present the Tweedie New Researcher Invited Lecture at the IMS New Researchers Conference. This year's NRC will take place July 31–August 2: https://nrc2025.github.io/

More IMS Members' News

Michael Jordan awarded BBVA Foundation Frontiers of Knowledge Award

The 17th BBVA Foundation Frontiers of Knowledge Award in Information and Communication Technologies has been awarded jointly to IMS Fellow **Michael I. Jordan** (University of California, Berkeley, and National Institute for Research in Digital Science and Technology, INRIA, Paris) and to **Anil Jain** (Michigan State University), for what the committee refers to as their "core contributions" to machine learning, which have unlocked "applications of far-reaching impact on society." Their contributions have left "an indelible stamp on the fabric of today's—and tomorrow's—information-rich society."

Over the last four decades, the two awardees have made vital contributions enabling computers to recognize patterns and generate predictions from large-dimension data sets, powering the advance of such transformative technologies as biometrics and AI.

Jain's research has focused on pattern recognition, leading to "monumental contributions"—in the words of the committee—in recognizing people through fingerprints or face ID, with technologies that are now massively deployed in the security domain, both in criminal investigations and for accessing mobile phones and other electronic devices.

In parallel, Jordan's independent efforts in the machine learning field "provided unified algorithms for statistical and probabilistic inference," said the committee, "enabling computers to make accurate predictions from observed data." His achievements laid the mathematical foundations for generative AI models such as those powering ChatGPT, and the development of recommender systems like Amazon's, that inform the economic decision-making of both consumers and businesses.
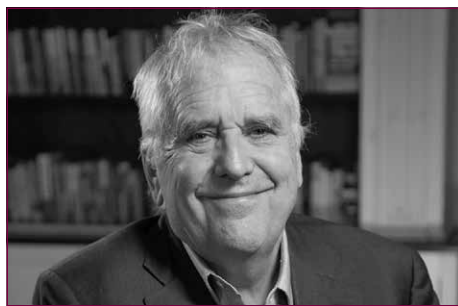
IMS Fellow Michael I. Jordan, one of the winners

Michael I. Jordan began his research career looking at the models used to establish probabilistic relations between different variables, which are a key component of text and image analysis and recommendation systems. In the 1990s, he was at the forefront of the development of variational inference models, able to approximate the solution to a mathematical problem that is not solvable with available computational resources, by reducing it to an optimization problem. This technique is a core component of machine learning, particularly deep learning applications like generative AI. Later, Jordan turned to multiplying the possibilities of machine learning by running programs on hundreds or thousands of computers instead of just one. The algorithms he devised to enable such large-scale distributed computing led to the setup of the company Anyscale, whose Ray platform is the basis for ChatGPT, numerous e-commerce firms and many other deep learning applications.

Among Jordan's more recent interests has been the application of machine learning to economics. In contexts where multiple actors are entrusting decisions to the same system, recommender systems must be able to adapt to avoid congestion. For instance, a GPS app being used in a town with hundreds of thousands of inhabitants could recommend the same route to the airport to a thousand users at once, causing traffic hold-ups. Jordan is working to develop machine learning systems that overcome this problem.

Read more at https://www.frontiersofknowledgeawards-fbbva.es/noticias/frontiers-of-knowledge-award-17th-edition-information-communication-technologies/

⌨ = access published papers online

IMS Journals and Publications

Annals of Statistics: Hans-Georg Müller, Harrison Zhou **UPDATED**
　https://imstat.org/aos
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Annals of Applied Statistics: Lexin Li **UPDATED**
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Annals of Probability: Paul Bourgade & Julien Dubedat
　https://imstat.org/aop
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Annals of Applied Probability: Jian Ding, Claudio Landim **UPDATED**
　https://imstat.org/aap
　⌨ https://projecteuclid.org/aoap

Statistical Science: Moulinath Bannerjee
　https://imstat.org/sts
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IMS Collections
　⌨ https://projecteuclid.org/imsc

IMS Monographs and *IMS Textbooks:* Yingying Fan
　https://www.imstat.org/journals-and-publications/ims-monographs/

IMS Co-sponsored Journals and Publications

ACM/IMS Journal of Data Science: Jelena Bradic, Stratos Idreos, Barbara Engelhardt: ⌨ https://jds.acm.org/

Electronic Journal of Statistics: Alexandra Carpentier & Arnak Dalalyan: ⌨ https://projecteuclid.org/ejs **UPDATED**

Electronic Journal of Probability: Cristina Toninelli
　⌨ https://projecteuclid.org/euclid.ejp

Electronic Communications in Probability: Patrícia Gonçalves
　⌨ https://projecteuclid.org/euclid.ecp

Journal of Computational and Graphical Statistics: Yuguo Chen, Laura M. Sangalli https://www.amstat.org/ASA/Publications/Journals.aspx **UPDATED**
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Probability Surveys: Adam Jakubowski
　https://imstat.org/ps
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Statistics Surveys: Yingying Fan
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IMS-Supported Journals

ALEA: Latin American Journal of Probability and Statistics: Víctor Rivero **UPDATED**
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
Annales de l'Institut Henri Poincaré (B): Giambattista Giacomin, Yueyun Hu:
　https://imstat.org/aihp
　⌨ https://projecteuclid.org/aihp

Bayesian Analysis: Igor Prünster **UPDATED**
　⌨ https://projecteuclid.org/euclid.ba

Bernoulli: Kengo Kato **UPDATED**
　⌨ https://projecteuclid.org/bj

Brazilian Journal of Probability and Statistics: Francisco José A. Cysneiros: https://imstat.org/bjps
　⌨ https://projecteuclid.org/bjps

IMS-Affiliated Journals

Observational Studies: Nandita Mitra
　⌨ https://obs.pennpress.org/

Probability and Mathematical Statistics: Krzysztof Bogdan, Krzysztof Dębicki
　⌨ http://www.math.uni.wroc.pl/~pms/

Stochastic Systems: Devavrat Shah
　⌨ https://pubsonline.informs.org/journal/stsy

International Prize 2025 *continued from cover*

applications in fields ranging from climate science to medical imaging. Her techniques have been used to analyze spatial patterns in global temperature data, predict disease risk factors, and enhance image reconstruction in various medical contexts.

Wahba's work has also been recognized as foundational in modern machine learning. Her methods form a pillar of contemporary artificial intelligence and were instrumental in the development of popular kernel-based algorithms such as support vector machines.

"Grace has been an inspiration and a role model to me ever since I first met her 50 years ago," said Sir Bernard Silverman, past president of the Royal Statistical Society and Institute of Mathematical Statistics. "She was one of the pioneers of genuinely applicable computational statistics and always spent time talking to people in applied fields, as well as in statistics."

"I can remember visiting her in the 1970s and, each week, she would go off to a 'liver lunch,' which was not the menu but the topic of medical research in which she was collaborating at the time," Silverman recalled. "She knew, and demonstrated to her graduate students and collaborators, that the only way to do proper interdisciplinary work was to get a proper understanding of the substantive field."

In addition to her stellar research contributions, Wahba has been a mentor and role model for women in mathematics and statistics throughout her career. She has advised numerous PhD students who have gone on to become leading figures in the field, with several department chairs and one member of the National Academy of Sciences among her academic descendants.

Wahba's achievements have been recognized with numerous honors, including membership in the National Academy of Sciences and American Academy of Arts and Sciences. In 2021, the Institute of Mathematical Statistics established the Grace Wahba Award and Lecture in her honor.

The International Prize in Statistics is awarded every two years by a collaboration among five leading international statistics organizations. The prize recognizes a major achievement by an individual or team in the statistics field, particularly an achievement of powerful and original ideas that has led to practical applications and breakthroughs in other disciplines.

Professor Wahba will receive the prize, which includes an $80,000 award, in October 2025 at the World Statistics Congress, organized by the International Statistical Institute.

US National Medal of Science

On January 3, 2025, former US President Biden announced the latest recipients of the National Medal of Science, America's highest honor for exemplary achievement and leadership in science and technology. Among the medal winners was IMS Fellow **Emery Neal Brown**.

Emery Brown is the Edward Hood Taplin Professor of Medical Engineering and professor of computational neuroscience at Massachusetts Institute of Technology. He is the Warren M. Zapol Professor of Anaesthesia at Harvard Medical School and Massachusetts General Hospital (MGH), and an anesthesiologist at MGH. Brown received his BA (magna cum laude) in Applied Mathematics from Harvard College, his MA and PhD in statistics from Harvard University, and his MD (magna

cum laude) from Harvard Medical School. Brown is an anesthesiologist-statistician recognized for developing signal processing algorithms for neuroscience data analysis and for defining the neurophysiological mechanisms of general anesthesia. Brown has received an NIH Director's Pioneer Award, the National Institute of Statistical Sciences Sacks Award and the American Society of Anesthesiologists Excellence in Research Award. He is a fellow of the IEEE, the AAAS, the American Academy of Arts and Sciences and the National Academy of Inventors. Brown is a member of all three US National Academies: of Medicine, of Sciences and of Engineering.

Read more at https://www.nasonline. org/directory-entry/emery-neal-brown- gdjast/

Also awarded the National Medal of Science in the same cohort were **Ingrid Daubechies** and **Cynthia Dwork**, both well known in our field.

Paul Shaman, 1940–2025

We have just learned of the peaceful passing on March 19 of Paul Shaman, Emeritus Professor of Statistics at the Wharton School, University of Pennsylvania. Paul received the IMS Carver Medal in 2004 for his long service as Managing Editor. He was instrumental in creating and maintaining the IMS Scientific Legacy Database, and served on the Memorials Committee for the past 15 years. An obituary is in preparation.

Inaugural David Cox Medal for Statistics

Three leading mid-career statisticians have been announced as winners of the David Cox Medal for Statistics,

The David Cox Medal for Statistics: 2025 Winners

Richard Samworth   Eric Tchetgen Tchetgen   Nancy Zhang

awarded for the first time in 2025 to commemorate the work of the late world-leading statistician and former IMS president, Sir David Cox.

The three winners are **Eric Tchetgen Tchetgen** of the University of Pennsylvania for his work improving our understanding of causal inference, **Nancy Zhang** also of the University of Pennsylvania for her contributions to statistical genomics and its application in biomedical research and **Richard Samworth** of the University of Cambridge for contributions to methodological and theoretical statistics.

Each recipient is a leader in their field. Among Prof. Tchetgen Tchetgen's contributions is the development of Proximal Causal Inference and instrumental variable methodology, while Prof. Zhang has advanced the analysis of high-dimensional biological data and aided understanding of cancer genome evolution. Prof. Samworth has made numerous contributions to the areas which have been of the most focus for statistics over the past decades, including shape-constrained modelling and change-point analysis.

The international prize was established to recognize researchers in the fields of statistical theory, methodology and applications whose work is original, with conceptual depth and novelty, and which moves the field or a substantive application area forward. It celebrates mid-career researchers, as Sir David Cox published his seminal paper on regression models in the *RSS Series B* journal, aged 48. The medal is awarded jointly by the Royal Statistical Society, the American Statistical Association, the Bernoulli Society, the International Biometric Society, the Institute of Mathematical Statistics and the International Statistical Institute.

Professor Peter McCullagh, chair of the Prize Committee said: "Sir David Cox's work led to great advancements in the field, so it feels fitting to celebrate those carrying on his great work in moving the profession and our understanding of statistics forward. Eric, Nancy and Richard are to be wholeheartedly congratulated for their contributions that have reshaped our understanding across the discipline."

Further information about the medal can be found on the RSS website: https://rss.org.uk/training-events/events/honours/david-cox-medal/

The full citations for each recipient are as follows:

Richard Samworth – Statistical Theory. Professor Richard Samworth, FRS, is awarded the David Cox Medal for Statistics for his outstanding contributions to methodological and theoretical statistics. Richard has made numerous seminal contributions including to shape-constrained modelling, high dimensional statistics, change-point analysis and nonparametric classification. These important and broad areas of statistical science encompass the majority of the prevailing topics where statistics has focussed over the past two decades, and Richard has been at the forefront from the outset. In addition to his stellar research contributions, Richard has mentored with distinction many students and young researchers, as well as serving the profession tirelessly through journal editorships and other contributions to multiple statistical societies.

Eric Tchetgen Tchetgen – Statistical Methodology. Professor Eric Tchetgen Tchetgen is awarded the David Cox Medal for Statistics for his outstanding contributions to the development of pioneering statistical theory and methods that have reshaped our understanding and practice of causal inference. Eric's noteworthy contributions recognised by this award include the development of Proximal Causal Inference and groundbreaking contributions to instrumental variable methodology, two fundamental analytic frameworks for credible causal inference in the face of intractable confounding. Beyond his groundbreaking works on proximal inference and instrumental variables, Eric has made seminal contributions to multiple other areas, including interference, mediation analysis, missing data, conformal inference, survival analysis, higher order influence functions, and data fusion.

Nancy Zhang – Statistical Application. Professor Nancy Ruonan Zhang is awarded the David Cox Medal for Statistics for her pioneering contributions to statistical genomics, particularly in cancer and single-cell genomics and their applications in biomedical research. Her work has advanced the analysis of high-dimensional biological data through the development of methods for change-point detection and false positive control, noise reduction in single-cell RNA sequencing, single cell and spatial omic data integration, and cell type deconvolution in bulk tissue analysis. She has also made significant contributions to understanding cancer genome evolution through the development of allele-specific DNA copy number estimation methods that reveal intratumor heterogeneity. Through these contributions, Nancy has demonstrated exceptional leadership in bridging statistical innovation with real-world biomedical challenges, significantly influencing both the statistical and life sciences communities.

Radu's Rides: **The Mighty Nod**

I still remember my first conference. I was an inexperienced graduate student with some vague idea about conferences as mediums for exchanging ideas, making friends, and creating networks of like-minded individuals. Alas, none of these beautiful things come easily to neophytes. Just like one can easily separate the tourists from the locals in a beautiful Tuscan village, so green students stand out from the experienced ones. Besides experience, other criteria helped with the clustering and classification. Large departments tend to send larger groups of students at conferences, making us all realize that the size of one's clique matters. Since no coin has only one side, later in my career I realized that the disadvantage comes from having to stand out from the group, which is a lot easier when the latter has size one. Nevertheless, at that initial dip into scientific socialization I was enviously eyeing the senior students who had stories, sometimes also known as gossip, to which even faculty paid attention. Initially, it is harder to separate the social component from the scientific one, but for those students reading this, please be assured that the latter dominates the former.

Conferences can be a fertile ground for a student's imposter syndrome, especially when the ideas they are promoting are not bringing anyone to tears (of joy, evidently). It took me a while to realize that not eliciting an immediate reaction can also be a good thing, perhaps suggesting that the audience found the idea interesting enough to not eviscerate it on the spot. I also learned, in time, that having a nice idea is not enough to impress, and one must repeat the feat a few times before people start to pay attention to you, as you're standing in a corner, drenched in unjustifiable sweat while smiling at your shoes.

It is hard to say if getting visibility at an international conference is more difficult these days. On the one hand, there are so many more shiny new things, moving a lot more quickly in the limelight, so that registering on anyone's radar takes a longer sustained effort. On the other hand, the discipline has grown immensely and so have the numbers and sizes of the various scientific communities within, each with their own leaders, upcoming stars, and scientific gatherings.

I wish I had known back then that finding someone you can talk to at a conference is a gift not a given, one that should be cherished and certainly never taken for granted. Of course, having someone to talk to brings up the question of what to talk about. One is tempted to talk shop, and by that I mean research ideas, but wary of giving away too much information—we've all heard stories of getting scooped—and afraid that too deep a conversation about student life and its trappings can be a buzz-kill. Again, it takes time, patience, perhaps even some bad experiences, before one can reach the right tone for such professional exchanges. In time, a friendship may flourish, but that's not something that one can plan or count on, just like in "civilian" life.

One may wonder why, especially at the beginning of a career, we insist on participating in conferences where no one knows us. I dare conjecture that it is not a hunger for humbling punishment that pushes us forward, but the aspirational aim of belonging to a community of people we admire and whose respect we seek. Because it is one thing to work alone in your office with the only recognition being provided by referee reports, and another to be approached after your conference talk by someone who is even more excited about the work than you.

All of which brings me to the first time my presence was acknowledged: by a simple, yet mighty, nod. This marked some sort of phase transition, as soon afterwards someone talked to me about something other than me being in the way. As a kid I had dreamed of being the Invisible Man, and now I was celebrating having the opposite superpower.

After that milestone, my professional travels and encounters brought many joys, some anxiety, even perplexing moments, but never boredom. That nod cemented my belief in the power of having a community of individuals with whom one can share ideas, principles and comforting thoughts. It gave me the opportunity to talk to young people eager to be recognized, as well as to legends of our field who made me feel young and clueless again. It allowed me to learn from different cultures, be they national, institutional or departmental. Just like travel is the last great pleasure left alone by health specialists and moralists, conferences represent the last link to yesteryear's statistics' research environment

And after all these years, are there lessons to be imparted based on the things I have seen, not only those I have done? A big one is to be kind, fair, generous, unenvious, and curious, and to appreciate and cherish the opportunity to mingle with others.

Just like a deep pool of water turns light into a magical blue hue, while small puddles look prosaic and pedestrian, so statisticians can find extra pizzazz and project a better image when they stand together.

Boaz Nadler: IMS Medallion lecture preview

Boaz Nadler earned his BSc, Msc and PhD degrees all from Tel-Aviv University, Israel. After his PhD, he spent three years as a Gibbs instructor / assistant professor at Yale University. Since 2005, he has been a faculty member at the Weizmann Institute of Science in Israel, where is now a full professor. His research interests include mathematical statistics, statistical machine learning and more generally applied and computational mathematics. He is also interested in statistical applications in signal processing and computational biology. In 2018 he was awarded the Abarbanel prize in applied mathematics by the Israel Mathematical Union, and in 2023 he was named a Fellow of the IMS.

Boaz Nadler's Medallion lecture will be at JSM Nashville, August 2–8, 2025.

Finding structure in high dimensional data: Statistical and Computational Challenges

A fundamental task in the statistical analysis of data is to detect and estimate interesting structures hidden in it. In this talk I'll focus on aspects of this problem under a high-dimensional regime, where each observed sample has many coordinates, and the number of samples is limited. We will review some well known results as well as some newer phenomena, derived more recently.

Specifically, we will show the following in a high-dimensional regime.

Firstly, standard methods to detect structure in high dimensions, such as principal component analysis, may not work well. In fact, we will also discuss some fundamental limitations to discover structure, whereby regardless of the method deployed, it may not be possible to discover weak structures in the data.

Secondly, sparsity can come to the rescue: When the structure to be discovered is concentrated in only a small unknown subset of relatively few variables, then it can be detected with much fewer number of samples, where traditional methods fail. However, this may bring with it significant statistical and computational challenges.

Finally, some interesting phenomena may occur in semi-supervised learning settings where for few of the samples we are also given their underlying labels. Specifically, we will consider a simple example involving a mixture of two high dimensional Gaussians with a sparse difference in their means. Here, when the separation is small, and the number of unlabeled samples is not extremely large, unsupervised learning of the mixture is believed to be computationally challenging, and there are no known polynomial time methods that succeed in this task. In a fully supervised setting, given a small labeled dataset, whereby for each sample we know from which Gaussian it came, accurately estimating the Gaussians and their difference is not possible from an information theoretic perspective, regardless of computational issues. However, as we will show, by combining these relatively small labeled and unlabeled datasets, in some parameter regimes it is possible to accurately estimate the two Gaussians by a simple polynomial time semi-supervised learning algorithm. In simple words, in sparse high-dimensional settings semi-supervised learning may offer non-trivial computational benefits.

George Stepaniants: IMS Lawrence D Brown PhD Student lecture

George Stepaniants is an NSF MSPRF postdoctoral fellow at the California Institute of Technology (Caltech) in the Department of Computing and Mathematical Sciences working with Professor Andrew Stuart. He received his PhD from the Massachusetts Institute of Technology (MIT) in 2024 in the Department of Mathematics co-advised by Professors Philippe Rigollet and Jörn Dunkel funded by the NSF GRFP and MIT Presidential Fellowship. He was also part of the Interdisciplinary Doctoral Program in Statistics (IDPS) through the Institute for Data, Systems, and Society (IDSS). Prior to MIT, George graduated in 2019 from the University of Washington (UW) with a Bachelors of Science in Mathematics and Computer Science where he performed research in the Department of Applied Mathematics under Professor Nathan Kutz.

George Stepaniants' talk will take place as part of the IMS Lawrence D Brown PhD Student Award session, at JSM Nashville, August 2–8, 2025. The preview is on the next page.

George Stepaniants: Brown Award lecture continued from previous page

Alignment of Untargeted Data through their Covariances: A Novel Perspective on a Classical Tool in Optimal Transport

Dataset or feature alignment is a fundamental problem in statistics and machine learning, arising in a variety of fields including computer vision, machine translation, and biostatistics. Despite the progress of feature alignment methods in computer science, they are not immediately applicable to biostatistical problems, where tasks such as data comparison, pooling, and annotation from a reference dataset must be guided by the correct biological constraints. These tasks frequently arise in "untargeted" studies of metabolomics, proteomics, and lipidomics experiments, where concentrations of compounds (metabolites, proteins, and lipids) are measured across a collection of patients. Because the compounds in these studies are not preselected and are unlabeled, they allow for the discovery of new biomarkers that indicate the health status of a patient. The unlabeled nature of these studies gives rise to a wide range of feature (compound) matching problems as practitioners often desire to compare the features, merge datasets, or transfer feature annotations between two untargeted experimental studies.

We begin this talk by discussing the relevance that optimal transport has for solving such problems in biological feature matching. Even when studying the same phenomena, biological datasets collected in different labs do not have identical cohorts or similar sample sizes. In order to match the features between such datasets, we discuss an important extension of the optimal transport method known as the Gromov–Wasserstein (GW) algorithm, which performs matchings between the feature similarity matrices of both datasets. To the extent of our knowledge, we develop the first application of optimal transport for the analysis and matching of metabolomic (liquid-chromatography mass-spectroscopy; LC-MS) datasets. Our method, GromovMatcher, a constrained GW solver, accurately matches corresponding metabolic features between studies, delivering superior alignment accuracy and robustness compared to existing approaches. Applying GromovMatcher to experimental metabolic studies of liver and pancreatic cancer, we discover shared metabolic features between these cancer groups and showcase the potential of our method for advancing alcohol biomarker discovery.

Motivated by these real-world feature alignment problems and the success of Gromov–Wasserstein in these settings, we propose and analyze a novel statistical framework for feature matching between two unlabeled datasets. In this framework, the features of both datasets follow the same joint Gaussian distribution with unknown covariance, and features of the second dataset are permuted by an unknown permutation which we wish to recover. We show how the correct permutation of the features can be recovered through a quasi-maximum likelihood estimator (QMLE) as well as through the GW method. Both estimators aim to align the empirical covariance matrices of both datasets, which we term the "covariance alignment" problem, offering a previously unstudied setting for graph matching with Wishart random matrices. The QMLE and GW estimators are instances of quadratic assignment problems which require combinatorial optimization over the discrete space of permutations. However, unlike the QMLE, the GW estimator can be lifted to the continuous space of coupling matrices and hence can be optimized with gradient methods, allowing it to scale to far larger matching problems as shown by our numerical experiments.

The novelty of our statistical framework lies in the fact that the unknown covariance of both datasets is treated as a nuisance parameter. This allows us to show that QMLE and GW achieve the same minimax optimal rate for the covariance alignment problem that has a non-standard dimension scaling, interpolating between the rate of permutation estimation and the rate of estimation of the nuisance covariance. Finally, these results give the first statistical justification of the Gromov–Wasserstein algorithm for feature alignment.

This talk is based on my PhD work with Philippe Rigollet and Yanjun Han at MIT along with collaborators in the group of Vivian Viallon at IARC in Lyon, France.

Obituary: Myles Hollander

1941–2025

Myles Hollander, Robert O. Lawton Distinguished Professor of Statistics and Professor Emeritus at Florida State University, passed away peacefully in Tallahassee, FL, on January 27, 2025. He was born in Brooklyn, NY on March 21, 1941. As an only child, Myles spent many afternoons at Ebbets Field and counted Jackie Robinson, Pee Wee Reese, Johnny Podres, and Gil Hodges as his friends. Myles graduated from Brooklyn's storied Erasmus Hall High School. His love for the Dodgers continued after their move to Los Angeles, and he cherished their recent World Series win over the NY Yankees.

Myles obtained his B.S. in 1961 from Carnegie Institute of Technology (now Carnegie Mellon) and, in 1965, his PhD in Statistics from Stanford University, where he worked with Lincoln Moses and developed new rank tests for randomized blocks. Stanford was also where he started his great love story with Glee Ross. Myles met Glee on the dance floor in June, 1962, when she agreed to a cha cha. Myles' pursuit of Glee started immediately thereafter, and they were married in Stanford's Memorial Church on August 17, 1963.

Their first child, Layne, was born at Stanford's hospital on October 29, 1964. In 1965, attracted by the research in nonparametrics of Ralph Bradley, Frank Wilcoxon and Richard Savage, Myles joined the Statistics Department at Florida State University. So began Myles' enduring love of FSU and Tallahassee. As a new professor, Myles followed the advice of senior colleagues to prove his mettle through solo publishing and research with students. Later, he collaborated with colleagues Frank Proschan and Jayaram Sethuraman and credited this for vastly expanding his scope of work. Myles was a fierce competitor in intramural sports, winning titles in basketball and, in softball, defeating a team comprised of members of FSU's 1972 NCAA Men's Basketball National Runner-Up.

On August 1, 1968, Myles' second son Bart was born. Myles adored his role as father and coach to his boys. He would catch pitches in the early morning while Layne perfected his curveball and Bart his palm ball. Myles developed a love for tennis, utilizing the metal Wilson T2000 racquet popularized by Jimmy Connors. Myles wore out opponents with his tenacity, saying with a smile, "Everybody hates the dinker, but he has all the trophies."

Myles thrived at FSU, noting "There's nothing better than being university professor." He loved scientific interchange and traveling, with Glee, to conferences in the US and abroad. Myles served as Chair of the Statistics Department for nine years, received the Professorial Excellence Award in 1977, was named Distinguished Research Professor in 1996, and in 1998 was named Robert O. Lawton Distinguished Professor, the highest honor the FSU faculty bestows upon their own. Myles was a Fellow of the American Statistical Association and the IMS, and an Elected Member of the International Statistical Institute. He served as Associate Editor for the *Journal of the American Statistical Association* (1985–94) and then as Editor-Elect (1993–94) and Editor (1994–96) of *JASA Theory and Methods*. He also served on the editorial boards of the *Journal of Nonparametric Statistics* (1993–97; 2003–05) and *Lifetime Data Analysis* (1994–2007). In 2003, the ASA recognized him with the Gottfried E. Noether Senior Scholar Award for excellence in theory, methodology, and

Myles Hollander

applications in nonparametric statistics. Myles published over 100 papers in areas including nonparametric statistics, reliability theory, survival analysis, biostatistics, and probability theory and directed or co-directed 19 PhD students. He co-authored textbooks including *Statistics: A Biomedical Introduction* with Byron Brown; *Nonparametric Statistical Methods* with Douglas Wolfe, and *The Statistical Exorcist: Dispelling Statistics Anxiety* with Frank Proschan, which was lovingly co-illustrated by Myles' wife Glee. Myles also coined the phrase, "Statistics Means Never Having To Say You're Certain," his apt play on words from the bestselling 1970 novel and film *Love Story*.

Myles retired in 2007 after 42 years of service. In 2020, he established the annual Myles Hollander Distinguished Lectureship in appreciation of FSU, its statistics department, and the statistics profession. Myles was a loving husband to Glee (d. 2015) for 52 years. He is survived by his sons, Layne and Bart, daughter-in-law, Catherine Sanderson, and five grandchildren, Taylor, Connor, Andrew, Robert and Caroline. The FSU Department of Statistics is forever grateful for Myles's contributions and love and enthusiasm for our discipline. A celebration of life will be held on FSU's campus in the Fall in conjunction with the annual Myles Hollander Distinguished Lectureship.

Written by Elizabeth H. Slate, Florida State Univ., & Edsel Peña, Univ. of South Carolina

OBITUARY: P. Warwick Millar

1939–2024

Pressley Warwick "Warry" Millar

Pressley Warwick (Warry) Millar, Emeritus Professor of Statistics at the University of California, Berkeley, passed away surrounded by his family, due to complications of heart failure on August 27, 2024. He was 85 years old.

Warry was born in Beverly, Mass., on June 1, 1939, to Norval Pressley and Marian Millar. After he completed his early education in Danvers, Mass., he attended Brown University where he completed his bachelor's degree in 1961. He then obtained a master's degree in History of Science at Cornell University, followed by a PhD in Mathematics at the University of Illinois Urbana-Champaign in 1967. His doctoral dissertation, supported in part by a terminal year National Science Foundation (NSF) Graduate Fellowship, was titled "Martingale Integrals," written under the direction of Donald Lyman Burkholder,

After his PhD, and still in 1967, Warry joined the UC Berkeley Department of Statistics, as Assistant Professor, where he developed a distinguished career. He received a coveted NSF Postdoctoral Fellowship (1971–72), and attained the positions of Associate Professor in 1972 and Professor in 1977. Upon retirement in 2003, he was appointed as Professor Emeritus at UC Berkeley.
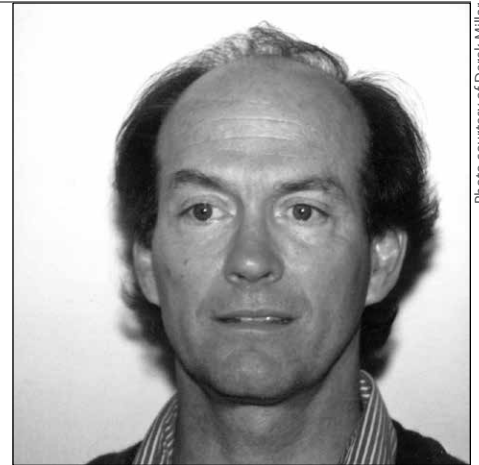
Warry's scientific writings can be divided into two parts. In the first phase of his research career (roughly 1967–80), Warry wrote extensively on central topics in the theory of probability and stochastic processes. During this phase, he made important contributions to the theory of stochastic integration, potential theory of Markov processes, and analysis of the sample functions of Markov processes including decompositions theorems for Markov processes at random times. Despite the difficult and technical nature of the work, one cannot help but notice the elegant style with which Warry explained deep ideas succinctly, each idea flowing naturally from the previous one, seemingly without need for unnecessary technical details. One also might notice a particular affinity for the study of Lévy processes, better known at that time as "processes with stationary and independent increments." The following beautiful result is a noteworthy example. See Millar [4, Theorem 3.1] for a precise description.

Let $X = \{X_t; t \geq 0\}$ denote a Lévy process and let R be an arbitrary random time. Suppose that the smallest value of X during the random time interval $[0, R]$ is achieved at a single point in $(0, R)$, and define M to be the time when the minimum is achieved. Then, essentially as long as M and R can be defined canonically and $M < R$, the random function $\{X_{M+u} - X_M; u \geq 0\}$ has a zero-one law immediately to the right of the time M.

In the case that M is a "stopping time," such a zero-one law was first proved by Hunt [2] for a Brownian motion X, and Blumenthal [1] for a general strong Markov process. In that case, the result reduces to the celebrated "Blumenthal zero-one law," which is a cornerstone of modern stochastic analysis. Millar's zero-one law is significant in part because M is not a stopping time. Also because, in the same paper (§4), Millar goes on to prove that if X is a general strong Markov process, with R and M defined as in the above theorem, and if a zero-one law holds at time M—as he proves it does in great generality when X is a Lévy process—then conditionally the post-M process $\{X_t; t \geq M\}$ is a Markov process, given (X_M, X_{M-}), that is independent of the pre-M process $\{X_t; t \leq M\}$.

The second phase of Warry's scientific writing (roughly 1980–97) was primarily devoted to the study of the minimax principle and asymptotic optimality of statistical procedures, in particular of minimum distance estimators. Warry showed that minimum distance estimators have a desirable stability property: These estimators do not deteriorate when the actual data distribution departs somewhat from that posited by the model. In characteristic fashion, Warry established this robustness property in a very abstract form by analyzing certain stochastic processes in a Banach space and showing that minimum distance estimators share a very simple abstract structure asymptotically, which then allows to establish a local asymptotic minimax result [3, 5]. This abstract result can be used to show that this robustness property holds in a multitude of different settings, such as in regression, for quantile estimation, and for minimum distance estimators for M-functionals. In a series of papers with his department colleague and lifelong friend Rudolf Beran, Warry showed how random approximations together with the recently developed bootstrap principle can be used to make feasible a range of previously inaccessible statistical procedures [7], such as confidence sets for a distribution given by the half-space generalization of the Kolmogorov–Smirnov statistic introduced by Wolfowitz [6]. These papers lie at the intersection of mathematical statistics, probability theory, and algorithmic feasibility.

Warry Millar, 1939–2024

Warry was outstanding as a lecturer, as well as a mentor. He offered a rich variety of graduate courses on important topics that ranged from fine properties of Lévy processes, to advanced topics in Markov processes, to statistical decision theory, to inference in functional spaces, and so on. Much as he did in his research exposition, in his courses Warry transmitted the feeling that the material on the blackboard was somehow simple, being a natural consequence of what had been previously discussed. He had an almost magical ability to pace his lectures so that students could take effective notes, while he kept the dialogue flowing naturally. And he frequently prepared exercise sets to enrich the students' learning experience, even when the course was offered at the most advanced graduate levels.

Beyond his excellent contributions to research, teaching and mentoring, we remember Warry the most for his generosity of spirit. According to the Mathematics Genealogy Project, https://www.mathgenealogy.org, Warry has 15 graduate students and 85 mathematical and statistical descendants. He leaves behind a rich scientific legacy that is likely to continue for a long time to come.

Written by Davar Khoshnevisan, University of Utah; Carl Mueller, University of Rochester; Maria Eulalia Vares, Universidade Federal do Rio de Janeiro; and Guenther Walther, Stanford University

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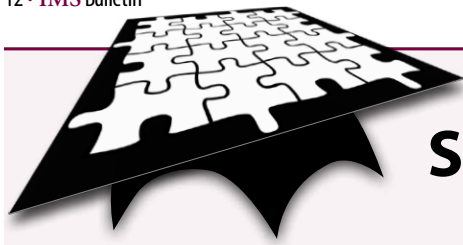
Student Puzzle 56

Puzzle editor Anirban DasGupta says, "It is enough to send a correct answer to either 56.1 or 56.2. For each part in 56.2, a correct answer (True or False) receives +3 points, each incorrect answer receives -2 points, and each item left unanswered receives -1 point. It would be really nice if you send an answer to both problems, though it is not required."

Student members of IMS are invited to submit solutions to bulletin@imstat.org (subject "Student Puzzle Corner"). If correct, we'll publish your name (and photo, if there's space), and the answer, in the next issue.

The Puzzle Editor is Anirban DasGupta. His decision is final.

Puzzle 56.1 Suppose we keep observing i.i.d. Poisson random variables with mean one, until the sum exceeds a given positive integer k. Let u_k denote the expected overshoot when we stop. Give an analytical expression for u_k and discuss the convergence of $\sum_{k=1}^{\infty} u_k$.

Puzzle 56.2, *the contest problem. For each question, just say True or False, without the need to provide a proof. But answers with some explanations are especially welcome. Here are the items.*

(a) A fair coin is tossed n times. Let H be the number of heads and T the number of tails. Then, $E(|H - a\,T|)$ is minimized at $a = 1$.

(b) Two i.i.d. observations are obtained from a Cauchy distribution with location μ and scale parameter 1. The first observation is $x_1 = 5$. Then the set of all values of x_2, the second observation, for which the likelihood function is unimodal is an interval in the real line.

(c) Suppose $X \sim$ Poisson(λ). Then, $E(|X - \lambda|)$ is differentiable for almost all λ.

(d) Suppose we obtain i.i.d. observations X_1, X_2, X_3 from a uniform distribution on $[0, \theta]$, $\theta > 0$. Denote the median of X_1, X_2, X_3 by Y. For testing $H_0: \theta = 1$ against $\theta = 2$ at level $a = 0.05$, there exists a test based on Y with power > 0.5.

(e) Suppose $X \sim C(0, 1)$, the standard Cauchy distribution. Then $\sum_{n=1}^{\infty} (-1)^n P(X > n)$ diverges.

(f) Let $X_{n \times p}$ be the design matrix in a standard linear model. Then $R(X'X) \geq 2R(X) - n$, where $R(A)$ denotes the rank of A.

(g) Suppose $X_1, X_2, \ldots, X_n$ are i.i.d. $N(\mu, 1)$, where μ is known to be a rational number. Then $\overline{X}$ is a minimal sufficient statistic.

Solution to Puzzle 55

IMS student member **Ruiting Tong** (Purdue University) sent correct and rigorous answers to most of the problems. And a mention for **Eshan De** (ISI Delhi) who also attempted many of them. Puzzle Corner Editor Anirban DasGupta writes on the previous puzzle:

Ruiting Tong

Puzzle 55.1: Let $X_1, \ldots, X_n$ be i.i.d. $C(\mu, 1)$, the Cauchy distribution with median μ and scale parameter 1.

(a) Prove rigorously that the number of roots T_n of the likelihood equation is an odd integer between 1 and $2n - 1$.

The likelihood equation is a rational function of μ, with the denominator being a positive polynomial, and the numerator a polynomial of degree $2n–1$. Since complex roots will come in pairs, there must be an odd number of real roots.

(b) Find with precise reasoning $\lim_{n\to\infty} P(T_n > 1)$.

If we write $T_n = 2R_n + 1$, then without any further centering and norming, R_n has a limiting distribution, namely, a Poisson with mean $1/\pi$; you can see, e.g., Erich Lehmann's book on theory of point estimation. Therefore, $\lim_{n\to\infty} P(T_n > 1) = 1 - e^{-1/\pi}$.

Puzzle 55.2: True or False?

(a) A quadratic $ax^2 + bx + c$ is called a Gaussian quadratic if a, b, c are i.i.d. standard normal. If X_1, X_2 denote the two roots of a Gaussian quadratic, then the expectation of $\frac{1}{X_1} + \frac{1}{X_2}$ does not exist.

TRUE. With probability 1, the roots are both non-zero, and $\frac{1}{X_1} + \frac{1}{X_2} = -\frac{b}{c}$, which has a standard Cauchy distribution, and so does not have an expectation.

(b) In the standard linear model $E(\mathbf{Y}) = \mathbf{X}\beta$, no quadratic function $\mathbf{Y}'\mathbf{AY}$ can be an unbiased estimate of a linear function $\mathbf{c}'\beta$.

TRUE. We can write an exact formula for the expectation of a general quadratic form. Simple linear algebra then shows that this function cannot equal a linear function of β for all β.

(c) There exists a location parameter density on the real line such that the average of the three sample quartiles is asymptotically the most efficient among all convex combinations of the three sample quartiles.

TRUE. This one is tricky, in the sense that if you did not already know what this distribution is, you would not be able to guess it. Using the formula for the covariance matrix of the asymptotic multivariate normal distribution of a fixed number of sample percentiles, we can specialize it to the case of the three quartiles. Therefore, we can get from here the asymptotic

variance of any convex combination of the three quartiles. It then follows, remarkably, that the simple average of the three quartiles has the least asymptotic variance among all consistent convex combinations for a *t*-distribution, whose degree of freedom can be computed from the asymptotic variance formula.

(d) Suppose $f : [0, 1] \to \mathbb{R}$ is a strictly increasing continuous function. Then there is a minimum value of $D(r) = \int_0^1 |f(x) - r| \, dx$, and the minimum is attained at a unique real number r_0.

TRUE. Just interpret the integral as the mean absolute deviation from r of $f(X)$ if X is uniform on $[0, 1]$ and then it follows that the minima is the median of $f(X)$, which is unique for a function f as given. The continuity of f is just a simple sufficient condition for the existence of $D(r)$.

(e) Let X_n denote an $n \times n$ matrix all of whose elements are ± 1. If D_n denotes the supremum of the determinant of all such matrices X_n, then $(D_n)^{1/n}$ has a finite limit superior.

FALSE. Jacques Hadamard proved in 1893 in a classic article that if n is a power of 2, $n = 2^k$, then $D_n^{1/n}$ is $2^{k/2}$. Therefore the limit superior of $(D_n)^{1/n}$ is infinite.

(f) Sixteen equally good soccer teams are going to play in a tournament, in which teams are paired up at random, and a team which loses a match is eliminated from the tournament. The probability that teams 1 and 2 will meet each other at some point in the tournament is more than 10%.

TRUE. A direct calculation will show that the probability that any given pair of teams will meet during the tournament is 1/8.

New Researchers Group

The IMS New Researchers Group President Armeen Taeb shares some updates from the NRG:

The IMS Meeting of New Researchers in Statistics and Probability (a.k.a. the **New Researchers Conference** or NRC) will be held at Vanderbilt University Medical Center in Nashville, Tennessee, July 31– August 2, 2025 (immediately before JSM). Junior researchers are highly encouraged to apply! Deadline April 30. For more information see https://nrc2025.github.io/.

NRG is planning to hold a Zoom panel session on **"Statistics in the Age of AI"** this Spring. In this panel session, we would like to discuss how statistics can be useful for solving outstanding research problems in industry and the differences between statistical research in industry and in academia. Details forthcoming.

For the first time, NRG is organizing a session at the **Indian International Statistical Association (IISA) Conference**, which will be held June 12–15, 2025, at the University of Nebraska-Lincoln. See https://www.intindstat.org/conference2025/index for updates.
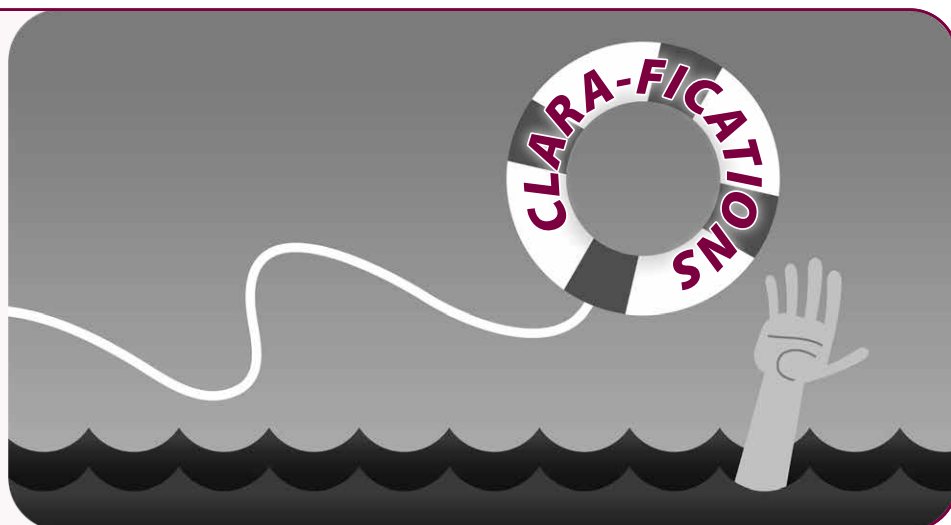
NRG is also planning to organize a **mixer at JSM!** Stay tuned.

If you need some career advice…
If you feel like you're drowning when your fellow students are swimming…

Ask for Clara-fication!

*Email your question or conundrum to bulletin@imstat.org, we'll **anonymize** it, and publish Clara Grazian's helpful response (and **not your name!**).*

XL-Files: Seeking simplicity in statistics and complexity in wine (Part 3)

In the last two issues of the *IMS Bulletin*, **Xiao-Li Meng** has taken us on an epicurean journey of wine, chocolate and whiskies, extracting a few teaching points along the way. To round off the three-part series, he takes us on an alphabetical exploration of the world of wine… or at least, A to F… This article is based on Xiao-Li's publication in a wine magazine, FONDATA, titled "Seeking simplicity in statistics, complexity in wine, and everything else in fortune cookies." Enjoy the final pour from Xiao-Li's bottle!

"This is exactly how I imagined an educational holiday party should be."

My epicurean and pedagogical adventures [*as described in the previous two XL-Files*] seemed to be all coincidental and serendipitous, but ultimately, they led to an organized effort during my deanship thanks to a leader in the world of wine, and a very supportive staff team. Every (new) dean needs some initiatives to make their presence known, or at least, to resist becoming dark matter. Mine were: professional development for students, global engagement for alumni, and fundraising for the school. The appreciation of wine served me well for both alumni engagement and fundraising, which ultimately helped the professional development initiative because alumni are the best human resource for building professional networks for students, and fundraising is a more effective route for securing funds to support professional development innovations than untangling bureaucratic skeins to seek funding for anything unprecedented.

Naturally, global engagement and fundraising called for many trips, which offered me ample occasions to test the common wisdom that wine is a social lubricant. (Buy me a drink, and I shall share my data, and with free hypothesis testing for the folklore.) These trips also seated me next to many extraordinarily rich individuals, whether entrepreneurially, intellectually,

spiritually, or financially. One of them was Don St. Pierre, then the co-founder of ASC Fine Wines. Our conversation quickly turned into our shared passion. Teaching, that is. Don was eager to help young talents with his singular experiences from adventuring on foreign soils, literally and figuratively, including venturing into the wine business without any background in wine. His accomplishments had earned him many accolades, epitomized by being elected as the International Man of the Year by *Wine Enthusiast* in 2011.

An impactful professional development program should help students experience the world outside of academia before they live in it daily, by choice or by necessity. Connecting students with industry and business leaders and builders is an obvious step. Don's passion for sharing his experience then was a perfect match. I was therefore delighted when Don became an Entrepreneur-in-Residence for Harvard's Innovation Labs ("i-labs"), an ecosystem

Don St. Pierre with Xiao-Li Meng and some rather large glasses of excellent wine

that supports "Harvard students and selected alumni in their quest to explore the world of game-changing innovation and entrepreneurship". Don's presence on Harvard's campus also moved the dean's seasonal toast from should-not-be-missed to *must*-not-be-missed. During his trip to i-labs in December 2013, he brought some iconic Australian wine (Penfolds Grange and Rieslings, and Leeuwin Estate Art Series) as well as Master of Wine Sandy Block, of Legal Seafoods. Together with my very able staff team, they turned the graduate school common room into a professional tasting room. Don started the event on December 10 with an educational presentation: "Behind the Grapes: Learning Australia's Distinct Wine Regions," interlaced with some of his own adventure stories. With ample food for thought, the audiences were expertly guided by Sandy to prepare the wine for their palates, or rather to train their palates to best appreciate wine that most of them could not afford. With everyone merry (me especially), my seasonal toast was as expressive and lingering as the 2007 Grange. I don't recall a single sentence but can still hear the laughter and applause, and a faculty member's endorsement: "This is exactly how I imagined an educational holiday party should be." (Well, surely my colleagues have expensive taste; but thanks to Don for his generosity, we were able to run this and all subsequent dean's seasonal toasts within our normal budget for holiday appreciation, because all wine, time, and travel expenses were provided by Don and his invitees.)

Greatly encouraged, Don and I started to plan for future seasons almost immediately after. Since we had started with Australian wine, it seemed quite natural to continue the alphabetic theme, with B for Bordeaux or Burgundy, of course.

From A to B to…

With his charm and persuasion, Don made my staff team seriously worried as to how they could satisfy the demand for seating the following year. He brought in none other than Prince Robert of Luxembourg, President of the estate of Domaine Clarence Dillon, which oversees production of the Château Haut-Brion, Château Tertre Daugay, and Saint-Emilion, among other brands. To a fully packed room on December 12, 2014, Prince Robert delineated his family's history with Haut-Brion, and then led a tasting of a dozen wines representing the super-premium offerings of Domaine Clarence Dillon and Bordeaux, from 1995 Château Haut-Brion to 2012 La Clarté de Haut-Brion. It goes without saying (or drinking) that many attendees felt that they were daydreaming, sipping Haut-Brion with—and offered by—an actual prince. If I had not been as inspired myself, I'd have started my toast by repeating a story that I used earlier that year during my graduation speech. *A professor was dreaming he was teaching. He woke up. He was.* In case you are envious of those daydreamers, I'd leave it to you to spell out the moral of the story (for students, of course) or the message I intended it to convey.

Daydreaming or not, I got a bit worried immediately after the event. What could we do the next season, that would not be perceived as a regression towards the mean? But Don did it again, and this time he brought not one speaker but two: the father–son team of Harlan Estates: *C is for California (sorry, Champagne)*. And their presentation inspired even larger dreams. As Bill Harlan, the father, wrote in his poetic *A Note from the Proprietor,* "Every life is full of dreams. […] Those of us who awaken at some point to the desire for something more lasting than momentary pleasures are lucky in the best sense of the word. That knowledge—the awareness that growth cannot occur in the absence of roots—makes it possible to imagine, and perhaps to pull into existence, something that may last for many generations." I was particularly intrigued by their discussion

of thinking and planning on the scale of 150 years. Why 150 years? Bill's answer still stays with me. One hundred fifty years represent the typical generation span which still permits a direct memorial lane or knowledge path, from one's grandparents to one's grandchildren. Since then, I have literally expanded my dream horizons or verticals, with or without libation. For example, I'm now serving as the Founding Editor-in-Chief of *Harvard Data Science Review* (*HDSR*), which recently celebrated its five-year anniversary. But constantly on my mind is its centennial celebration. That is, if it will have one.

The dream continued in 2016 with the theme *D for Diversity*, showcasing a Chinese red, a New Zealand white, a you-know-where Champagne and even a Cognac, all offered by Moët Hennessy's Estates & Wines. A Chinese red from Moët Hennessy? Yes, Ao Yun, a blend of 90% Cabernet Sauvignon and 10% Cabernet Franc grapes grown in a perfect mix of sunshine and shadows cast from the foothills of the Himalayas, near the legendary Shangri-La. Making China's first luxury wine that can compete with the world's greatest wine is a dream in progress, with its challenges as epic as its mission. "How could one build a world-class winery without electricity?" asked Jean-Guillaume Prats, the CEO of Moët Hennessy's Estates & Wines, whose presentation (on December 5) was as captivating as Ao Yun. Wine induces passion, but ultimately a breathtaking wine is the result of sustained passion. The story of the making of Ao Yun could not have been more pertinent for the spirit of the dean's seasonal toast, which was to thank all, and further spark passion, for supporting the graduate school as it continues its mission of turning emerging talents into world-class leaders who can address the most challenging issues faced by humanity.

But what would be *E* in the wine world? By then, I had completed a five-year deanship, which earned me a much-needed

XL-Files: continued from page 15

sabbatical—meaning that I would have uninterrupted days to seek simplicity in statistics, complexity in wine, and everything else in fortune cookies. Luck has it that my successor Emma Dench (if this last name looks familiar, Emma is the niece of Judi Dench) is a professor of classics, and Don arranged a tasting of Kir-Yianni and Sigalas wines from Ελληνική Δημοκρατία (*Ellinikí Dimokratía*: Hellenic State, or Greece). This perfect pairing not only was symphonized by a double *E*, but most importantly provided the audience with another double treat: a singular tour, led by a world-class scholar in classics, of the historical and cultural context of wine in ancient Greece, and a tasting of the award-winning wine lead by a representative from the estates of Kir-Yianni and Sigalas (on December 7, 2017).

In the following year, Don brought in yet another award-winning wine, together with its producer. On December 3, 2018, Emma's dean's seasonal toast featured Gaja wine, a tasting led by "the undisputed king of Barbaresco," Angelo Gaja. The elegant and opulent wines paired perfectly with an energetic, wide-ranging presentation by the charismatic Gaja, who covered topics from the impact of climate change on wine to his philosophy and practice of teaching and transmitting knowledge.

But what is *F? Fame? Finest? Fantastic?* Unfortunately, the silent *F* turned out to be *Finale.* By then I had immersed myself with *HDSR*, a flagship publication of Harvard Data Science Initiative (HDSI), a university-wide organization. Emma and I therefore talked about moving the wine tasting to HDSI, and Don and I started to discuss the possibility of holding an annual workshop on data science for wine, which would be a natural occasion to continue the tasting event. Then the world changed its natural course, that is, nothing seemed natural or normal anymore, thanks to

COVID-19. Many activities found their virtual substitutions or proxies that were, and are, at least acceptable. But wine tasting is not one of them. "Cheering" via Zoom can never match sharing in a room.

"Coincidence is God's way of remaining anonymous"

Was it merely a coincidence that dean's seasonal toast ended on F? "Coincidence is God's way of remaining anonymous." Surely Albert Einstein would have been a great fortune cookie writer. (Yes, there is such a profession.) Or as Bill Harlan put it, "Everything happens in season. […] It is only in retrospect, however, that we can see how our lives come to be what they are, no matter how well or wisely or far ahead we think we plan them." Reflecting on the progression from A to F (over a glass of 1999 Chateau Musar) turned a lingering into a longing. The seasonal toast was designated to be only for a season. It was on its way for its next season, pairing wine with data science, an artificial ecosystem,

regardless of how the natural ecosystem evolves. Whether it was driven by vine or the divine, it is cycling back to its first growth, wine and statistics, as statistics itself is being fermented into the Grande Cuvée of data science.

As a data-driven fortune teller, I'm eagerly seeking data and signs, from fortune cookies to fortune/future makers. Do I have any doubt that it will happen? Of course, I do—no fortune teller can tell their own fortune. But every time I leave my (now properly thermal-controlled) meditation room, the doubt lessens, thanks to a souvenir from a post-seminar trip to Napa Valley, organized by my statistical colleagues at University of California, Davis. (Apparently, as members of a university known for its viticulture and enology studies and degree programs, my colleagues there really understand the seductive and inspirational power of wine.) It was an engraved barrel stave, welcoming anyone entering the XL-cellar.

When in doubt, add more wine.

A message on a wine barrel stave in Xiao-Li's wine cellar / meditation room
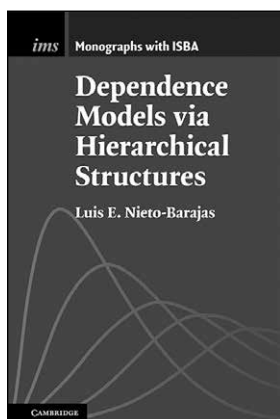
The Institute of Mathematical Statistics presents

IMS MONOGRAPHS

Dependence Models via Hierarchical Structures

Luis E. Nieto-Barajas, Instituto Tecnológico Autónomo de México (ITAM)

Bringing together years of research into one useful resource, this text empowers the reader to creatively construct their own dependence models.

Intended for senior undergraduate and postgraduate students, it takes a step-by-step look at the construction of specific dependence models, including exchangeable, Markov, moving average and, in general, spatio-temporal models. All constructions maintain a desired property of pre-specifying the marginal distribution and keeping it invariant. They do not separate the dependence from the marginals and the mechanisms followed to induce dependence are so general that they can be applied to a very large class of parametric distributions. All the constructions are based on appropriate definitions of three building blocks: prior distribution, likelihood function and posterior distribution, in a Bayesian analysis context.

All results are illustrated with examples and graphical representations. Applications with data and code are interspersed throughout the book, covering fields including insurance and epidemiology.

Luis E. Nieto-Barajas is Full Professor and Head of the Department of Statistics at the Instituto Tecnológico Autónomo de México (ITAM). He was previously President of the Mexican Statistical Association (2020–2021). For his thesis, he won the Savage Award (2001) and the Francisco Aranda Ordaz Awards (2002–2004).

www.imstat.org/cup

Recent papers: Two open-access journals

Probability Surveys

Probability Surveys is a peer-reviewed electronic journal which publishes survey articles in theoretical and applied probability. The style of articles may range from reviews of recent research to graduate textbook exposition. Articles may be broad or narrow in scope. The essential requirements are a well specified topic and target audience, together with clear exposition. The journal is sponsored by the Institute of Mathematical Statistics and by the Bernoulli Society. *Probability Surveys* is an Open Access journal. The full text of each article published is freely available to all readers. The Editor-in-Chief is Adam Jakubowski.

Read it at **https://projecteuclid.org/journals/probability-surveys/current**

Volume 21, 2024

Stochastic Systems

Stochastic Systems is the flagship journal of INFORMS Applied Probability Society. The journal publishes high-quality papers that substantively contribute to the modeling, analysis, and control of stochastic systems. A paper's contribution may lie in the formulation of new mathematical models, the development of new mathematical or computational methods, the innovative application of existing methods, or in the opening of new application domains. Relative to application-focused journals, *Stochastic Systems* concentrates on on how applied probability plays a significant, and not just supporting, role in this field. Relative to other applied probability outlets, *Stochastic Systems* focuses exclusively on operations research content. *Stochastic Systems* provides open access to all of its content. Articles are published under the Creative Commons CC-BY: Attribution license. The Editor-in-Chief is Devavrat Shah.

Read it at **https://pubsonline.informs.org/toc/stsy/current**

Volume 14, Issue 1, March 2024

Call for papers: *Brazilian J. Probability and Statistics*

The *Brazilian Journal of Probability and Statistics* is an official publication of the Brazilian Statistical Association, ABE (http://www.redeabe.org.br/), and is supported by the IMS. *BJPS* publishes four issues a year in applied probability, applied statistics, computational statistics, mathematical statistics, probability theory, and stochastic processes. The Editor-in-Chief is Francisco José A. Cysneiros

Special issue celebrating 40 years of ABE and XXV SINAPE

Deadline for submissions: 30 May 2025.

BJPS will publish a special issue marking 40 years of ABE and the 25th SINAPE (National Symposium on Probability and Statistics, August 2024, in Fortaleza, Brazil). The call seeks high-quality research papers in applied or theoretical probability and statistics, with **Marcos Prates** (UFMG) and **Juvêncio S. Nobre** (DEMA-UFC) as guest editors. Please see https://imstat.org/journals-and-publications/brazilian-journal-of-probability-and-statistics/ for more information and how to submit your paper.

Elections 2025: Meet your candidates

We are pleased to introduce the people who are standing in the 2025 IMS Council elections. This year, along with **Richard Samworth**, the candidate for President-Elect, we once again have 10 candidates for the five available places on the IMS Council: **Alexandre Belloni, Cristina Butucea, Tianxi Cai, Jian Huang, Po-Ling Loh, Sayan Mukherjee, Victor M. Panaretos, Alexander Rakhlin, Veronika Ročková,** and **Hongtu Zhu**. Read more about them below… and don't forget to vote! The deadline for your vote is **June 21, 2025**. See **https://www.imstat.org/elections/**

President-Elect candidate

Richard J. Samworth

Professor of Statistical Science and Director of the Statistical Laboratory, Department of Pure Mathematics and Mathematical Statistics, University of Cambridge

http://www.statslab.cam.ac.uk/~rjs57/

Education
- BA with MMath, 2000, University of Cambridge
- PhD in Statistics, 2004, University of Cambridge

Research Interests
- Statistical methodology and theory
- Nonparametric inference under shape constraints
- High-dimensional statistical inference
- Missing data
- Subgroup selection
- Data perturbation techniques
- Changepoint estimation
- Unconditional and conditional independence testing
- Applications, especially in public health, genetics, archaeology and oceanography

Previous Service to the Profession
Previous IMS service:
- Co-Editor, *Annals of Statistics* (2019–2021)
- Associate Editor, *Annals of Statistics* (2013–2018); Associate Editor, *Statistical Science* (2017–2018 and 2022–present)
- IMS Council (2012–2015)
- Council Subcommittee on Co-sponsored meetings (2012–2015)
- Council Subcommittee on Open Access (2013–2015)
- Committee to Select Editors (2017–2018 & 2022–2023); Chair (2023–present)
- Committee on Fellows (2024–present)
- Committee on Publications (2019–2021)
- Ad-hoc Committee on Publication Policies and Procedures (2016–2017)
- Committee on New Researchers (2007–2010).

Selected other roles for the profession:
- Associate Editor, *Journal of the Royal Statistical Society, Series B* (2006–2014); Associate Editor, *Biometrika* (2010–2014); Associate Editor, *Journal of the American Statistical Association, Theory and Methods* (2017–2018); Associate Editor, *SIAM Journal on Mathematics of Data Science* (2018 & 2023–present); Associate Editor, *Statistica Sinica* (2011–2014)
- Vice–President for Academic Affairs, Royal Statistical Society (2024–present)
- Royal Statistical Society Council (2012–2015 & 2024–present)
- Royal Statistical Society Executive Committee (2024–present)
- COPSS Presidents' Award Committee (2024–present)
- COPSS Leadership Academy Award Committee (2020–2023); Chair (2021–2022)
- Bernoulli Society Council (2017–2021)
- European Regional Committee of the Bernoulli Society (2010–2018); Chair (2015–2016)
- European Research Council Consolidator Grant panel (2023)
- Council for the Mathematical Sciences Board member (2024–present)
- Isaac Newton Institute Steering Committee (2024–present)

Brief Statement
It is a great honour to be nominated to become the next President of the IMS. I joined the society as a PhD student, and have always admired the professionalism with which it is run, thanks to the efforts of many individuals on its behalf. I plan to enhance the IMS's commitment to promoting high-quality scholarship through its journals and conferences, supporting early career researchers and strengthening the discipline, ensuring that it remains at the forefront of innovation and inclusivity. A particular focus will be on further extending the society's geographical and intellectual reach, as we navigate the opportunities and challenges posed by the AI era.

Council candidates: 10 standing for five places

Alexandre Belloni

Westgate Distinguished Professor of Decision Sciences and Statistical Sciences, Fuqua School of Business, Duke University

https://people.duke.edu/~abn5/belloni-index.html

Education
- PhD MIT (2006)
- MSc IMPA (2002)
- BEng PUC-Rio (1999)

Research Interests
- High-dimensional statistics
- Nonparametric and semiparametric inference
- Empirical processes
- Probability Theory
- Causal inference
- Distributional approximations (CLT, Bootstrap)

Previous Service to the Profession
- Associate Editor for *The Annals of Statistics* (2019–2024)
- Associate Editor for *Journal of the Royal Statistical Society, Series B* (2017–2021)
- Associate Editor for *Journal of Econometrics* (2017–2021)
- Associate Editor for *Econometric Theory* (2017–2021)
- Associate Editor for *Journal of Business and Economic Statistics* (2019–2021)
- Associate Editor for *Management Science* (2017–2020)
- Area Editor for Machine Learning and Data Science area of Operations Research (2018–2023)
- Chaired Lanchester Prize (2023), Lanchester Prize (2022)

Brief Statement
I am truly honored to be nominated for the IMS Council election. The IMS plays a vital role in advancing developments in statistics, probability, and their applications, shaping the field through its commitment to excellence. I am dedicated to supporting IMS's mission and strengthening its leadership in the mathematical statistics community. Upholding the tradition of high scientific standards in IMS publications is essential, as is ensuring the society's continued influence in the rapidly evolving AI and data science landscape. I look forward to contributing to IMS's ongoing efforts to foster innovation, collaboration, and impactful research.

Cristina Butucea

Professor, CREST, ENSAE, Institut Polytechnique de Paris

https://cbutucea.perso.math.cnrs.fr/

Education
PhD in Statistics, in 1999, at the University Paris 6 (now Sorbonne University)

Research Interests
- Mathematical statistics
- High-dimensional sparse models
- Nonparametric inference
- Machine learning
- Differential Privacy
- Inverse Problems
- Quantum Statistics

Previous Service to the Profession
- Associate Editor: *Electronic Journal of Statistics* 2010–2012; *ALEA* 2016–2021; *Annals of Statistics* 2022–2024; *Bernoulli* journal 2022
- IMS Fellows Committee, since 2023
- Co-Editor: *Springer Proceedings in Mathematics & Statistics*, Springer Cham, 2023
- 2018 to 2022 Lead Organizer of the conference Mathematical Methods of Statistics at CIRM, Luminy, from 2019 to 2022, and in Frejus, in 2018, France
- 2021 Co-organizer of the conference Mathematical Foundations of Machine Learning, at MFO, Oberwolfach, Germany
- 2021 IMS/Bernoulli World Congress of Probability and Statistics; Session organizer on "Quantum Statistics", Seoul, South Korea
- 2019 Co-organizer of the Conference Foundation of Modern Statistics, on the occasion of Volodia Spokoiny's 60th birthday; WIAS Berlin, Germany
- 2015 Organizer of the Workshop for High-Dimensional Problems and Quantum Physics, at the University Paris-Est Marne, France

Brief Statement

I am very honored to stand for election to the IMS Council. As a statistician, my work is devoted to theory and methodologies to address real-world scientific challenges. I strongly believe that we must actively contribute to the AI era and maintain a primary role in shaping a common future. IMS must remain at the forefront of innovation.

I advocate for interdisciplinary research, support early-career researchers, and promote open and accessible education in applied mathematics. I would be grateful for your support and the opportunity to contribute to the future of IMS.

Tianxi Cai

John Rock Professor of Population and Translational Data Science, Harvard T.H. Chan School of Public Health, and Professor of Biomedical Informatics, Harvard Medical School, Harvard University

https://dbmi.hms.harvard.edu/people/tianxi-cai

Education
- DSc Biostatistics, Harvard University (1996–1999) Boston, MA
- BSc Mathematics, University of Science and Technology of China (1991–1995) P. R. China

Research Interests
- Statistical and machine learning for biomedical applications
- Semi-supervised and weakly supervised learning
- Transfer learning and multi-source learning
- Real world evidence and causal inference
- Electronic health records data analysis
- Natural language processing
- Knowledge graph and representation learning

Previous Service to the Profession
- National and International Committees:
  IMS Committee on the Brown and Zelen Awards (2024–2027)
  COPSS Presidents' Award Committee (2020–2023)
  George W. Snedecor Award Selection Committee (2012–2016)
  Recombinant DNA Advisory Committee (RAC), NIH (2011–2015)
  Program Committee Chair, International Chinese Statistical Association (2012–2013)
  Education Advisory Committee, International Biometric Society ENAR (2010)
  Program Committee Member and Biometrics Section Chair, International Chinese Statistical Association (2011– 2012)
  Executive Committee co-Chair, 2012 ICSA Applied Statistical Symposium
  ASA Biometrics Section Program Chair 2011 Joint Statistical Meeting
  Organizing Committee, IMS–China International Conference on Stat. & Prob. (2009)
  IMS Program Chair, International Biometrics Society ENAR (2008–2009)
- Advisory / Editorial Board member: *Patterns*, Cell Press (2024–); *ESMO Real world Data and Digital Oncology* (2023–)
- Associate Editor:
  Journal of the American Statistical Association Theory and Methods (2011–2017, 2023–)
  Life Time Data Analysis (2010–2018)
  Statistics in Biosciences (2009–2015–)
  Journal of the Royal Statistical Society Series B (Statistical Methodology) (2014–2017)
  Journal of the American Statistical Association Applications and Case Studies (2010–2012)
  Biometrics (2008–2012)

Brief Statement

I am honored to be nominated for the IMS Council election at this pivotal moment in the evolution of our field. The IMS community has been instrumental in shaping my journey as a statistical scientist, and I deeply value its role in advancing statistical science by bridging theory and implementation to drive societal impact. As our discipline expands, I am eager to contribute to ensuring that IMS remains a dynamic and inclusive hub, fostering collaboration across diverse research areas while promoting end-to-end research capability—from theoretical innovation to practical deployment.

I am particularly passionate about mentorship, interdisciplinary connections, and broadening participation, recognizing that early career researchers will drive the next era of innovation. My goal is to help shape the future of IMS by strengthening its societal relevance, methodological rigor, and translational impact, ensuring that our contributions not only advance statistical science but also create meaningful change in the world.

IMS Elections: candidate information

Council candidates continued

Jian Huang

Chair Professor of Data Science and Analytics, Department of Data Science and AI, and Department of Applied Mathematics, The Hong Kong Polytechnic University

https://sites.google.com/view/prof-jian-huang

Education
- B.S. 1985, Mathematics, Wuhan University, Wuhan, Hubei, China
- M.S. 1987, Statistics, Wuhan University, Wuhan, Hubei, China
- Ph.D. 1994, Statistics, University of Washington, Seattle, Washington, USA

Research Interests
- Deep Learning
- Generative Models
- High-Dimensional Statistics
- Large Models for Statistical Analysis
- Statistical Computing
- Bioinformatics and AI for Science
- Biostatistics

Previous Service to the Profession
- President of the Iowa Chapter of the American Statistical Association (1999)
- Associate Editor: *Annals of Statistics* (2013–2015)
- Associate Editor: *Statistica Sinica* (2014–2016)
- Associate Editor: *Statistics and Its Interface* (2014–2018)
- Associate Editor: *JASA* (2024–present)
- Associate Editor: *JRSS(B)* (2024–present)

Brief Statement
I am honored to be nominated for the IMS Council election. I have been privileged to be a permanent member of the IMS for many years. Being based in Hong Kong, I am uniquely positioned to work with the council to facilitate academic exchanges between researchers in probability and statistics from diverse regions. I am also committed to working with the council to advance statistics as a foundational discipline for data science and AI, and to promote collaboration and exchange between these fields.

Po-Ling Loh

Professor of Statistics, Department of Pure Mathematics and Mathematical Statistics, University of Cambridge

https://www.dpmms.cam.ac.uk/~pll28/

Education
- 2009, California Institute of Technology, BS in mathematics with minor in English
- 2013, University of California, Berkeley, MS in computer science
- 2014, University of California, Berkeley, PhD in statistics

Research Interests
- High-dimensional statistics
- Optimization
- Random graphs and networks
- Robustness
- Differential privacy

Previous Service to the Profession
- IMS–Cambridge University Press Textbooks/Monographs statistics series editor (2025–2028)
- IMS Committee on Special Lectures (2020–2023)
- IMS Committee on Nominations (2017–2018, 2021–2022, 2022–2023)
- IMS Committee on New Researchers (2014–2017)
- ASA Publications officer, Section on Nonparametric Statistics (2017–2020)
- Royal Statistical Society research committee (2024–present)
- Area chair, *Annals of Applied Statistics* (2025–present)
- Current AE: *Foundations and Trends in Machine Learning* (2024–present), *SIAM Journal on Mathematics of Data Science* (2024–present), *ACM/IMS Journal of Data Science* (2023–present), *Statistical Science* (2023–present), *New England Journal of Statistics in Data Science* (2021–present), *Book Reviews of the American Mathematical Society* (2021–present), *Journal of the American Statistical Association* (2019–present), *Foundations of Data Science* (2019–present)
- Past AE: *Journal of Machine Learning Research* (2022–2024), *Sankhya Series A* (2022–2024), *Annals of the Institute of Statistical Mathematics* (2020–2024), *Statistica Sinica* (2017–2023)

- Organizer, Probability and Statistics of Discrete Structures (semester program), Simons Laufer Mathematical Institute, Spring 2025
- Organizer, Modern Paradigms on Generalization (semester program), Simons Institute, Fall 2024
- Organizer, Statistical Scalability (semester program), Isaac Newton Institute, Spring 2018

Brief Statement

I am truly honored to be nominated for the IMS Council. As statistics continues to occupy a critical role in the evolution of modern machine learning and data science, I believe I am uniquely positioned to help influence the direction of the IMS. I am equally comfortable in scientific meetings among statisticians as among probabilists, theoretical computer scientists, and information theorists, and I believe my connections and interdisciplinary perspectives would enhance the IMS community. I also have strong connections to the research communities in both the US and Europe.

In both my personal and professional life, I have learned to become a good listener; I believe my connections to different research communities would enable me to gather concerns from diverse subgroups and help implement positive changes. Finally, I have a longstanding commitment to mentorship of junior researchers and women, and I would be a strong advocate of these groups in decision-making on behalf of the council.

Sayan Mukherjee

Alexander von Humboldt Professor in AI at the University of Leipzig and the Max Planck Institute for Mathematics in the Sciences. Adjunct Professor of Statistical Science, Mathematics, Computer Science, and Biostatistics at Duke University

https://sayanmuk.github.io/
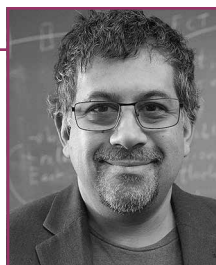
Education

- BSE in Electrical Engineering from Princeton 1992
- MS In Applied Mathematics and Physics from Columbia in 1996

- PhD from MIT in 2001 from the AI Lab and the Center for Computational Learning

Research Interests

- Bayesian methodology
- Computational and statistical methods for statistical genetics
- Quantitative genetics
- Cancer biology
- Molecular ecology
- Morphology
- Discrete Hodge Theory
- Dynamical systems
- Geometry and topology for inference
- Machine learning
- Stochastic geometry and topology

Previous Service to the Profession

- Fellow of the IMS
- IMS Invited Program Chair for 2018 Joint Statistical Meetings 2018
- Ten Lectures on Topological Data Analysis: NSF–CBMS Regional Conference Series in Probability and Statistics
- Co-organizer of over 10 workshops including at the Isaac Newton Institute at Cambridge and Oberwolfach
- MS Coordinator for the Department of Statistical Science at Duke
- Invited lecturer for the Joint Math Meetings

Brief Statement

I can move between statistics, mathematics, and computer science, and computational biology in a seamless way. I can represent and support a diverse set of research topics. I have experience in both the US academic system as well as the European academic system. I was on a commission for the health minister of Germany to help with the digitization of health records and went to the G20 for health ministers in Ghandinagar India. I have seed funding for two startups here in Leipzig: one is called play my math (we integrate math and music for 6–10 year olds) the other is an avatar coupled with a large language model to help teachers and medical professionals working with sick kids. I will close with this: https://www.humboldt-foundation.de/en/explore/newsroom/dossier-alexander-von-humboldt-professorship/sayan-mukherjee

Council candidates *continued*

Victor M. Panaretos

Professor of Mathematical Statistics,
Mathematics, EPFL

https://people.epfl.ch/victor.panaretos

Education
- PhD, UC Berkeley, 2007
- BSc, Athens University of Economics and Business, 2004

Research Interests
- Functional data analysis
- Geometrical statistics
- Inference for random processes
- Statistical inverse problems
- Statistical optimal transport
- Statistics in the natural sciences

Previous Service to the Profession
- President of the Bernoulli Society (2023–2025)
- Member of the ISI Council (2017–2021)
- IMS Task Force on Review of IMS Named and Medallion Lectures (2020–2021)
- IMS Committee on Nominations (2020–2021)
- IMS Committee to Select Editors (2020–2021)
- Publicity Chair of the Bernoulli Society (2018–2019)
- Editor, *Bernoulli News* (2011–2015)
- Associate Editor for the *Annals of Statistics* (2018–2021)
- Associate Editor for the *Annals of Applied Statistics* (2011–2018)
- Associate Editor for *Biometrika* (2011–)
- Associate Editor for *Electronic J. of Statistics* (2010–18, 2022–)
- Associate Editor for *JASA Theory & Methods* (2017–)

Brief Statement
In an era of scientific shifts, where statistics meets data science, and probability looks toward pure mathematics, it is crucial to maintain our discipline's unity and distinct scientific culture. The IMS leads the way in this regard, curating and uniting our disciplines' leading journals, awards, and conferences according to our core values. Owning "the means of production" and organising our scientific lives for ourselves rests on the voluntary service of the scientific collective — if we don't do it, others will do it for us! These are key principles that I see the IMS embodying and that would guide me in Council.

Alexander Rakhlin

Professor, Brain & Cognitive Sciences and
Institute for Data, Systems, and Society, MIT

http://www.mit.edu/~rakhlin/

Education
- BA in Mathematics, BA in Computer Science, Cornell University, 2000
- PhD, MIT, 2006

Research Interests
- Mathematical statistics
- Machine learning
- Decision making
- Online methods

Previous Service to the Profession
- Chair of the Interdisciplinary Doctoral Program in Statistics, MIT, 2018–present
- Associate Editor, *Mathematical Statistics and Learning*, 2024–present
- Associate Editor, *The Annals of Statistics*, 2016–2018
- Associate Editor, *Bernoulli Journal*, 2019–2022
- Co-Program Chair, Conference on Learning Theory, 2016
- Action Editor, *Journal of Machine Learning*, 2013–2019

Brief Statement
I am honored by the nomination to serve on the IMS Council. My career in statistics has been greatly enriched by the IMS community, and I am eager to contribute to its continued excellence. In today's rapidly evolving landscape, statistics is at the heart of modern innovations—from powering decision-making systems and shaping large language models to advancing reinforcement learning and AI. If elected, I will work to strengthen our support for emerging scholars, promote cutting-edge research and education, and ensure that the IMS remains a dynamic leader in addressing the challenges of our increasingly data-driven world.

Veronika Ročková

Bruce Lindsay Professor of Econometrics and Statistical in the Wallman Society of Fellows, Booth School of Business, University of Chicago

http://veronikarock.com/

Education

- PhD in Biostatistics, 2013, Erasmus University Rotterdam (The Netherlands)
- MSc in Biostatistics, 2009, Universiteit Hasselt (Belgium)
- MSc in Mathematical Statistics, 2010, Charles University (Czechia)
- BSc in General Mathematics, 2007, Charles University (Czechia)

Research Interests

- Bayesian statistics
- Non-parametric Bayes
- High-dimensional decision theory
- Machine Learning

Previous Service to the Profession

- Associate Editor for the *Annals of Statistics* (2022–present)
- Associate Editor for the *Journal of the American Statistical Association* (2023–present)
- Associate Editor for the *Journal of the Royal Statistical Society* (2023–present)
- Associate Editor for *Operations Research* (2023–present)
- Program Chair of the Section on Bayesian Statistical Science of the American Statistical Association in 2020
- NSF Review Panel in 2019
- 2023–2024 IMS Committee to select editors of *AoS*

Brief Statement

I am honored to be considered as one of the nominees for election to the IMS council. As an umbrella institution for both Probability and Statistics, it is important that IMS keeps thriving in the era of data science and AI and continues to be a dynamic community of supportive researchers working on cutting-edge topics that can create a lasting value for the society. I am personally vested in making IMS approachable, resourceful and welcoming to future generations of researchers from various backgrounds.

Hongtu Zhu

Professor of Biostatistics, Statistics and Operational Research, Computer Science, Genetics, and Radiology, Biostatistics, University of North Carolina at Chapel Hill

https://www.med.unc.edu/bigs2/

Education

- PhD, 2000, The Chinese University of Hong Kong

Research Interests

- Functional Data Analysis
- Parametric and Nonparametric Diagnosis and Inference
- Reinforcement Learning
- Deep Learning
- Big Data Integration
- Neuroimaging Data Analysis
- Large Language Model
- Statistical Genetics
- Causal Inference
- Recommendation System
- Medical Imaging Analysis

Previous Service to the Profession

- Associate Editor:
  2009–2011, *Biometrics*
  2007–2018, *Statistics and its Interface*
  2011–2017, *Neurosurgery*
  2011– , *Statistica Sinica*
  2012–2018, *Journal of American Statistical Association, A&CS*
  2013–2018, *Annals of Statistics*
  2014–2018, *Journal of American Statistical Association, T&M*
  2015–2020, *Statistics in Biosciences*
  2015–2021, *Computational Statistics and Data Analysis*
  2019–2023, *Journal of Royal Statistical Society, Series B*
- Statistical Consultant and Reviewer, *New England Journal of Medicine: AI*, 2024–
- Editor for *Application & Case Studies*
- Coordinating Editor, *Journal of American Statistical Association*, 2025–2027
- Steering Committee Member, ASA Statistics up AI group, 2024–
- Founder of ASA Section on Statistics in Imaging

Council candidates continued

- Student Award Committee, ICSA 2006 Applied Statistics Symposium
- International Chinese Statistical Association Board of Directors, 2012–2014
- ICSA Mentor–Mentee Program, 2024–
- Regular member of Promoting the Practice and Profession of Statistics Committee, ASA, 2017–2018
- One of eight founding members of Section on Statistics in Imaging in ASA
- Acting Chair 2012–2013 of Section on Statistics in Imaging in ASA
- ENAR Education Advisory Committee, 2011
- ENAR Student Award Committee, 2010–2013
- SBSS Student Award Committee, 2012
- Committee for the IMS Hall Prize, 2023–2026
- Co-chair:
  Neuroimaging Data Analysis workshop at Banff, 2016
  Tsinghua–Sanya Mathematics and Statistics Workshop, 2016
  Information Processing in Medical Imaging (IPMI), 2017
  Workshop on Applications-Driven Geometric Functional Data Analysis, 2017
  Recent Advances in Statistical Analysis of Imaging Data, 2020
  Statistical Learning Methods for Modern AI, 2021
  Reinforcement Learning for Intelligent Transportation Systems Workshop, IJCAI, 2021
  KDD Workshop on Decision Intelligence and Analytics for Online Marketplaces, 2022–2023
  Reinforcement Learning Methods and Applications, 2022
  IMSI Workshop: Challenges in Neuroimaging Data Analysis, 2024
  NeuroConnect 2024: Advancing Brain Network Research Workshop, 2024
  MBZUAI Workshop on Statistics for the Future of AI, 2024
  Foundation Models and Their Biomedical Applications: Bridging the Gap, August 17–22, 2025
- One of four Program Leaders and Program Chair, SAMSI summer workshop on Neuroimaging Data Analysis (NDA), 2013
- Program Leader for SAMSI full-year program on Challenges in Computational Neuroscience (CCNS) with five workshops, one short course, and two regular courses, 2015–2016

Brief Statement

I am honored to be nominated for the IMS Council. If elected, I will work to strengthen IMS's leadership in mathematical statistics and AI. With expertise in deep and reinforcement learning and big data integration, I have led efforts to combine diverse data sources in biomedical science, promoted statistics in e-commerce and organized panel discussions at ASA and JSM. There are many challenges ahead, from ensuring that statistical methods remain at the forefront of AI advancements to fostering cross-disciplinary engagement. I am committed to working with the Council to address these challenges and to position IMS as a leader in the evolving landscape of mathematical statistics, machine learning, and AI.

Don't forget to vote!

Have you voted yet? The IMS Council elections are open until June 21, 2025

https://www.imstat.org/elections

IMS meetings around the world
Joint Statistical Meetings

2025 Joint Statistical Meetings (including 2025 IMS Annual Meeting)
August 2–7, 2025, Nashville, USA

w https://ww2.amstat.org/meetings/jsm/2025/

The 2025 JSM will be held at the Music City Center.

Late-breaking session proposals: A late-breaking session covers one or more technical, scientific, or policy-related topics that has arisen in the one-year period before the JSM in which the session is proposed to appear. Alexandra Schmidt, JSM 2025 program chair, is accepting proposals via the online system (https://ww3.aievolution.com/JSMAnnual2025/) from mid-February to April 15. Proposals should include the session title and description, the format (paper or panel), names of the session organizer, chair, and all speakers, panelists, and/or discussants, contact information for all participants, title for each presentation (if paper session), and links to relevant technical reports, if applicable.

JSM dates for 2026–2030

JSM 2026	**IMS Annual Meeting**	**JSM 2028**	**IMS Annual Meeting**	**JSM 2030**
August 1–6, 2026	**@ JSM 2027**	**August 5–10, 2028**	**@ JSM 2029**	**August 2028 [dates**
Boston, USA	**August 7–12, 2027**	**Philadelphia, USA**	**August 4–9, 2029**	**and location TBC]**
	Chicago, USA		**Seattle, USA**	

Frontiers in Statistical Machine Learning (FSML)
August 2, 2025. Nashville, USA

w https://fsmlims.wixsite.com/fsml25

This inaugural IMS co-sponsored workshop aims to ignite conversations and collaborations at the intersection of statistics and machine learning. Featuring peer-reviewed, open-call submissions for four-page extended abstracts, this event will showcase ideas in statistical machine learning that deserve broader attention within the statistical community.

The workshop will take place on August 2, 2025, at Vanderbilt University in Nashville, Tennessee, just ahead of the 2025 JSM.

There will be two main streams in the 2025 workshop:
The Science of Deep Learning, and **Statistical Learning from Heterogeneous Data Sources and Generalization**.

Dates: paper submission deadline (strict) March 2, 2025. Notification of acceptance by May 2, 2025. Final paper submission by July 2, 2025.

NEW Travel awards: The IMS is pleased to offer $500USD travel awards to support participation in the workshop. The top 10 applicants, determined based on the quality of their paper submissions, will receive these awards. (Not eligible if you have applied for the Hannan Graduate Student or New Researcher Travel Award, or the NRC Conference Travel Cost Reimbursement.)

IMS New Researchers Conference *NEW*
July 31–August 2, 2025. Nashville, USA

w https://nrc2025.github.io/

The IMS Meeting of New Researchers in Statistics and Probability (a.k.a. the New Researchers Conference or NRC) will be held at Vanderbilt University Medical Center in Nashville, Tennessee, July 31–August 2, 2025 (immediately before JSM).

Junior researchers are highly encouraged to apply! The deadline is April 30.

NRC promotes networking and interaction among new researchers in the fields of statistics, biostatistics, and probability, including those who expect to hold tenure-track positions in the near future. Attendees have the opportunity to present their research through brief expository talks and posters and meet other early-career researchers. There will be panels and presentations by senior researchers on topics including publishing, grant applications, collaboration, and mentoring.

More IMS meetings

High-dimensional statistics, applications, and distributional shifts:
Workshop in celebration of Peter Bühlmann's 60th birthday
June 25–27, 2025
Zürich, Switzerland

w https://math.ethz.ch/fim/activities/conferences/High-dimensional-statistics-applications-and-distributional-shifts.html

The goal of this IMS co-sponsored conference, on the occasion of Peter Bühlmann's 60th birthday, will be to present recent advances at the interface of statistical theory, data science, and machine learning. With a rich program of keynote presentations and discussions, the event aims for a lively discussion of the trends shaping modern statistics and to bring together researchers from diverse fields.

We unfortunately can't offer the possibility to present contributed papers, posters, etc., as we have a limited time capacity (two-and-a-half days for 24 speakers) and the format of the conference does not allow for it.

14th International Conference on Extreme Value Analysis (EVA 2025)
June 23–27, 2025
Chapel Hill, USA

w https://eva2025.unc.edu/

Registration and abstract submission are now open for EVA2025.

EVA2025 is the 14th International Conference on Extreme Value Analysis and is hosted by the University of North Carolina at Chapel Hill, USA, from June 23 to June 27, 2025. Topics include all aspects of extreme value analysis, probabilistic and statistical models and their applications. Activities include plenary, invited and contributed paper sessions, a poster competition, a student paper competition, and a data analysis challenge. There will also be a short course (on June 22), with presentations by Anne Sabourin (Université Paris Cité) and Anthony Davison (EPFL).

The webpage lists the invited paper sessions and plenary speakers. [The deadline has now passed for submitting an abstract for either a contributed paper or a poster.] There is a competition for the best student paper and another for the best poster. The data competition was announced earlier but the conference website also has details of that. The registration fee includes all lunches and coffee breaks during the conference and the Monday evening reception. The conference banquet will take place on Thursday June 26 and requires a separate fee. Accommodation is available in student dormitories and can be booked through the registration page; we are in the process of updating the list of local hotels. We are also planning a Wednesday afternoon excursion, details to be announced on the conference website.

Any queries may be addressed to the conference organizers at eva2025@unc.edu.

This conference is co-sponsored by the Institute of Mathematical Statistics and the Bernoulli Society.

The 10th Workshop on Biostatistics and Bioinformatics
May 9–11, 2025, Atlanta, GA

w https://math.gsu.edu/yichuan/2025Workshop/

Biostatistics and Bioinformatics have been playing very important roles in scientific research fields in recent years. The goal of this tenth workshop is to stimulate research and to foster the interaction of researchers in the research areas.

The keynote speaker is Dr. **Heping Zhang**, the Susan Dwight Bliss Professor of Biostatistics, Professor in the Child Study Center and Professor of Statistics and Data Science at Yale University.

UPDATE: A short course, "Bayesian Statistics, Designs, Sample Size Estimation, and Decision Making for Clinical Trials," taught by Dr. Yuan Ji, will be offered on the afternoon of Friday, May 9, 2025.

See the website for the call for papers on Topics in Big Data Analysis, Biostatistics and Bioinformatics:
https://math.gsu.edu/yichuan/2025Workshop/SpringerBook2025-CFP.pdf

NISS Writing Workshop for Junior Researchers 2025
Prior to JSM On-Line via Zoom: Fridays, July 18 & 25, 2025
In-person at JSM in Nashville, TN: Sunday, August 3, 2025

w https://www.niss.org/events/writing-workshop-junior-researchers-2025-day-1-online

Once again this very popular short course will be hosted by NISS. This year it will be hybrid, with virtual lectures and meetings with your mentor prior to the JSM on two Fridays (July 18 and 25), and an in-person session at JSM to be held on Sunday, August 3, 2024. Support is also provided by the ASA and other sponsoring statistical organizations. ***If you are a recent graduate of a doctoral program and want to improve your communication skills, then this event is for you!***

You can register via the URL above, but please note that you will need to submit a copy of your writing sample during this online registration. This submission must be much more than simply an abstract. You only need to submit once, as your one time submission creates a submission for both Fridays automatically. Please plan to attend both Fridays (July 18 and July 25).

Pre-registration deadline: June 30, 2025

The Fourth IMS International Conference on Statistics and Data Science (ICSDS)   *NEW*
December 15–18, 2025
Seville, Spain

https://sites.google.com/view/ims-icsds2025/

The objective of ICSDS is to bring together researchers in statistics and data science from academia, industry, and government in a stimulating setting to exchange ideas on the developments of modern statistics, machine learning, and broadly defined theory, methods, and applications in data science.

There will be a student paper award competition, in addition to plenary sessions, and invited, contributed and poster sessions. Young researchers are particularly encouraged to participate, as a portion of the invited sessions will be designated for young researchers.

More information coming soon. We look forward to seeing you in Seville in December 2025!

2025 WNAR/IMS Annual Meeting   *UPDATED*
June 15–18, 2025
Whistler, BC, Canada

w https://wnar.org/wnar2025

The 2025 WNAR/IMS meeting will be at the Westin Resort & Spa in Whistler from June 15–18. There will be short courses, a plenary lecture, invited and contributed sessions, young investigator events, and a Student Paper Award with oral sessions. Lihong Qi (UC Davis) is the WNAR Program Chair, Jacob Bien (USC) is the IMS Program Chair, and Catherine Lee (UCSF), Yuchen Han (CU Anschutz), and Zhixin Lun (CU Anshutz) are serving on the program committee along with WNAR President David Rocke (UC Davis; co-chair). The Local Organizing Committee chair is Michelle Miranda (University of Victoria). Questions to wnarprogramchair@gmail.com.

Whistler is 75 miles (120 km) north of Vancouver. The town is a compact, chalet-style, pedestrian village at the base of the Whistler and Blackcomb mountains. Whistler is a year-round destination that provides a true Canadian west-coast mountain experience and offers a wide selection of restaurants, bars, spas, boutiques, and activities. Whistler's summer experiences offer a range of adventures from the legendary Bike Park and championship golf courses to glacier-fed lakes and alpine hikes. Visit https://www.whistler.com/ to learn about this beautiful area.

ASA–IMS Spring Research Conference (SRC) on Statistics in Industry and Technology   *UPDATED*
June 3–5, 2025, New York, USA

w https://sites.google.com/view/src-2025

The ASA–IMS Spring Research Conference (SRC) is an annual conference sponsored by IMS and the ASA Section on Physical and Engineering Sciences (SPES). Although historically emphasizing industrial statistics, design of experiments, quality and reliability, the meeting increasingly emphasizes modern methods on statistics, data science, machine learning and AI in statistical methodology, with diverse applications encompassing all areas of applied sciences. A number of student scholarships will be provided to selected graduate students who submit contributed papers.

The keynote speakers are Tirthankar Dasgupta (Rutgers University) and Samuel Kou (Harvard University). The banquet speaker is Brad Jones (JMP Distinguished Research Fellow).

The venue is Baruch College, City University of New York.

BNP 14: The 14th International Conference on Bayesian Nonparametrics
June 23–27, 2025, Los Angeles, USA

w https://bnp14.org/

The 14th International Conference on Bayesian Nonparametrics will be hosted by the Department of Biostatistics and the Department of Statistics & Data Science at UCLA in Los Angeles, United States, on June 23–27, 2025. A workshop on Predictive Inference is currently planned for the afternoon of June 22nd, 2025.

Two workshops, on the **25th Anniversary of the Dependent Dirichlet Process** and on **Bayesian Predictive Inference,** are planned for June 22. The first **BioPharm Section Meeting** will follow BNP14 in the afternoon of June 27; details forthcoming at https://isba-biostatspharma.github.io/

44th Conference on Stochastic Processes and their Applications 2025
July 14–18, 2025, Wrocław, Poland

w https://spa.pwr.edu.pl/

SPA Conferences, organised by the Bernoulli Society and co-sponsored by IMS, are the most important series of international meetings on the theory and applications of stochastic processes. Invited speakers: Benoit Collins (Kyoto); Giuseppe Cannizzaro (Warwick), **Doeblin Lecture;** Alessandra Faggionato (La Sapienza), **Doob Lecture;** Thomas Hutchcroft (California Inst. of Tech.); Tomasz Komorowski (Polish Academy of Sciences and UMCS); Florence Merlevède (University Paris-Est Marne-la-Vallée), **Lévy Lecture;** Roberto Imbuzeiro Oliveira (IMPA); Ron Peled (Tel Aviv); Sunder Sethuraman (Arizona), **Schramm Lecture;** Justin Salez (Paris Dauphine); Cristina Toninelli (Paris Dauphine and CNRS); Itô Lecturer TBD. Organizing committee members are Krzysztof Bogdan and Krzysztof Dębicki. You can pre-register at https://spa.pwr.edu.pl/preregistration.

More IMS meetings

2026 IMS Asia Pacific Rim Meeting (IMS–APRM)
June 13–16, 2026. Hong Kong, China
w TBC

The IMS Asia Pacific Rim (IMS-APRM) conferences provide an excellent forum for scientific communications and collaborations for researchers in Asia and the Pacific Rim, and promote communications and collaborations between researchers in this area and those from other parts of the world.

The 2026 Local Organizers are Xinyuan Song and Junhui Wang.

More details coming; please mark your calendars.

2026 IMS Annual Meeting
July 6–9, 2026
Salzburg, Austria

More details TBD. The Local Chair is Arne Bathke.

Bernoulli–IMS 12th World Congress in Probability & Statistics
July 24–28, 2028
Singapore
w TBC

The Institute of Mathematical Statistics annual meeting will be held at the 12th Bernoulli–IMS World Congress in Probability and Statistics, in Singapore.
Details to follow.

Asia-Pacific Seminar in Probability and Statistics
Ongoing and online
w https://sites.google.com/view/apsps/home

The Asia-Pacific Seminar in Probability and Statistics (APSPS) is a monthly online seminar, broadcast on a mid-month Wednesday via Zoom. The seminar series was created as a permanent forum for good research in the field. Topics include: probabilistic models for natural phenomena, stochastic processes and statistical inference, statistical problems in high-dimensional spaces, asymptotic methods, statistical theory of diversity. The organizers—Sanjay Chaudhuri, Mark Holmes, Estate Khmaladze (chair), Krishanu Maulik, Spiro Penev, Masanobu Taniguchi, Lijiang Yang, and Nakahiro Yoshida—seek an emphasis on novelty, beauty, and clarity. Presentations are intended to be accessible to good postgraduate students in probability and mathematical statistics.

If you are interested in receiving email announcements about the next speakers, send an email to any of the Board members listed above.

INFORMS Applied Probability Society Conference
June 30–July 3, 2025
Atlanta, Georgia, USA
w https://informs-aps.isye.gatech.edu/

The next INFORMS APS Conference will be held June 30–July 3, 2025, in the Exhibition Hall of the Georgia Tech campus in Atlanta, GA.

This meeting immediately follows the Summer School (June 25–29, 2025: see the list of speakers at https://informs-aps.isye.gatech.edu/summer-school/speakers).

One World Approximate Bayesian Inference (OWABI) Seminar
Ongoing, online

UPDATED

w https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar

After five seasons of the One World Approximate Bayesian Computation (ABC) Seminar (https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar/owabc/), launched in April 2020 to gather members and disseminate results and innovation during those weeks and months under lockdown, we have now decided to launch a "new" seminar series, the One World Approximate Bayesian Inference (OWABI), to better reflect the broader interest and scope of this series, which goes beyond ABC. In particular, simulation-based inference and ML related techniques will have a particular role.

Feel free to contact any of the organisers if you want to suggest yourself or someone else for a talk.

All webinars will be held on Zoom/MS Teams, with a link shared on the email sent via the mailing list. So if you are interested in the OWABI seminar and would like to hear from us monthly about the announced speaker, title and abstract and, most importantly, be able to join the talk, please register at https://listserv.csv.warwick.ac.uk/mailman/listinfo/abc_world_seminar.

A "One World ABI" playlist on the ISBA YouTube channel, with all past OWABC and current OWABI talks is available at https://www.youtube.com/playlist?list=PLUaj_wLsosMTjqTN8kmn6nNo7YtLV6-1Z

This webinar is part of the larger One World seminar initiative [*see right*].

One World Probability Seminar (OWPS): Ongoing and online
w https://www.owprobability.org/one-world-probability-seminar/
Thursdays, 14:00 UTC/GMT. Please subscribe to the mailing list for updates: https://www.owprobability.org/mailing-list

Other meetings and events around the world

The Past, Present and Future of Statistics in the Era of AI
May 8–10, 2025 *NEW*
Washington DC, USA

w https://statistics.columbian.gwu.edu/gw-stat-90

The Department of Statistics at George Washington University is celebrating its 90th anniversary, marking nearly a century of significant contributions to statistical education and research. The department will host the conference, which aims to foster deeper understanding and collaboration by bringing together established researchers, emerging scholars and industry professionals to discuss the evolving role of statistics in the context of modern AI advancements.

The conference features two short courses ("Statistical Foundations of Deep Learning," and "Introduction to Reinforcement Learning"), two plenary talks, multiple invited talk sessions, one contributed poster session, and one invited panel. The two plenary speakers are Prof. **Annie Qu** (UC Irvine) and Prof. **Susan Murphy** (Harvard University).

Registration for the main conference (May 9 and 10) and short courses (May 8) are now open. We are also accepting **abstract submissions for the poster session**, which will be on May 9. Limited travel awards will be offered to poster presenters.

Triangle Symposium on Statistics and Data Science (TSSDS) *NEW*
May 12–13, 2025
Raleigh, United States

w https://statistics.sciences.ncsu.edu/2025-triangle-symposium-on-data-science/

The First Triangle Symposium on Statistics and Data Science (TSSDS) will be held on May 12–13, 2025, at North Carolina State University in Raleigh, NC, in collaboration with Duke University and UNC Chapel Hill. The symposium will promote the works of local faculty, students, and researchers and bring in top researchers from around the country and the world. The conference program includes two plenary talks, four invited sessions, two rapid talk sessions, and a poster session. Interested persons may fill out the Google form on the conference website to express initial interest in participating. A limited number of travel supports will be available to graduate students, post-docs, and new researchers who will present posters to attend the conference.

Maryland Summer School in Statistics and Machine Learning *NEW*
May 29–31, 2025
College Park, United States

w https://stat.umd.edu/summer-courses.html

The Statistics Program and the Department of Mathematics at the University of Maryland are pleased to announce the inaugural Maryland Summer School in Statistics and Machine Learning, to be held from May 29 to 31, 2025. This event will feature a series of three half-day short courses on a range of contemporary topics in statistics and machine learning, including the foundations of deep learning, network analysis, topological data analysis, random matrix theory, small area estimation, causal inference, and health data analysis, among others.

Announce your meeting!

Announce it as early as you can, ideally as soon as you have a date and location. You can always add in the details later on.

Submit the information to imstat.org/ims-meeting-form/

More meetings

International Workshop on Applied Probability (IWAP 2025)   *NEW*
June 9–13, 2025
Raleigh, USA

w https://iwap2025.weebly.com/

The 11th International Workshop on Applied Probability (IWAP 2025) will be held on June 9-13, 2025 at North Carolina State University, Raleigh, NC. The workshop will consist of plenary, invited and contributed talks during Monday-Thursday, June 9-12 and an excursion to the Greensboro Science Center on Friday, June 13. The relevant website is https://iwap2025.weebly.com/. The IWAP is among the major international conferences in applied probability, providing a forum for disseminating and discussing high-quality research in this field. IWAP 2025 will bring together researchers and scientists engaged in applied probability, covering methodology and applications from diverse fields, including mathematics, statistics, business, finance, decision processes, computer science, and the social and health sciences. Please see the conference website for a detailed list of topics, as well as information on the conference program, registration and housing. Note that the early bird registration deadline is March 31, 2025. To submit an abstract for either an individual contributed talk or a topic contributed session, use the form found here.

OSD 2025 – 16th International Conference on Order in Statistical Data: Order Statistics and Beyond (ODOS)   *NEW*
June 10–13, 2025
Aachen, Germany

w https://www.osd2025.isw.rwth-aachen.de/cms/~bjvtqt/osd2025-isw/?lidx=1

We are pleased to announce the 16th International Conference on Order in Statistical Data: Order Statistics and Beyond (ODOS), which will be hosted at RWTH Aachen University, Germany, from June 10th to 13th, 2025. This event marks the 25th anniversary of first OSD conference in Mysore, India, and celebrates 30 years of Generalized Order Statistics, in honor of Udo Kamps. The conference will cover all aspects of order in statistical data, including but not limited to: Accelerated Life Testing, Bounds, Censoring Methodology, Characterizations, Distribution Theory and Related Probability Models, Information and Entropies, Models of Ordered Data, Ordinal Data, Reliability Theory and Survival Analysis, Stochastic Orders, Statistical Inference for Ordered and Censored Data, as well as interesting related applications.

Keynote Speakers: N. Balakrishnan, McMaster University, Hamilton, Ontario, Canada; Eric Beutner, Vrije Universiteit Amsterdam, The Netherlands; Maria Longobardi, Università di Napoli Federico II, Naples, Italy; H. N. Nagaraja, Ohio State University, Columbus, Ohio, USA; Jorge Navarro, University of Murcia, Spain. Distinguished Participant: B.C. Arnold, University of California, Riverside, USA.

International Conference on Statistics and Data Science at Vancouver   *NEW*
June 23–25, 2025
Vancouver, Canada

w https://icsds.github.io/2025/

This International Conference on Statistics and Data Science will be held in Vancouver, Canada, from Monday, June 23 through Wednesday, June 25, 2025. The objective of the conference is to bring together researchers in statistics and data science from academia, industry, and government in a stimulating setting to exchange ideas on the developments of modern statistics, machine learning, and broadly defined theory, methods, and applications in data science.

The conference will take place at Harbour Centre, Simon Fraser University, located at 515 W. Hastings Street, Vancouver, BC. (Map: http://goo.gl/maps/hRji5) Harbour Centre is housed in Vancouver's historic Spencer building, at the heart of downtown and the vibrant Gastown area. It is surrounded by shops, restaurants, hotels, and entertainment options, all just minutes away. The venue is conveniently located across from Waterfront Station, Vancouver's main transportation hub, which connects visitors via SkyTrain, SeaBus, and West Coast Express to all parts of Metro Vancouver and beyond. The Canada Line SkyTrain provides a direct link between Waterfront Station and Vancouver International Airport. Additionally, ample public parking is available near the campus.

If you have any question, please contact the program chair, Jiguo Cao, at jiguo_cao@sfu.ca.

PrefStat 2025: Second International Summer School on Preference Learning for Ranking and Ordinal Data
NEW

June 30–July 4, 2025
Oslo, Norway

w https://www.prefstat.org/

PrefStat organizes a series of summer schools designed to provide a comprehensive overview of preference statistics, a rapidly growing field that has gained significant attention in recent years due to the numerous application fields involving human preferences (from recommender systems to Large Language Models, from surveys and psychological experiments to marketing, economics, and political science). PrefStat thus establishes a series of high-level courses on cutting-edge topics in the specific context of Statistical Learning from Preference Information, or Preference Learning.

Preference learning is concerned with all data analyses involving preferences, rankings, ratings, clicking, or any kind of ordinal data. It entails modeling experiments involving a set of assessors (experts, judges, users) who express order relations about a set of items, thus being a subfield of both supervised and unsupervised statistical learning.

The school will provide a deep introduction to the topic and insight into more challenging tasks that are of interest in modern applications, such as handling partial, unstructured, exogenous information, individual preference prediction, and importance feature selection.

PrefStat 2025 will combine lectures delivered by internationally leading scholars on the specific designated topic and supervised practical tutorials.

MaSeMo: Markov, Semi-Markov Models and Associated Fields (from Theory to Application and Back)
NEW

July 1–4, 2025
Paris, France

w https://masemo.sciencesconf.org/

Markov chains, semi-Markov chains, and more broadly, Markov processes and their hidden variants constitute a rich and versatile family of stochastic models with applications spanning a wide range of fields, including population dynamics, epidemic modeling, seismology, speech and activity recognition, and reliability analysis. Despite their widespread use, ongoing theoretical and algorithmic advancements are essential to tackle emerging challenges in real-world problems, such as those involving complex observations, multiple interacting hidden dynamics, or control scenarios with constraints. These models have been explored from diverse perspectives across methodological communities—such as process statistics, computational statistics, and optimal control—and applied domains, including signal processing, ecology, and medicine. As part of the ANR HSMM-INCA project, the national workshop PMSMA was organized in 2023 to bring together the French statistical community engaged in these topics.

The workshop has two key objectives: expanding PMSMA scope to an international audience and extending its thematic range. Hidden Markov and semi-Markov models are often developed independently within non-statistical communities, such as signal processing and artificial intelligence. The upcoming workshop seeks to bridge these gaps by fostering dialogue and collaboration across disciplines, particularly on topics at the intersection of these fields. We hope the event will provide a framework to share the latest developments, encompassing theoretical insights, modeling techniques, inference methods, decision-making strategies, and practical applications.

International Conference on Monte Carlo Methods and Applications (MCM) 2025
NEW

July 28–August 1, 2025
Chicago, USA

w https://ccbatiit.github.io/mcm2025/

The biennial International Conference on Monte Carlo Methods and Applications (MCM) (formerly IMACS Seminar on Monte Carlo Methods) is one of the most prominent conference series devoted to research on stochastic simulation and Monte Carlo methods. The 15th edition, MCM 2025, will take place from July 28 to August 1, 2025, at the Illinois Institute of Technology, Chicago, US. MCM 2025 brings together a multidisciplinary community of Monte Carlo researchers and practitioners to share their latest discoveries.

More meetings

8th IMA Conference on Mathematics in Defence and Security Mathematics for Decision Support
October 15, 2025
Newcastle upon Tyne, United Kingdom

w https://ima.org.uk/26135/8th-ima-conference-on-mathematics-in-defence-and-security-mathematics-for-decision-support/

Mathematics is at the heart of evidence-based decision support; however, any decision requires data collection, data and signal processing, communications and communication systems to reduce cognitive burden for the decision maker and improve decision making. It is also increasingly common for AI to play a role in summation and processing, meaning that evidence is even more varied in its utility and applicability. This conference will explore both the state of the art in terms of data curation, signal processing, communication and AI to support decision-making, as well as looking at the impact of these systems on cognitive load. Importantly, this conference will focus on research that can start to explore the confluence of these areas in order to underpin decision making in a rigorous and integrated system. As mathematics begins to underpin more of the decision-making process, so it becomes more important that mathematics is integrated and focussed on providing understandable evidence to the decision maker. Therefore, how the mathematical evidence is then communicated becomes as important as how the mathematics is undertaken. The conference will aim to bring together a wide variety of participants applying a variety of mathematical methods with defence and security applications. Abstracts will be considered for the conference based on a 300-word abstract for oral presentation. Abstracts should be submitted by 23rd May 2025 via https://my.ima.org.uk/

Royal Statistical Society 2025 International Conference
September 1–4, 2025
Edinburgh, UK

w https://rss.org.uk/training-events/conference-2025/

The RSS conference brings together the statistics and data science community from across the UK, Europe and around the world to share knowledge and learn about latest developments. With over 700 attendees from more than 40 countries and all sectors using statistics and data, this is a must-attend event for professionals, researchers, students and everyone interested in the cutting edge of statistical methodology and the impactful application of statistics and data science. The conference programme will feature top keynote speakers, invited topic sessions, professional development workshops, contributed and rapid-fire talks, and poster presentations, as well as many opportunities for networking.

Bayesian Biostatistics Conference (Bayes 2025)
October 22–24, 2025
Leiden, The Netherlands

w https://www.bayes-pharma.org/

The Bayes Pharma conference is dedicated, since 2010, to advancing the application of Bayesian statistics within the biomedical and pharmaceutical sectors. Its primary objectives include promoting Bayesian methodologies in biomedical sciences, showcasing practical case studies across clinical and non-clinical environments, and updating participants on the latest methodological advancements in Bayesian statistics pertinent to medicine and public health. Additionally, the conference aims to provide statisticians with opportunities to adapt to the evolving landscape of the biopharmaceutical industry.

The event spans three days, commencing with a training course focused in 2025 on Bayesian and Causal Networks for Clinical and Epidemiological Data. This is followed by two days filled with keynote presentations and contributed talks from experts in the field.

The upcoming Bayes 2025 conference is scheduled for October 22-24, 2025, in Leiden, The Netherlands. Participants can anticipate a comprehensive program featuring training sessions, keynote addresses, and discussions on the latest applications of Bayesian statistics in the biomedical field.

Organized by the Adolphe Quetelet Society, an official region of the International Biometric Society (IBS), the conference upholds the IBS's commitment to scientific and ethical integrity. The conference is also sponsored by the American Statistical Society. It fosters an environment of respect and inclusivity, ensuring professional conduct among all attendees.

For more details on registration, program schedules, and other pertinent information, interested individuals are encouraged to visit the official conference website.

2026 European Meeting of Statisticians
August 24–28, 2026
Lugano, Switzerland

w https://www.bernoullisociety.org/organization/erc/ems

The European Meeting of Statisticians (EMS) is the main event sponsored by the European Regional Committee of the Bernoulli Society. Its organisation is accomplished following guidelines, whose current version was established in 2013. It is the main statistics conference in Europe. Statisticians of all ages and from all regions will meet to exchange ideas and discuss the latest developments in the broad field of statistics and probability theory.

Upcoming events and workshops at the Institute for Mathematical and Statistical Innovation, in Chicago, USA.

See https://www.imsi.institute/events/ for links for all events.

April 21–25, 2025: *Uncertainty Quantification for Material Science and Engineering* (Workshop 3 in the Spring 2025 Long Program on Uncertainty Quantification and AI for Complex Systems)

May 5–9, 2025: *Statistics Meets Tensors: Methodology, Theory, and Applications*

May 19–23, 2025: *Uncertainty Quantification and Machine Learning for Complex Physical Systems* (Workshop 4 in the Spring 2025 Long Program on Uncertainty Quantification and AI for Complex Systems)

June 9–13, 2025: *Statistical and Computational Challenges in Probabilistic Scientific Machine Learning*

June 21–25, 2025: *New Directions in Algebraic Statistics*

July 28–August 1, 2025: *15th International Conference on Monte Carlo Methods and Applications (MCM)*

August 11–14, 2025: *Contemporary Challenges in Large-Scale Sequence Alignments and Phylogenies: Bridging Theory and Practice*

August 18–22, 2025: *The Geometric Realization of AATRN (Applied Algebraic Topology Research Network)*

September 3–5, 2025: *Discrete Exterior Calculus: Differential Geometry and Applications*

September 15–19, 2025: *Opening Tutorial: Mathematical, Statistical, and Computational Foundations of Digital Twins* (Workshop 1 in the Fall 2025 Long Program on Digital Twins)

October 6–10, 2025: *Data Assimilation and Inverse Problems for Digital Twins* (Workshop 2 in the Fall 2025 Long Program on Digital Twins)

October 20–24, 2025: *Data Science at the Intersection of Public Health and the Environment: an Ideas Lab*

October 27–31, 2025: *Optimal Control and Decision Making Under Uncertainty for Digital Twins* (Workshop 3 in the Fall 2025 Long Program on Digital Twins)

November 10–14, 2025: *Reduced Order and Surrogate Modeling for Digital Twins* (Workshop 4 in the Fall 2025 Long Program on Digital Twins)

December 1–5, 2025: *Applications of Digital Twins to Large-Scale Complex Systems* (Workshop 5 in the Fall 2025 Long Program on Digital Twins)

IMSI is accepting applications for the **Fall 2025 Long Program on Digital Twins**, and the **Spring 2026 Long Program on Theoretical Advances in Reinforcement Learning and Control**. See https://www.imsi.institute/programs/ for more information.

Employment Opportunities

Germany: Heidelberg
Heidelberg University, Faculty of Mathematics and Computer Science
Full Professorship (W3) in Mathematical Statistics
https://jobs.imstat.org/job//77030847

United States: Gainesville, FL
University of Florida, Department of Statistics
Lecturer
https://jobs.imstat.org/job//77244225

United States: Fairfax, VA
George Mason University
Open-Rank, Tenured/Tenure-Track Statistics Faculty
https://jobs.imstat.org/job//76773380

United States: Fairfax, VA
George Mason University
Open-Rank, Term Statistics Faculty
https://jobs.imstat.org/job//76859377

International Calendar of Statistical Events

IMS meetings are highlighted in maroon with the ![ims] logo, and new or updated entries have the NEW or UPDATED symbol.
Please submit your meeting details and any corrections to Elyse Gustafson: **ims@imstat.org**

Online and Ongoing series

ONLINE ![ims] **Asia-Pacific Seminar in Probability and Statistics**
w https://sites.google.com/view/apsps/home

ONLINE ![ims] **One World ABI (Approximate Bayesian Inference,** formerly ABC, Approximate Bayesian Computation) **Seminar w** https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar

ONLINE ![ims] **One World Probability Seminar**
w https://www.owprobability.org/one-world-probability-seminar

ONLINE ![ims] **One World YoungStatS Webinar series**
w https://youngstats.github.io/categories/webinars/

ONLINE **Video series:** *The Philosophy of Data Science*
w https://www.podofasclepius.com/philosophy-of-data-science

April 2025

April 5: Laredo, TX, USA. **9th Coastal Bend Mathematics and Statistics Conference w** https://www.tamiu.edu/coas/dmps/conferences.shtml

April 10: online. **NISS–CANSSI Collaborative Data Science Webinar w** https://www.niss.org/events/niss-canssi-collaborative-data-science-webinar

April 11–12: Chicago, USA. **Infinite Possibilities Conference w** www.imsi.institute/activities/infinite-possibilities-conference/

May 2025

NEW May 8–10: Washington DC, USA. **The Past, Present and Future of Statistics in the Era of AI w** https://statistics.columbian.gwu.edu/gw-stat-90

![ims] May 9–11: Atlanta, USA. **10th Workshop on Biostatistics and Bioinformatics w** https://math.gsu.edu/yichuan/2025Workshop/

NEW May 12–13: Raleigh, USA. **Triangle Symposium on Statistics and Data Science (TSSDS) w** https://statistics.sciences.ncsu.edu/2025-triangle-symposium-on-data-science/

May 13: online. **AI, Statistics and Data Science in Practice Webinar: Dr. Amy McGovern w** https://www.niss.org/events/ai-statistics-and-data-science-practice-webinar-dr-amy-mcgovern

NEW May 29–31: College Park, USA. **Maryland Summer School in Statistics and Machine Learning w** https://stat.umd.edu/summer-courses.html

June 2025

June 2–27: Vancouver, Canada. **2025 PIMS–CRM Summer School in Probability w** https://secure.math.ubc.ca/Links/ssprob25/

![ims] June 3–5: New York, USA. **ASA–IMS Spring Research Conference (SRC) on Statistics in Industry and Technology w** https://sites.google.com/view/src-2025

June 8–12: Athens, Greece. **2025 Objective Bayes (O'Bayes) Methodology Conference w** https://obayes25.aueb.gr/

NEW June 9–13: Raleigh, USA. **International Workshop on Applied Probability (IWAP 2025) w** https://iwap2025.weebly.com/

NEW June 10–13: Aachen, Germany. **OSD 2025 – 16th International Conference on Order in Statistical Data: Order Statistics and Beyond (ODOS) w** https://www.osd2025.isw.rwth-aachen.de/cms/~bjvtqt/osd2025-isw/?lidx=1

![ims] June 15–18: Whistler, BC, Canada. **2025 WNAR/IMS Annual Meeting w** https://wnar.org/wnar2025

June 16–18: Amsterdam, Netherlands. **World Conference on Data Science & Statistics w** datascience.thepeopleevents.com/

June 16–20: Budapest, Hungary. **School on Stochastic interacting particle systems and random matrices w** https://erdoscenter.renyi.hu/events/school-stochastic-interacting-particle-systems-and-random-matrices

June 16–20: Singapore. **Bayes Comp 2025 w** bayescomp2025.sg

NEW June 23–25: Vancouver, Canada. **International Conference on Statistics and Data Science at Vancouver w** https://icsds.github.io/2025/

NEW *ims* June 23–27: Chapel Hill, USA. **EVA2025: the 14th international conference on Extreme Value Analysis w** https://eva2025.unc.edu/

ims June 23–27: Los Angeles, USA. **BNP14: 14th International Conference on Bayesian Nonparametrics w** https://bnp14.org/

June 23–27: Budapest, Hungary. **Workshop on Stochastic interacting particle systems and random matrices w** https://erdoscenter. renyi.hu/events/workshop-stochastic-interacting-particle-systems-and-random-matrices

June 23–27: Verona, Italy. **12th General AMaMeF conference w** https://sites.google.com/view/amamef2025/

NEW *ims* June 25–27: Zürich, Switzerland. **High-dimensional Statistics, Applications, and Distributional Shifts: Workshop in celebration of Peter Bühlmann's 60th birthday w** https://math. ethz.ch/fim/activities/conferences/High-dimensional-statistics-applications-and-distributional-shifts.html

June 29–July 2: Beijing, China. **45th International Symposium on Forecasting w** https://isf.forecasters.org/

June 30–July 3: Atlanta, GA, USA. **INFORMS Applied Probability Society Conference w** https://informs-aps.isye.gatech.edu/

NEW June 30–July 4: Oslo, Norway. **PrefStat 2025: Second International Summer School on Preference Learning for Ranking and Ordinal Data w** https://www.prefstat.org/

July 2025

NEW July 1–4: Paris, France. **MaSeMo: Markov, Semi-Markov Models and Associated Fields (from Theory to Application and Back) w** https://masemo.sciencesconf.org/

ims July 14–18: Wrocław, Poland. **Stochastic Processes and their Applications 2025 w** https://spa.pwr.edu.pl/

ims July 18 & 25 (online), and August 3 (at JSM): **NISS Writing Workshop for Junior Researchers 2025 w** www.niss.org/events/writing-workshop-junior-researchers-2025-day-1-online

July 21–25: Turin, Italy. **24th European Young Statisticians Meeting w** https://sites.google.com/view/eysmtorino2025/home

NEW July 28–August 1: Chicago, USA. **International Conference on Monte Carlo Methods and Applications (MCM) 2025 w** https://ccbatiit.github.io/mcm2025/

Have **you** spotted a meeting that's missing or listed incorrectly? *Please tell us!* Email bulletin@imstat.org.

July 28–August 1: Sofia, Bulgaria. **11th International Conference on Lévy Processes 2025 w** https://sites.google.com/view/levyconference2025/home

NEW *ims* July 31–August 2: Nashville, TN, USA. **IMS New Researchers Conference w** https://nrc2025.github.io

August 2025

ims August 2: Nashville, USA. **Frontiers in Statistical Machine Learning (FSML) w** https://fsmlims.wixsite.com/fsml25

ims August 2–7: Nashville, USA. **2025 IMS Annual Meeting at JSM 2025 w** https://ww2.amstat.org/meetings/jsm/2025/

JSM NASHVILLE TENNESSEE AUGUST 2–7, 2025

September 2025

NEW September 1–4: Edinburgh, UK. **Royal Statistical Society 2025 International Conference w** https://rss.org.uk/training-events/conference-2025/

September 24–26: Rockville, USA. **2025 ASA Regulatory-Industry Statistics Workshop w** ww2.amstat.org/meetings/risw/2025/

International Calendar *continued*

October 2025

October 5–9: The Hague, Netherlands. **65th ISI World Statistics Congress w** https://www.isi-next.org/conferences/isi-wsc2025/

NEW October 15: Newcastle upon Tyne, UK. **8th IMA Conference on Mathematics in Defence and Security Mathematics for Decision Support w** https://ima.org.uk/26135/8th-ima-conference-on-mathematics-in-defence-and-security-mathematics-for-decision-support/

NEW October 22–24: Leiden, The Netherlands. **Bayesian Biostatistics Conference (Bayes 2025) w** https://www.bayes-pharma.org/

December 2025

ims December 15–18: Seville, Spain. **IMS International Conference on Statistics and Data Science (ICSDS) w** https://sites.google.com/view/ims-icsds2025/

June 2026

June 1–4: Washington DC, USA. **9th International Workshop in Sequential Methodologies w** https://www.american.edu/cas/iwsm2026/

ims June 13–16: Hong Kong, China. **IMS–APRM2026: IMS Asia Pacific Rim Meeting w** TBC

June 15–19: Chicago, USA. **Stochastic Networks Conference w** https://www.chicagobooth.edu/events/stochastic-networks-conference

July 2026

ims July 6–9: Salzburg, Austria. **IMS Annual Meeting. w** TBC

July 23–30: Philadelphia, USA. **International Congress of Mathematicians 2026 w** https://www.icm2026.org/

August 2026

ims August 1–6: Boston, MA, USA. **JSM 2026 w** www.amstat.org/meetings/joint-statistical-meetings

NEW August 24–28: Lugano, Switzerland. **2026 European Meeting of Statisticians w** https://www.bernoullisociety.org/organization/erc/ems

August 2027

ims August 7–12: Chicago, USA. **IMS Annual Meeting at JSM 2027 w** www.amstat.org/meetings/joint-statistical-meetings

July 2028

ims July 24–28: Singapore. **Bernoulli–IMS 12th World Congress in Probability and Statistics** (incl. IMS Annual Meeting). **w** TBC

August 2028

ims August 5–10: Philadelphia, USA. **JSM 2028 w** www.amstat.org/meetings/joint-statistical-meetings

August 2029

ims August 4–9: Seattle, USA. **IMS Annual Meeting at JSM 2029 w** www.amstat.org/meetings/joint-statistical-meetings

Are we missing something? If you know of any statistics or probability meetings which aren't listed here, please let us know.
You can email the details to Elyse Gustafson at ims@imstat.org, or you can submit the details yourself at https://www.imstat.org/ims-meeting-form/
We'll list them here in the Bulletin, and on the IMS website too, at imstat.org/meetings-calendar/

Membership and Subscription Information: 2025

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Issue	Deadline	Online by	Mailed
1: January/February	**December 1**	December 15	January 1
2: March	**February 1**	February 15	March 1
3: April/May	**March 15**	April 1	April 15
4: June/July	**May 1**	May 15	June 1
5: August	**July 1**	July 15	August 1
6: September	**August 15**	September 1	September 15
7: Oct/Nov	**September 15**	October 1	October 15
8: December	**November 1**	November 15	December 1

The **purpose** of the Institute is to foster the **development** and **dissemination** of the **theory** and **applications** of **statistics** and **probability**

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Ann. Appl. Probab. Feb 2025
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Articles

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