IMS Bulletin

January/February 2023

CONTENTS

Read it online:
imstat.org/news

Michael Jordan: World Laureates Prize

The Inaugural World Laureates Association (WLA) Prize award ceremony took place on 6 November during the Opening Ceremony of the WLA Forum in Shanghai. The winner of the **WLA Prize in Computer Science or Mathematics** is **Michael I. Jordan**, "for fundamental contributions to the foundations of machine learning and its application." Jordan is Professor of Department of Electrical Engineering and Computer Sciences and the Department of Statistics at UC Berkeley. Among many honors, he was the Grace Wahba Lecturer in 2022.

In his prize acceptance speech, Jordan encouraged youngsters to explore and learn widely and then choose one field to carry out more profound research. He also predicted that a new discipline in engineering based on Intelligence Science, Statistics, and Economics would soon come into existence, leading the world to a multi-data era. The first discipline in the engineering field was closely related to users' preferences, values, and decisions. According to Jordan, the three missions of the World Laureates Association (WLA) went along miraculously well with what people expected from Machine Learning and Artificial Intelligence in the future, with them unanimously agreeing that international cooperation would lead to prosperity.

Jordan commented on the significance of this major international prize being awarded to a statistician, despite its title being Computer Science or Mathematics. "Given that precedent, future winners may also be statisticians," he noted.

The other WLA Prize is awarded in Life Science or Medicine: the 2022 winner is Dirk Görlich, Max Planck Institute for Multidisciplinary Sciences, "for key discoveries elucidating the mechanism and selectivity of protein transport between the cytoplasm and nucleus."

The World Laureates Association Prize is a new international science prize, initiated in Shanghai in 2021 by the World Laureates Association (WLA), managed by the WLA Foundation, and exclusively funded by Sequoia China, a venture capital firm. The WLA Prize aims to recognize and support eminent researchers and technologists worldwide for their contributions to science. It is intended to support global science and technology advancement, address challenges to humanity, and promote society's long-term progress. The total award for each Prize, which may be divided among up to four laureates, is RMB 10 million (approximately US$1.5 million).

Michael Jordan receiving his World Latureates Association Prize in Shanghai

IMS Members' News

International Statistical Institute elected members

In the final round of elections for 2022, the International Statistical Institute has selected the following IMS members as ISI elected members:

Yifan Cui, Zhejiang University. Dr. Cui is a tenure-track faculty member at the Center for Data Science, Zhejiang University.

Snehalata Vasant Huzurbazar, School of Mathematical and Data Sciences, West Virginia University, USA. Dr. Huzurbazar's academic career spans Statistics, Biostatistics and now Data Science, both as places of employment as well as research and teaching. She collaborates with researchers across disciplines, and most recently, is learning about problems in space weather and working with aerospace engineers.

Zhenzhen Jin, Department of Biostatistics, Mailman School of Public Health, Columbia University, USA. Dr. Jin's research area covers resampling methods, survival analysis, nonparametric and semiparametric methods, smoothing methods, statistical computing, machine learning and data science. He has been collaborating with clinical investigators in neurology, cardiology, oncology, transplantation, psychiatry, pathology and alternative medicine.

Michael McDermott, University of Rochester Medical Center. Dr. McDermott is Professor of Biostatistics and Neurology and Associate Chair of the Department of Biostatistics and Computational Biology at the University of Rochester. For more than 30 years he has been involved in the design and analysis of clinical trials in a variety of neurological diseases, most notably Parkinson's disease, Huntington's disease, and various muscle diseases. Much of Dr. McDermott's statistical research has been in the area of order-restricted inference, specifically with regard to developing novel approaches to hypothesis testing problems involving order-constrained parameters. Other interests include inference concerning receiver operating characteristic (ROC) curves in the setting of verification bias, meta-analysis, missing data problems, and clinical trials methodology.

Hongjian Zhu, AbbVie Inc, USA. Dr. Zhu is a Director in the Statistical Innovation Group at AbbVie Inc. He has provided strategic, innovative thinking and novel statistical methodology to Therapeutic Areas, including immunology, oncology, eye care, aesthetics, and neuroscience. He was a tenured Associate Professor at UTHealth. His research mainly focuses on adaptive designs.

Yan Zhuang, Connecticut College, USA. Dr. Zhuang is currently an assistant professor at Connecticut College. She conducts research in theory and applications in statistics, including applied probability, sequential analysis, statistical inference, and interdisciplinary research.

Yifan Cui

Snehalata Huzurbazar

Zhenzhen Jin

Michael McDermott

Hongjian Zhu

Yan Zhuang

National Academy of Medicine elects Bhramar Mukherjee as new member

The US National Academy of Medicine has elected 90 regular members and 10 international members during its annual meeting. Election to the Academy is considered one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding professional achievement and commitment to service. Among those elected this year is **Bhramar Mukherjee**, John D Kalbfleisch Collegiate Professor and chair of the Department of Biostatistics, and professor in the Department of Epidemiology, at the University of Michigan School of Public Health, Ann Arbor. For seminal contributions to statistical methods in public health and biomedical

Bhramar Mukherjee

sciences; pioneering methods for the integration of genes, environment, and disease phenotypes across health conditions; analysis of the COVID-19 epidemic that have informed policy in India; exemplary leadership; and nationally recognized initiatives to diversify the data and statistical science workforce.

Read the complete list at https://nam.edu/national-academy-of-medicine-elects-100-new-members-2022/

David Nualart elected Fellow of the American Mathematical Society

The 2023 Class of Fellows of the AMS includes IMS Fellow **David Nualart**, Black-Babcock Distinguished Professor Emeritus at the University of Kansas. Dr. Nualart was

selected, "For contributions to Malliavin calculus, stochastic PDEs, and fractional Brownian motion." He lists his research interests as stochastic analysis, Malliavin calculus, anticipative stochastic calculus, large deviations, rough path analysis, stochastic partial differential equations, fractional Brownian motion, and mathematical finance. The Fellows of the AMS program recognizes members who have made outstanding contributions to the creation, exposition, advancement, communication, and utilization of mathematics.

David Nualart

Bernoulli Society 2023 New Researcher Award winners

The winners of the Bernoulli Society's New Researcher Award 2023 in Mathematical Statistics are **Edgar Dobriban** (University of Pennsylvania), **Qiyang Han** (Rutgers University), and **Lucas Janson** (Harvard University). The awardees will deliver a talk at the special invited session during the 64th ISI World Statistics Congress Conference to be held in Ottawa, Canada, July 16–20, 2023, and will each receive funding of up to 1000 Euros to offset their travel and other expenses.

The committee also honored three additional applicants: **Thomas B. Berrett** (University of Warwick), **Zijian Guo** (Rutgers University), and **Yuting Wei** (University of Pennsylvania). Early bird registration is now open for the ISI World Congress: https://www.isi2023.org/conferences/ottawa-2023/

Daniel Nordman new IMS Managing Editor

Thanks to Bob Keener, who is handing over supervision of the IMS Production Editor and the *IMS Bulletin* Editor to **Daniel Nordman**, Iowa State University.

New IMS Editor for *Statistics Surveys*

Yingying Fan, University of Southern California's Marshall School of Business, is taking over from Marloes Maathuis as editor of *Statistics Surveys*.

⌨ = access published papers online

IMS Journals and Publications

Annals of Statistics: Enno Mammen, Lan Wang
　https://imstat.org/aos
　⌨https://projecteuclid.org/aos

Annals of Applied Statistics: Ji Zhu
　https://imstat.org/aoas
　⌨https://projecteuclid.org/aoas

Annals of Probability: Christophe Garban, Alice Guionnet
　https://imstat.org/aop
　⌨https://projecteuclid.org/aop

Annals of Applied Probability: Kavita Ramanan, Qiman Shao: https://imstat.org/aap
　⌨https://projecteuclid.org/aoap

Statistical Science: Sonia Petrone
　https://imstat.org/sts
　⌨https://projecteuclid.org/ss

IMS Collections
　⌨https://projecteuclid.org/imsc

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

IMS Co-sponsored Journals and Publications

Electronic Journal of Statistics: Grace Yi & Gang Li
　https://imstat.org/ejs
　⌨https://projecteuclid.org/ejs

Electronic Journal of Probability: Bénédicte Haas
　⌨https://projecteuclid.org/euclid.ejp

Electronic Communications in Probability: Siva Athreya
　⌨https://projecteuclid.org/euclid.ecp

Journal of Computational and Graphical Statistics: Galin Jones, Faming Liang https://www.amstat.org/ASA/Publications/Journals.aspx
　⌨log into members' area at imstat.org

Probability Surveys: Mikhail Lifshits
　https://imstat.org/ps
　⌨https://www.i-journals.org/ps/

Statistics Surveys: Yingying Fan ⌨UPDATED
　https://imstat.org/ss
　⌨https://projecteuclid.org/euclid.ssu

IMS-Supported Journals

ALEA: Latin American Journal of Probability and Statistics: Daniel Remenik
　⌨http://alea.impa.br/english

Annales de l'Institut Henri Poincaré (B): Giambattista Giacomin, Yueyun Hu
　https://imstat.org/aihp
　⌨https://projecteuclid.org/aihp

Bayesian Analysis: Mark Steel
　⌨https://projecteuclid.org/euclid.ba

Bernoulli: Davy Paindaveine
　https://www.bernoulli-society.org/
　⌨https://projecteuclid.org/bj

Brazilian Journal of Probability and Statistics: Mário de Castro
　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: Shane Henderson
　⌨https://pubsonline.informs.org/journal/stsy

The Journeys of Scholars: deciphering the pursuit of excellence

Adel Daoud is the host and organizer of a new podcast series, The Journeys of Scholars. He writes:

Many of us academics are fascinated by the pursuit of academic excellence and mastery, yet it can remain a puzzle how to achieve this pursuit optimally. There exist many scholarly and popular books, articles, and presentations about excellence and mastery, but only a few sources systematically interview those that are on the path of excellence and make those interviews publicly available. Thus, there is a gap between the insight one can gather from reading such books versus hearing from a top performer reflecting on their journey.

The Journeys of Scholars (JoS) is a podcast, which I have recently created, to fill that gap by aiming to decipher the pursuit of academic excellence through interviews about the trajectories, macro–micro strategies, habits, and advice from top-class academic performers. The interviews are about topics that are usually not discussed as systematically in public academic settings as they perhaps should be. While there is no single blueprint for academic success, these interviews are intended to provide advice and guidance for scholars striving toward excellence by reflecting on the ways different top performers achieved their goals. After all, we all need advice, assistance, and inspiration from our forerunners that paved the way toward new frontiers. The aim of this podcast is to supply these pieces of advice, assistance, and inspiration.

Most of the interviews currently available at the JoS YouTube Channel—an audio-only version will be made available on Spotify and similar podcast media—are currently with statisticians and computational social scientists. The reason for this current focus is simple: my scholarly network currently is situated in this disciplinary overlap. However, the podcast will eventually expand to include scholars with other disciplinary backgrounds, as I am curious to find out and compare what trajectories scholars within and between disciplines tend to follow. At some point, I might write a book, encapsulating some of the key advice, but for now, the focus of JoS is to conduct interviews with top academic performers and make them available for students, early-career professors, or full professors—anyone interested in the topics of JoS.

Recently, the JoS featured Prof. Xiao-Li Meng, who will be familiar to readers of the IMS Bulletin. While I have known Prof. Meng for several years, I was pleasantly surprised to hear several new stories about his academic journey. Although we were both Harvard affiliated—at that time, I was a postdoc at the Center for Population Studies at Harvard University—we first met in 2019 outside of Harvard by chance. He and I, among others, were invited to the UN Global Pulse in New York for a workshop. The purpose of the workshop was to evaluate how data science can be used for research and policy issues on global sustainable development—mitigating poverty, handling climate change, and fostering global cooperation. I knew of Prof. Meng's many statistical contributions already before we met, but it struck me that although he had focused mainly on theoretical topics in statistics, he was still actively and deeply participating in all these challenging applied topics, presented in the workshop. Despite the fact that all these applied topics seemed to be residing outside of his area of expertise, he was deeply curious, reflective, and interested. In his JoS interview, my opening question to Prof. Meng was, "How do you stay curious and open to new theoretical and applied ideas, while also making deep contributions to numerous fields in statistics and data science?" His response is intriguing and has stayed in my mind ever since, as a guiding principle for venturing outside one's main discipline. I will refrain from giving spoilers here and encourage the readers of the IMS Bulletin to listen to the full interview (https://www.youtube.com/watch?v=qlfMbh1Arw0&t=197s).

Currently, the JoS features the following interviews, and others are planned to appear on a regular basis:

- *Pursuing excellence*, with Professor **Gary King**, Harvard University: https://youtu.be/mjOsjmzVN1w
- *How to combine academia and entrepreneurship*. Continuing the conversation with Prof. **Gary King** at Harvard: https://youtu.be/qm3Brs9YucA
- *Following your curiosity*, with **Xiao-Li Meng**, Professor of Statistics, Harvard University: https://youtu.be/qlfMbh1Arw0
- *Establishing your research program*, with Prof. **Stephen Raudenbush**, University of Chicago: https://youtu.be/39iEVydDM2o
- *Choosing your academic path*, with Professor **Christopher Winship**, Harvard University: https://youtu.be/B8gaeQ5560I
- *Building excellent research environments*, with Professor **Peter Hedström**, Linköping University: https://youtu.be/DJy7QFcppxA
- *Finding one's path as a statistician or data scientist*, with Prof. **Jennifer Hill**, New York University: https://youtu.be/hDMxM2pD6oY

Having completed seven interviews with esteemed scholars, each lasting for about

Journeys of Scholars

Continued from previous page

an hour and a half, it strikes me how the trajectories towards mastery in one's field can vary, often with a twist. Professor Jennifer Hill, for example, started her Bachelor's studies with a social science background and then moved into a PhD in statistics. Interestingly, she said that at the beginning of her graduate student years, she found the mathematics courses to be challenging, and was struggling to keep up with her peers, who often had a traditional mathematics background. So she dedicated herself to deeper training in mathematics and statistics and thereby overcame those challenges. Today, she has risen to become one of the leading statisticians of her generation. Professor Steven Raudenbush at the University of Chicago had a nonconventional path toward excellence. He revealed that he had a non-academic career before his academic journey, and thus embarked on a PhD at Harvard at an older age than is expected of top performers. Like Professor Hill, he dedicated himself deeply to the study of mathematics and statistics, and ended up making critical contributions to multilevel modeling and its application to neighborhoods and education research.

And there are many more stories. There are several gems of insight to be derived from how Prof. Gary King pioneered political methodology, how Prof. Christopher Winship contributed to the causal inference revolution, and how Prof. Peter Hedström initiated the field of analytical sociology.

While all the scholars I have interviewed exhibit a similar level of perseverance and dedication to their work, they also testify to the fact that nurturing excellence may require different approaches. That variation is natural: as humans are born into different conditions, they grow and flourish differently. Creativity and exploration take time, and so does nurturing excellence. Yet currently academia puts a premium on early bloomers and fast success—which is perhaps a feature of modern society. Although early flourishing is a strong indicator of remarkable contributions, perhaps academia needs to maintain space for a wider variety of academic trajectories.

The JoS is a long-term project of mine that I have just started and will be pursuing as a side project, in parallel to my research. I will continue interviewing scholars across multiple fields—about one every month. While the number of academic masters walking the face of the earth is relatively small (compared to the size of the global population), this number is still sufficiently large to keep me busy for the rest of my career—and beyond.

A screenshot from the Journeys of Scholars podcast conversation between Xiao-Li Meng and host Adel Daoud

About Adel Daoud

Adel Daoud is an Associate Professor at Institute for Analytical Sociology, Linköping University, and Affiliated Associate Professor in Data Science and Artificial Intelligence for the Social Sciences, Department of Computer Science and Engineering, Chalmers University of Technology, Gothenburg, Sweden. Previously he held positions at Harvard University, the University of Cambridge, Max Planck Institute for the Studies of Societies, and the Alan Turing Institute. His research has both a social-scientific and methodological orientation. For the social sciences, he researchers the effect of international development interventions (e.g., anti-poverty policies) on global poverty, but also the impact of sudden shocks (e.g., economic, political, and natural disasters). Daoud implements novel methodologies in machine learning and causal inference to analyze the causes and consequences of poverty. He has published in journals such as *PNAS, Science Advances, World Development, International J of Epidemiology*, and *Ecological Economics*, and machine-learning conferences such as the Association for the Advancement of Artificial Intelligence (AAAI) and the North American Chapter of the Association for Computational Linguistics (NAACL).

Daoud leads The AI and Global Development Lab (global-lab.ai). The vision of the Lab is to "combine AI, earth observation, and socio-economic theories to analyze sustainable and human development globally."

In 2022, Daoud was awarded the Hans L. Zetterberg Prize in Sociology which is given annually to young researchers, who with their scholarly work in sociology, preferably by fruitfully combining theory and practice, have advanced the research front. More info at www.adeldaoud.se.

Sound the Gong

The Laws of the Jungle: Data Science Edition

Contributing Editor Ruobin Gong shared some pieces of advice on cutting a path through the data science jungle:

The winter months of an academic year may appear slow and dormant. But for a thriving discipline like statistics, that cannot be further from the truth. From November to February, many statistics departments are preoccupied with two things: placing their graduating PhD students to academic (and non-academic) positions, and quite often, evaluating job applicants from their peer institutions. This is the time of the year when we all are once more amazed by the stellar, and often imaginative, accomplishments of the next generation. Many candidates for tenure-track statistics faculty positions show strong publication records outside of traditional statistics venues. While most were trained as statisticians, some competitive candidates obtained their doctoral degrees from departments of machine learning and computer science. As prospective employers, we delight in the stimulating consequences of statistics being a core player in data science. As researchers and teachers, on the other hand, we are prompted to examine how well our discipline has been doing in an ever-changing landscape. Is our research making good impact? Are we training our students to make good impact?

The rise of data science reflects the necessity of a scholarly discourse that unites the strengths of many disciplines under the quantitative perspective. A manufactured notion at inception—awkward-fitting and forced into existence—data science has evolved into a natural, broadly accepted, and spirited one over the past decade. During this slow yet steady evolution, its constituent disciplines also found a renewed cadence of research. Many developed perspectives and approaches that were more interdisciplinary than ever before. The cutting-edge topics of data science—privacy, data ethics, digital humanity, and personalized healthcare, to name just a few examples—all require the collective intelligence of statistics, computer science, and the subject-matter experts to put their heads together (and their feet into one another's shoes) to tackle the real questions. Collaboration and competition are two dynamic forces that propel this progress.

Data science is a jungle. It is a vast ecosystem, sustained by the vitality of its members and their symbiotic relationship with one another. A jungle harbors unsurpassed diversity and creativity that comes with it. But a jungle can also be a cruel place, where the livelihood of every being and every species hinges upon a keen sense to survive, to procure resources, and to adapt to the shifting environment. What are the laws of the jungle that is data science? As residents of the data science jungle, what should we do to survive and to thrive? I offer five reflections from a statistician's experience.

First, ***break the mental boundaries***. Traditional mathematical statistics emphasizes scholarly contributions made inside of statistics, that is, the development of theory and methodology that benefit other statisticians and future statistical research. To make impactful contribution in data science, a statistician must look and think beyond disciplinary confines. Long before data science, applied statistical research has been the pioneer in disciplinary boundary breaking. Today, boundary-breaking efforts can and should extend beyond applied research, into the realm of theory and methodology development for problems that stem from non-statistical origins. Get excited about questions regardless of where they come from, so long as they are real, important, intriguing, and amenable to tackling with quantitative evidence.

Second, we should ***play to our strengths***. Know and leverage our disciplinary-specific training in our quest to making an impact. Whether we like to admit it or not, every discipline trains their students into possessing a unique mindset. This mindset, often no less holistic and potent than a world view, encapsulates the epistemology and the wisdom distilled over the history of the field. Elements such as uncertainty quantification, sampling and randomization, probabilistic modeling and regression are among the key wisdoms that embody the spirit of statistics. Taking them to heart is a statistician's rite of passage. Use our wisdom wisely.

Third, ***open mind and open arms***. Newsworthy breakthroughs in machine learning and data science occasionally arrive at our doorstep like a knight with glistering armor. But even in Shakespeare's time, people recognized that not all that glistered was gold. These thoughts may be an instinct of survival or denial; either way, succumbing to them without rational deliberation may incur a loss on our part. In the movie *Arrival*, if our heroine doesn't risk her

life and befriend the scary-looking extraterrestrial beings, how would the Earthlings learn about the magical and powerful world embodied by their teleological language?

An "open mind, open arms" policy calls for disciplines to teach to each other their different vocabularies and practices. Be warned, however, that when disciplinary lines become blurry, an inevitable consequence is that wheels get reinvented, or worse, appropriated. We might feel betrayed when our creation pops up in a different literature, under a new name and without due acknowledgment. (As a not-so-new joke puts it, "machine learning" too often just means logistic regression.) But statisticians are not innocent when it comes to knowledge appropriation either. Indeed, some ideas that are widely believed as quintessentially statistical originated outside of statistics. Let us not be deterred by the perceived risk or harm of intellectual property theft. Good ideas will shine wherever they fulfill a purpose, whether foreseen or otherwise. Let us rejoice in knowing that we came up with them.

Fourth, *practice productive skepticism*. Statisticians are critical thinkers. We take great care in our own work to lay out all the assumptions and admit earnestly to weaknesses of our solution. In the work of others, we are never shy to point out faults and deficiencies. The skepticism we hold against others and ourselves is a testament to our professional ethics, and is precisely why statistical methods command trust and respect in support of scientific advances.

When wielded appropriately, skepticism keeps us on our toes so that we never grow complacent. It also means that we do things slowly, and sometimes give up on doing anything at all if a perfect solution is deemed beyond reach. Today, publications in machine learning and computer science conferences decorate many statisticians' CVs. In a way, they are badges of honor that attest to the versatility of our contributions. For those who've had their skin in the game, however, we understand too deeply the sacrifice that must be made to partake in fast-paced conference publishing. As soon as the process starts, speed becomes the essence: there is little time to think, and virtually none to practice skepticism.

To join fast publishing may feel like lowering our standards, or even "selling our soul." But to apply the "open mind, open arms" advice here, the publication schism is a cultural one that merely reflects the disciplinary preference at striking the speed-versus-quality tradeoff. In impact-oriented scholarship, a case can be made for faster iterations of research so that good, albeit less-than-impeccable, solutions reach the audience that needs them in a timely manner.

As the old saying goes, don't let Perfect be the enemy of Good.

Finally, *be kind and be generous* to the young, the ignorant, and the brave. In the eyes of discipline-specific experts, interdisciplinary work would likely appear foreign. It would not conform to "normal science" or the methods of inquiry that are traditionally agreed-upon. Interdisciplinary work can take unexpected forms, either as a novel application utilizing tools from one discipline to solve the problem of another, or as a synthesis or reconciliation of existing approaches from multiple disciplines. An interdisciplinary contribution might not check all the boxes that a discipline-specific one is expected to. Perhaps a theory cannot be made water-tight in an uncharted territory; a methodology may be employed straight out of the box when its innovation is beside the point; or the substantive findings may not presented in ways that are familiar. The evaluation of such work under discipline-specific lenses might expose problems, and it may be too easy to dismiss it on these grounds even though the virtue of the effort is buried under caveats.

To be clear, I do not advocate for sloppy work disguised as speedy publication or interdisciplinary data science. Rather, my hope is that we prepare ourselves to see the value in a genuine effort to innovate, and to offer constructive—rather than destructive—guidance to those who need it.

In the jungle of data science, aspiring data scientists and early-career scholars who devote their passion to interdisciplinary work need all the help they can get to survive, to grow, and to proliferate statistical thinking. After all, a thriving jungle is a truly amazing place, a paradise in which every sentient being is offered an opportunity to not only live but also reach its full potential. Navigating a fruitful path through the jungle is a career-long project for every data scientist.

Obituary: Wojbor A. Woyczyński

1943–2021

Wojbor Andrzej Woyczyński, Professor at Case Western Reserve University, passed away on the 14th of August 2021 in Cleveland, Ohio. He was 77 years old. He is survived by his children Martin Wojbor, Gregory Holbrook, and Lauren Pike, and by his wife Elizabeth Holbrook Woyczynski. Wojbor has left an indelible legacy of research, teaching, mentorship, and service to the profession and the community.

Wojbor was born in Częstochowa in Central Poland on October 24, 1943. After the end of World War II, the Woyczyński family moved west from Częstochowa to Wrocław, a regional capital in the Polish territory of Lower Silesia, where Wojbor lived till the mid-1970s. He studied engineering at Wrocław University of Technology and concurrently audited courses in mathematics at the University of Wrocław, taught by such mathematicians as Edward Marczewski, Czesław Ryll-Nardzewski, Hugo Steinhaus, and Kazimierz Urbanik, who were all members of the Polish Academy of Sciences. In 1966 Wojbor graduated with a master's degree in electrical engineering, but his heart was in mathematics.

In 1968 Wojbor became an Assistant Professor in the Institute of Mathematics at the University of Wrocław, and in the same year he received a PhD degree under the supervision of Professor Kazimierz Urbanik. In 1972 Wojbor obtained a Habilitation in Mathematics and a promotion to Associate Professor.

Wojbor's academic career extended internationally through academic visits, collaborations, and teaching. Eventually, he settled down in the USA, while preserving vivid relations with Poland, and Wrocław in particular. From 1970 to 1972, Wojbor taught and conducted research at the Carnegie Mellon University in Pittsburgh, Pennsylvania. His next visit to the USA, which was to become permanent, was in Summer 1976. Wojbor spent that summer at the University of Wisconsin–Madison. This was followed by a year-long visiting appointment at Northwestern University in Evanston, Illinois. Subsequently, Wojbor became a Professor at Cleveland State University, Cleveland, Ohio.

In 1982 Wojbor accepted a position of Professor and Chair of the Department of Mathematics and Statistics at Case Western Reserve University (CWRU) in Cleveland, Ohio. He served as the Department Chair until 1991. When the department split into Mathematics and Statistics parts, Wojbor established his place in the Department of Statistics to lead it as the Chair between 2001 and 2002. In 2013 Wojbor became a professor of the newly formed Department of Mathematics, Applied Mathematics and Statistics at CWRU.

Wojbor singlehandedly created the Center for Stochastic and Chaotic Processes in Science and Technology under the auspices of CWRU in 1989 and had served as its sole Director. The Center was funded by the National Science Foundation and other agencies. It facilitated research on stochastic modeling in science and technology, but it was also open to external new ideas, theories, and projects. This interdisciplinary and intercollegiate entity attracted numerous visitors and collaborators from all over the world. Wojbor's hospitality and friendly demeanor, combined with his passion for science and mathematics made such visits enjoyable and scientifically stimulating.

During his 53-year academic career, Wojbor worked on a great variety of topics from stochastic integration to probability on Banach spaces, probabilistic methods in
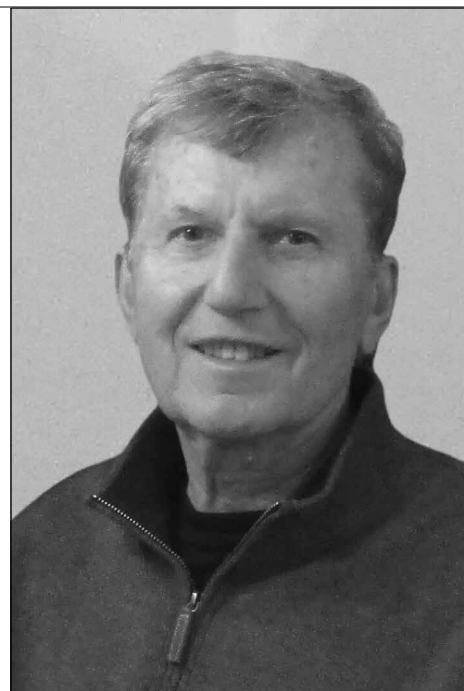
Wojbor Woyczyński

harmonic and functional analysis as well as in novel applications of mathematical fields to probability problems. He was knowledgeable about, and genuinely interested in, the history of mathematics. Wojbor often crossed subject boundaries, wandering into applications of probabilistic methods to other areas, such as turbulence, statistical physics, atmospheric physics, hydrodynamics, oceanography, operations research, financial mathematics, chaotic dynamics, and other applications to chemistry, physics, biology, and medicine. He worked on statistics of random fields, nonlinear stochastic and fractional evolution equations, and random graphs, just to mention a sample.

Wojbor published 17 books in his research interest areas, and two book translations: *Probability Distributions on Banach Spaces* (written in Russian by N.N. Vakhania, V.I. Tarieladze and S.A. Chobanyan, D. Reidel), and *Through a Reporter's Eyes: The Life of Stefan Banach* (by R. Kałuża, translated and edited by A. Kostant and W.A. Woyczyński). He also published 180 research papers, several biographies, and popular articles.

He received many honors and research

Wojbor Woyczyński, 1943–2021

awards, including IMS Fellow (1986); Ministry of National Education of Poland Prize for the monograph *Random Series and Stochastic Integrals: Single and Multiple*, joint with S. Kwapień (1993); McGregor Foundation Grant, Statistics for Financial Engineering and Volatile Global Securities Markets, a World-Wide Learning Environment Initiative (2008–09); Gold Medal of the University of Wrocław (2011); and the "Prix de Recherches" Award in the field of Mathematics, joint with Sylvie Méléard and Benjamin Jourdain, *La Recherche* magazine, Paris (2013).

Wojbor was a great teacher and mentor. Sixteen graduate students obtained PhD under his direction and many obtained masters degrees he supervised. As someone said, "His legacy will continue through his impact on students and colleagues."

This obituary contains excerpts from the article by Jan Rosiński and Jerzy Szulga: "In Memoriam: Wojbor Andrzej Woyczyński (1943–2021)," *Probability and Mathematical Statistics*, **42**. 1 (2022), 1–21.

Written by Jan Rosiński, University of Tennessee, Knoxville

OBITUARY: James Pickands III
1931–2022

JAMES (JIM) PICKANDS III, emeritus professor of statistics at The Wharton School of the University of Pennsylvania, died March 9, 2022. He was 90.

Jim graduated from Yale and completed a doctorate in Mathematical Statistics at Columbia in 1965 with Simeon Berman as adviser. He then joined the Department of Statistics at Virginia Tech before coming to Wharton in 1969.

While at Columbia, Jim worked as a research assistant to Emil Gumbel, an early contributor to extreme-value theory. Subsequently, he produced research on the maxima of Gaussian processes, an outgrowth of his dissertation work. He is best known for his pathbreaking research on extreme values. In one seminal paper, "Statistical Inference Using Extreme Order Statistics," in *The Annals of Statistics* in 1975, he developed a novel approach for estimation of the tail of a distribution (and hence future large values) by realizing that extreme values under general conditions belong to the Pareto family. The work by Jim that arguably has had the greatest impact is his characterization of multivariate extreme value distributions, published in 1981 in the *Bulletin of the International Statistical Institute*. Jim realized that the marginals may be transformed to exponential random variables. The characterization through the dependence structure among the components as a result is illuminating. In additional work, the Pickands–Balkema– De Haan theorem gives the asymptotic tail distribution of a random variable when its true distribution is unknown. This result is often referred to as the second theorem in extreme value theory. The theorem describes the values above a threshold.

Colleagues remember Jim as a warm and gentle person. He was not a self-promoter and rarely attended conferences. He didn't get some of the credit he deserved for a lot of the research he did on extreme value theory and its applications. Jim's colleague Abba Krieger recalls one conference he and Jim attended in Philadelphia. "We had on our name tags. Chuck Stone squinted at our name tags and said, 'So *you* are James Pickands. I have been an admirer of your results and used them extensively for many years.'"

Krieger also recalled how Jim approached everything with a certain kind of subtlety, such as the time he went into his statistics class only to find the students clustered in the far back rows as a joke because the room was too large. "Jim walked into the class, did not say a word, and started to lecture on the board. He wrote in small print. He continued to do so until the students realized that they better move closer," Krieger recalled.

Jim was born in Euclid, Ohio on September 4, 1931. Before launching his academic career, he served for two years in the U.S. Army. Jim always referred to himself as a late bloomer.

Jim is survived by his second wife, D. Morgan, and first wife, Nancy McCulloch; his daughter, Holly Pickands McLaughlin; two grandchildren, two stepchildren and their children, his three siblings and their spouses, and many nieces and nephews. He was preceded in death by his son, James Pickands IV.

Written by Abba Krieger and Paul Shaman, both at the University of Pennsylvania. Some of the details are taken from a remembrance posted on the Wharton School's website.

IMS Lawrence Brown PhD Student Awards: Lecture Previews

We introduced the three winners of the IMS Lawrence D. Brown PhD Student Awards in the last issue. Here, Yaqi Duan, Tudor Manole and Yuetian Luo introduce their talks, which will be given in a special session at the Joint Statistical Meetings in Toronto (August 5–10, 2023). Meeting information at https://ww2.amstat.org/meetings/jsm/2023/

Yaqi Duan

Yaqi Duan is a postdoctoral researcher at the Laboratory for Information & Decision Systems at Massachusetts Institute of Technology, working with Professor Martin J. Wainwright. Her research interests lie broadly in the intersection of statistics and machine learning, in particular data-driven sequential decision making and reinforcement learning. In fall 2023, she will join the Stern School of Business at New York University as an Assistant Professor at the Department of Technology, Operations, and Statistics. Yaqi graduated with a PhD from the Department of Operations Research and Financial Engineering at Princeton University. Prior to that, she received a B.S. in Mathematics from Peking University. Yaqi will give this talk in the Lawrence Brown PhD Student Award session at JSM Toronto.

Optimal policy evaluation using kernel-based temporal difference methods

Policy evaluation in reinforcement learning refers to evaluating the performance of a decision policy using previously collected datasets in batch. The quality of a given policy is assessed by its value function—that is, the expected sum of (discounted) rewards under a trajectory generated by running the given policy. Policy evaluation is central to many applications. For example, in the setting of clinical treatments, the value function might correspond to the expected long-term survival rate of patients, whereas in inventory management, it measures the profits/losses of a company over time.

In practice, policy evaluation is rendered challenging by the complexity of the underlying state space, which can be of finite size but prohibitively large, or continuous in nature. In most cases of interest, it is essential to use some type of function approximation to compute what is known as a projected fixed point associated with the Bellman operator. In particular, we study projected fixed point approximations that are based on non-parametric regression using reproducing kernel Hilbert spaces (RKHSs).

We provide non-asymptotic characterizations of the statistical properties of regularized kernel-based least-squares temporal difference (LSTD) estimators for policy evaluation. We study the case of infinite-horizon γ-discounted Markov reward process (MRP). The difference between the empirical and population estimators is measured in $L^2\mu$ norm, with μ denoting the stationary distribution. At a high level, the main contributions of our work are sharp and partially instance-dependent analyses of this estimation error.

We use empirical process theory techniques to derive a non-asymptotic upper bound on the error with explicit dependence on the eigenvalues of the associated kernel operator, as well as the instance-dependent variance of the Bellman fluctuation. In addition, we prove minimax lower bounds over sub-classes of MRPs, which shows that our rate is optimal in terms of the sample size n and the effective horizon $H=(1-\gamma)^{-1}$. Whereas existing worst-case theory predicts cubic scaling H^3 in the effective horizon, our theory reveals that there is in fact a much wider range of scalings, depending on the kernel, the stationary distribution, and the variance of the Bellman fluctuation. Notably, it is only parametric and near-parametric problems that can ever achieve the worst-case cubic scaling.

We further carry out a more refined analysis on how temporal dependencies and model mis-specification affect the estimation error, in particular when the dataset takes the form of one or more trajectories collected by applying the policy of interest. Such trajectory-based data opens the possibility of using more sophisticated multi-step kernel LSTD methods, including canonical k-step look-ahead TD for $k=1,2,\dots$ and the TD(λ) family for $\lambda \in [0,1]$ as special cases.

Our non-asymptotic upper bounds on estimation error reveal some delicate interactions between mixing time and model mis-specification and provides guidance on the choice of look-ahead defining the multi-step estimator itself. For a given LSTD method applied to a well-specified model, its statistical error under trajectory data is similar to that of i.i.d. sample transition pairs,

whereas under mis-specification, temporal dependence in data inflates the statistical error. However, any such deterioration can be mitigated by increased look-ahead. Our minimax lower bounds establish optimality of multi-step kernel LSTD with appropriately chosen look-ahead, and reveal some fundamental differences between value function estimation and ordinary non-parametric regression.

This talk is based on collaborations with Martin J. Wainwright and Mengdi Wang.

Tudor Manole

Tudor Manole is a fifth-year PhD candidate in the Department of Statistics and Data Science at Carnegie Mellon University (CMU), jointly advised by Sivaraman Balakrishnan and Larry Wasserman. Before moving to CMU, he completed a BSc in Mathematics at McGill University. He is broadly interested in nonparametric statistics and statistical machine learning. Most of his recent research is focused on developing inferential methods for the optimal transport problem. He is also interested in theoretical aspects of latent variable models, and has worked on applications of statistical optimal transport to data-driven modeling in high energy physics.

Tudor will give this talk in the Lawrence Brown PhD Student Award session at JSM Toronto.

Plugin Estimation of Smooth Optimal Transport Maps

The field of optimal transport has received a recent surge of interest as a methodological tool for statistical applications. One of the central objects arising from this theory is the notion of optimal transport map. For any two absolutely continuous probability distributions on $\mathbb{R}^d$, the optimal transport map is the unique function which maps samples from one distribution onto samples from the second, and further satisfies a multivariate notion of monotonicity. Such mappings have diverse applications in statistical contexts. For example, a recent line of work has used optimal transport maps to define multivariate notions of quantiles and ranks, which has led to powerful generalizations of certain classical rank-based tests for univariate observations. Optimal transport maps have also notably been used as a methodological tool in areas such as transfer learning, generative modeling, causal inference, and in a variety of applications in the sciences.

In each of these applications, it is typically of interest to estimate the optimal transport map between unknown distributions on the basis of i.i.d. samples. Over the past decade, a number of heuristic estimators have been developed in both the statistics and computer science literature, but their theoretical properties have remained unknown. In a seminal paper, Hütter and Rigollet [*Annals of Statistics* 49 (2021)] initiated the theoretical analysis of optimal transport map estimators, under smoothness assumptions. They derive the minimax L^2 rate of estimating optimal transport maps over classical smoothness classes, and show that this problem shares some of the same salient features as other function estimation problems in nonparametric statistics: optimal transport maps with high smoothness can be estimated at nearly the parametric rate, while those with low smoothness suffer a curse of dimensionality. The work of Hütter and Rigollet also derives an estimator which achieves the minimax rate, but which is computationally intractable. Their work thus leaves open the question of deriving practical estimators with optimal risk.

The aim of our work is to show that several natural, computationally tractable estimators of optimal transport maps are also minimax optimal. We adopt the plugin approach: our estimators are simply optimal transport maps between estimators of the underlying distributions. When the underlying map is assumed to be Lipschitz, we show that computing the optimal coupling between the empirical measures, and extending it using linear smoothers, already gives a minimax optimal estimator. When the underlying map enjoys higher regularity, we show that the optimal transport map between kernel or wavelet density estimators yields faster rates. Moving beyond the question of minimax estimation in L^2, we also derive the pointwise rate of convergence of our estimators, and use this to show that they obey a pointwise central limit theorem under certain conditions. These results provide first steps towards practical statistical inference for multivariate optimal transport maps.

This talk is based on joint work with Sivaraman Balakrishnan, Jonathan Niles-Weed, and Larry Wasserman.

Yuetian Luo

Yuetian Luo is currently a postdoctoral scholar in the Data Science Institute at the University of Chicago. He received his PhD in Statistics from the University of Wisconsin–Madison in 2022, advised by Anru Zhang. He is broadly interested in methodology, computation, and theory in complex and large-scale statistical inference problems. In the past, he has worked on developing efficient algorithms for high-dimensional matrix/tensor learning problems. Many of these problems are nonconvex and one of his focuses is to understand the statistical guarantees for these algorithms. Recently, he has also become interested in distribution-free inference.

Yuetian will give this talk in the Lawrence Brown PhD Student Award session at JSM Toronto.

Tensor-on-tensor Regression: Riemannian Optimization, Over-parameterization, Computational Barriers, and Their Interplay

The analysis of tensor or multiway array data has emerged as a very active topic of research in statistics, applied mathematics, machine learning, and signal processing, along with many important applications, such as neuroimaging analysis, latent variable models, and collaborative filtering. In this talk, we consider a general class of problems termed tensor-on-tensor regression, which aims to characterize the relationship between covariates and responses in the form of scalars, vectors, matrices, or high-order tensors. The generic tensor-on-tensor regression covers many special tensor regression models in literature, such as scalar-on-tensor regression, tensor-on-vector regression and scalar-on-matrix regression.

There is a great surge of interest in tensor-on-tensor regression for its applications in neuroimaging data analysis to compare MRI scans across different autism spectrum disorder groups, in facial image data analysis to predict describable attributes from a facial image and in longitudinal relational data analysis to estimate the longitudinal relation interaction effect.

In this talk, we assume the tensor responses in the tensor-on-tensor regression are connected with tensor covariates with a low Tucker rank parameter tensor/matrix without the prior knowledge of its intrinsic rank. Despite significant efforts in the literature, a couple of key questions for tensor-on-tensor regression are still missing:

1. Can we develop fast and statistically optimal solutions for the general low-rank tensor-on-tensor regression?
2. Can we solve tensor-on-tensor regression robustly without knowing the intrinsic rank of the parameter of interest?
3. Is there a statistical-computational gap in tensor-on-tensor regression? What is the difference between tensor and matrix settings?
4. Is there any interplay among Riemannian optimization, over-parameterization, and statistical-computational gap?

We aim to answer the four questions above. First, we propose the Riemannian gradient descent (RGD) and Riemannian Gauss–Newton (RGN) methods and cope with the challenge of unknown rank by studying the effect of rank over-parameterization. We provide the first convergence guarantee for the general tensor-on-tensor regression by showing that RGD and RGN respectively converge linearly and quadratically to a statistically optimal estimate in both rank correctly-parameterized and over-parameterized settings. Our theory reveals an intriguing phenomenon: Riemannian optimization methods naturally adapt to over-parameterization without modifications to their implementation. This is significantly different from the classic factorized gradient descent algorithm where preconditioning is needed in the over-parameterized setting. We also prove the statistical-computational gap in scalar-on-tensor regression by a low-degree polynomial argument. Our theory demonstrates a "blessing of statistical–computational gap" phenomenon: in a wide range of scenarios in tensor-on-tensor regression for tensors of order three or higher, the computationally required sample size matches what is needed by moderate rank over-parameterization when considering computationally feasible estimators, while there are no such benefits in the matrix settings. This shows moderate rank over-parameterization is essentially "cost-free" in terms of sample size in tensor-on-tensor regression of order three or higher. Finally, we provide efficient implementations for both RGD and RGN and conduct simulation studies to show the advantages of our proposed methods and to corroborate our theoretical findings.

This is joint work with Anru Zhang, when I was a PhD candidate in Statistics at the University of Wisconsin–Madison.

Interested in hosting the 2028 World Congress?

Bernoulli Society and IMS call for preliminary bids/expressions of interest from academics interested in running the Bernoulli–IMS World Congress at their institution in 2028. The deadline for submission is March 31st, 2023. The location of the 2028 meeting will be announced during the 11th Bernoulli–IMS World Congress in Probability and Statistics in Bochum, Germany, in 2024.

The bids should be sent to the two society presidents, Adam Jakubowski adjakubo@mat.umk.pl and Peter Bühlmann peter.buehlmann@stat.math.ethz.ch; and copied to the two society presidents-elect, Victor Panaretos panaretos@epfl.ch and Michael Kosorok kosorok@unc.edu.

The following is an excerpt from the World Congress Handbook, and is intended to aid key potential organizers in formulating a preliminary proposal.

A preliminary bid should specify names and affiliations of academics who have provisionally agreed to serve on the Local Organizing Committee. It is important that this team contains sufficiently many energetic people to cover fully the oversight of this big event, but in particular the team should also include a couple of senior academics in probability and statistics who have strong research records and international profiles, and who are prepared to commit to ensure the proposed congress will successfully add great distinction to their institution. Note that in most cases the Local Organizing Committee will obtain the services of conference organizing professionals; however our experience is that it is important that the Local Organizing Committee is strong enough and proactive enough to work constructively and creatively with the professionals in administration of the congress.

IMS and Bernoulli Society are very willing to help in terms of offering relevant advice and experience; however primary responsibility for the event lies with the Local Organizing Committee—and also of course the primary credit.

The actual formation of the scientific programme is the responsibility of the Scientific Programme Chair, who will be appointed jointly by IMS and Bernoulli Society. Typically there is very close liaison between the Scientific Programme Chair and the Chair of the Local Organizing Committee: however programme formation activity typically occurs at a much later date (for the current Congress, from about 2.5 years beforehand).

It is helpful if preliminary bids contain information about the following:

- *The proposed site for the congress. It is especially important to be clear about this if the proposed Local Organizing Committee involves names from across the immediate local region!*
- *A range of proposed dates (typically summer in northern hemisphere). The selection of this range should involve explicit consideration of various competing meetings and conferences around the world—to the extent that details are known at this advanced stage of planning.*
- *Consideration of likely attendance numbers: for this, and for much other relevant data, the World Congress history page of the Bernoulli Society will be very helpful https://www.bernoullisociety.org/history/53-general/202-history-of-the-bernoulli-society-world-congress.*
- *Meeting facilities: there needs to be access to a large auditorium potentially able to accommodate 700 attendees, in addition to an adequate supply of breakout rooms for smaller sessions, and good supply of space for fruitful discussions over tea/coffee.*
- *Accommodation: there needs to be a good supply of reasonably priced local accommodation. It is particularly helpful if some very cheap and basic accommodation is available, e.g. for younger colleagues.*
- *It is useful to supply cost estimates on venue rent, catering twice daily coffee breaks, office staff support, for a range of attendance from 500 to 700 participants.*
- *Based on the previous item, it is helpful to estimate a range of potential registration fees. As a very rough guide, registration fees should be loosely in line for example with those charged for the two series of European Meetings of Statisticians and Conferences on Stochastic Processes and Their Applications: https://www.bernoullisociety.org/meetings*

Overall cost is a particularly sensitive issue to the IMS and Bernoulli Society members, who include both young academics with very limited access to research funds, and distinguished academics from majority world countries who also find it a great challenge to secure sufficient funding to attend meetings. Neither IMS nor Bernoulli Society are in a position to provide substantial financial support, though both organizations organize special invited lectures for the Congress, thus ensuring presence of very high-visibility speakers for whom the relevant society will pay registration, accommodation and transport. It is also possible that Bernoulli Society will separately sponsor a pre-meeting (organized entirely separately to the Congress) for career-young academics, and make some bursaries available for attendance at the pre-meeting and thus at the Congress.
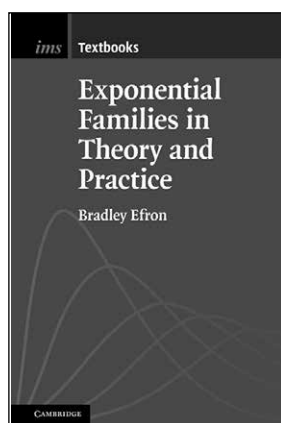
There are of course many other issues to consider, e.g.:

* Accessibility of the academic venue, like walking distance from/to hotels, public transportation, etc;

* Possible sponsors, like local universities, societies, etc;

* Visa restrictions for participants from some countries;

* Space for book exhibitions.

XL-Files: XL is X (or LX)

Photo: Harvard University

Xiao-Li Meng writes:

Aging is a process that few look forward to, but like everything else in life, it is not without its silver linings. One of them is getting invitations to toast and roast your friends (or secret foes), at their expense. In the last month alone, I was invited to an LX, an LXX, and a, well, *X* birthday symposium. The Roman numerals seem especially useful here because some ages prefer to remain anonymous. I gather few birthday stars would mind the imputing X, a perfect ten, and a symbol especially dear to our profession. Of course, I also have a self-serving reason to invoke X. No, I don't mind disclosing my age, especially as its Roman numeral is already embedded in my initials. (Incidentally, for those who make a living in the US, I assume we would all be happier to see MXL, my un-Americanized initials, than seeing its Arabic equivalent). Rather, it is because I have my own X anniversary to celebrate, and you, dear reader of the *XL-Files,* are invited. To thank you for your decade-long indulgence of my Chinglish, I offer—to the right—the XXXIII *XL-Files* choices for you to toast or roast. (Whatever you choose to do, I'd recommend it be well done. But if you prefer medium rare, well, be warned that food-for-thought poisoning is more than a thought.)

A Decade of XL-Files, from I to XXXIII

2013 **Statisticians' Impact: from Backyard to Bedroom?**

2013 **A Fundamental Link between Statistics and Humor**

2013 **If You Think Statistics is Hard, Try History…**

2013 **Statistical Classics and Classical Statistics**

2013 **From t to T**

2013 **Rejection Pursuit**

2013 **Ig Nobel and 24/7**

2013 **Romantic Regression Towards the Mean**

2014 **Nobel Prize in Statistics?**

2014 **My Valentine's Escape**

2014 **The Future of Statistics…?**

2014 **Leadership: are you open for it?**

2014 **Pray with me, statistically**

2015 **Frequent(-ist) Flu and Fiducial Cure?**

2015 **The ABC of Wine and of Statistics?**

2015 **More Joy of Statistics, not (merely) Job of Statistics**

2015 **Yo-Yo Ma on Machine (or Massive) Learning**

2016 **Lectures (Marriages?) That Last**

2016 **Peter Hall of Fame**

2016 **Statistics vs Data Science: a 30-year-old prediction?**

2016 **A Nobel Prize in Statistics, finally…**

2017 **2016, In Memory and In Memoriam**

2017 **Bayesian, Fiducial and Frequentist: BFF4EVER**

2017 **Why (good) statisticians tend to be happier**

2017 **The "IMS" Style: Inspirational, Mathematical, and Statistical**

2017 **ISIPTA-ECSQARU, BFAS-SMPS & WHOA-PSI**

2018 **It's hard to publish, but impossible to unpublish**

2018 **BFF and BGF for IMS**

2019 **Time travel and dark data**

2020 **COVID Coping and the Law of Most People**

2021 **Opinion Polling: Its Secret Sauce is also its Spoilage Source**

2022 **When a Statistician becomes a (COVID) Statistic**

2022 **I am not Yo-Yo Ma**

While you are busy cooking or savoring, an MDL (Monolayer Deep Learning) algorithm applied to the yearly tally of *XL-Files,* in the table below, reveals two periods lurking in the X years, thanks to the Roman numerals: those with V and those without it. Just in case you are thinking, "Oh no, the aging XL is regressing into a Roman numerologist", this finding is perfectly interpretable, without any overfitting. The V-years were exactly those where I was provided a team of over L members, responsible for ensuring the smooth operations of more than LV PhD programs year around; and the VC(V complement)-years started with my appointment as the founding Editor-in-Chief of *Harvard Data Science Review* (*HDSR*), where I only had (and have) the resources to recruit a team of II members. Whereas a graduate school will continue to sail or at least flow without a dean's navigation, for a start-up, every individual's involvement can be the difference between sink or swim, especially when launching anything of scale but without scalable resources. I therefore had to devote XL hours a week (sometimes I wonder if my parents foresaw that number when they named me, LX years ago) to *HDSR*, and that of course was in addition to my paid job (which reminds me annually of the Form MXL). Dropping the V from the annual count of *XL-Files* was therefore a sad but necessary coping step. It's sad because composing *XL-Files* always entertains me, with my mind meandering, ten digits dancing, and laughing gear lubricating (Hint: it's V o'clock somewhere…).

But again, every pain can generate gains, some of which are rather unexpected. The following remarks document one of those

Annual tally of *XL-Files* columns

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VIII	V	IV	IV	V	II	I	I	I	II

XL-Files continued

delightful occasions, though without the accompanying slides—or the abundant social lubricants—you need to exercise your imagination. While you are at it, could you imagine my delight of being effectively given a lavish birthday party without having to worry about getting roasted and toasted? I of course thank my coeval, Amy Brand from MIT Press, for that. Go ahead and imagine this is your free, and worry-free, celebration too, if you have the same amount of hair as me.

Xiao-Li's Remarks on celebrating the 60th anniversary of MIT Press

Yes, *Harvard Data Science Review* is published by the MIT Press. No, that's not a sign that there is an ongoing secret negotiation to merge the two parent institutions, despite at least six historical attempts made by one of them. But it does signal their different choices. Harvard University Press chooses to publish only books, whereas MIT Press publishes everything, including journals. Publishing journals is becoming an increasingly exciting, yet challenging business, because of the open access revolution. *Harvard Data Science Review* is an example of both. The open access platform encouraged *HDSR* to have a very ambitious plan. It aims to be a popular magazine, inspired by *Harvard Business Review*; a premier scholarly journal, like *Harvard Law Review*; and a cutting-edge educational publication, given education is the ultimate mission of a university. We have four categories covering perspectives, impact, education, and research, along with seven columns, reaching out to industry, government, students, teachers, and the general public. *HDSR* is extremely flexible in article styles and content, as long as they are data-science-related, from an interview with the MIT president

Xiao-Li Meng is marking ten years of writing this column: "It's V o'clock somewhere"

(I'm sure MIT students are thrilled to hear their president declaring, "Our curriculum is awfully hard"), to featuring a collection of articles like a recent one on online teaching with two courses from MIT, and their strategy for benefiting from the technology developed in the gaming industry (and I know this will relax many parents out there who will suddenly realize that their children have been spending so much time playing online games merely to prepare themselves for getting into MIT).

However, most people's initial reactions to this three-in-one and incredibly versatile platform range from "Xiao-Li, are you crazy?" to "How are you going to market this?" But the response from MIT Press leadership was nothing short of enthusiastic. My first conversation was with Nick Lindsey, the director of journals and open access, over a momentous lunch on October 19, 2018. Nick's reaction, after hearing me briefly describing what we try to accomplish, was simply "We'd love to do this". No questions asked. The reaction from Amy Brand, the Director and Publisher of MIT Press and a leading expert in scholarly communication and research

information, was the same. We quickly got into discussing how *HDSR* can be brought to serve two purposes: to increase Harvard's leadership in Data Science on the global stage, and to facilitate MIT Press's adventure in the world of open access. Yes, I did have a very ambitious vision for *HDSR*, which was to help define and shape what data science is or should be. But as Thomas Edison said, "Vision without execution is hallucination." I am therefore deeply grateful to Amy, Nick, and everyone at MIT Press, as well as the *HDSR* editorial office, for preventing me from hallucinating, and more importantly for making *HDSR* an award-winning journal within two years of its launching. Now, with over 800,000 unique users (though as a statistician, I will take that number with half as many grains of salt), it has been accessed from IP addresses originated from every country/ region around the world (except for Vatican City—so please pray with me to cross that one off the list!).

But open access is extremely costly, especially when one wants to innovate and do it well. Take this article on the authorship of Beatles songs as an example. These

interactive features cost us $18,000, and that's just for one article. I worked quite hard to raise funds, to a point that I was telling my friends that I finally got to experience what it is like to be a startup; because I had to work on raising funds, recruiting people, and creating product—or papers, in this case. However, one friend asked me, "But Xiao-Li, did you have to mortgage your house to do this?" When I said no, he said, "Then that's not a start up." Indeed, I did not need to mortgage my house because of some generous donors who believed in the *HDSR*'s vision, just as MIT Press did. *HDSR* chose MIT Press as its publisher not because MIT Press has all the resources we need, because it does not. This is exactly why MIT Press needs all the support it can have to continuously innovate and to

lead the scholarly publications in this era of open access. For those of you who are in the position to help, on behalf of all future hallucinators, I thank you for whatever you can do to support MIT Press.

I also have a piece of unsolicited advice, and it is free. During my years as Dean, I learned quite a bit about fundraising from Harvard's development office. One piece of wisdom was that if I need money, I should ask for advice, but if I need advice, then I should ask for money. Now I am quite sure MIT alumni and friends would love to prove that this Harvard wisdom was ill informed. You can accomplish that by giving Amy money whenever she asks you for money. Of course, if you want to know how much Amy really values your advice, just give her money whenever she asks for

advice, and see if she would refuse your money, and insist, "No, no, I really want your advice."

Now, if for whatever reason Amy cannot take your money, please feel free to send that check to me. I will use the funds to celebrate the fifth anniversary of the happy marriage between MIT Press and *HDSR*, and of course you will be invited. On top of that, I will send you a special inaugural volume of *HDSR*, which you can sell on eBay to recover all your generosity because it comes with my signature, which is priceless. For everything else, there is MIT Press.

Thank you and Happy Sixtieth, to MIT Press and to Amy!

....

Editor's note: Cheers, Xiao-Li, and here's to the next XXXIII XL-Files!
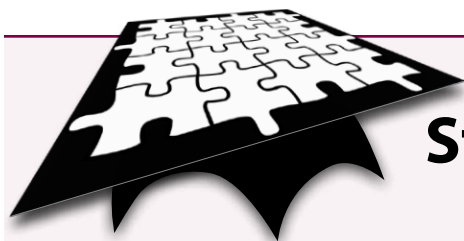
Student Puzzle Corner 42

Student Puzzle Editor Anirban DasGupta posed these two problems in the last issue. There's still time to send in your solution, to one or both.

Puzzle 42.1:
You have all seen a standard normal CDF table in a text. Typically, the table gives approximate CDF values from 0 to 5 at increments of 0.01 in the argument x. Suppose now you want the grid to be finer, with an increment of some suitable ϵ. You want to choose ϵ in a way that the largest jump in the CDF value between two successive values of x is at most 0.001. One page using standard font in a text can give 400 CDF values. How many pages will your standard normal table take? Remember, you want to cover x in the interval 0 to 5.

Puzzle 42.2:
Suppose S is a Wishart distributed $p \times p$ matrix with k degrees of freedom and parameter matrix Σ, assumed to be positive definite. Find in closed form the UMVUE of the determinant of Σ for general p, and the variance of the UMVUE for $p = 2$.

Deadline: January 25, 2023

Student members of IMS are invited to submit solutions to bulletin@imstat.org (with subject "Student Puzzle Corner"). The names of student members who submit correct solutions to either or both of these puzzles, and the answer, will be published in the issue following the deadline.

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

IMS thanks Donors to our Funds

The IMS would like to thank the following individuals for contributing to the IMS. Further contributions are welcome! Please see
https://www.imstat.org/contribute-to-the-ims/

Blackwell Lecture Fund

An endowment fund used to support a lecture in honor of David Blackwell, in order to honor Blackwell, to keep his name alive and to inspire young people to emulate his achievements. The first lecture was presented in 2014.

David Aldous; Anon.; Anon.; Kenneth & Selma Arrow; David Banks; Alicia & Robert Bell; Shankar Bhamidi; Peter & Nancy Bickel; Estate of David Blackwell; Karl & Aimee Broman; Linda Zhao & Lawrence Brown; Erhan Çinlar; Donald Cohn; Anirban DasGupta; Joan Fujimura & Kjell Doksum; Jianqing Fan; Arnoldo Frigessi; Joseph Gastwirth; Andrew & Caroline Gelman; Kenneth Griffin; Allan Gut; Donald & Janet Guthrie; Ben Hansen; Barry & Kang Ling James; Iain Johnstone; Barbara Rosario & Michael Jordan; Joseph & Caroline Ann Mitchell Kadane; Karen Kafadar; Robert Kass; Su Yeon Kim; Hira Koul; Michael Lasarev; Jing Lei; Richard Lockhart; Joshua Loftus; Sayan Mukherjee; Susan & Terrance Murphy; Michael Newton; Richard Olshen; Eugenio Regazzini; Walter Rosenkrantz; George G & Mary L Roussas; Tom Salisbury; Mary Jennings & Donald Sarason; Venkatraman E. Seshan; Juliet Shaffer; S. & D. Shreve; Terence & Freda Speed; David Steinsaltz; Virginia & Stephen Stigler; CJ Stone; William Sudderth; Guo-Qiang Zhang & Jiayang Sun; Richard Tapia; H.M. Taylor; Steven Thomson; Edward van der Meulen; Vincent Vu; Michael Waterman; Edward Waymire; Peter Wollan; Joseph Yahav; Zhaohui & Yuhong Yang; Qiwei Yao; Bin Yu & Ke-Ning Shen; Marvin Zelen; Ji Zhu

IMS General Fund

Donations support the IMS as a whole.

Eresen Arseven; Gopal Basak; Asit Basu; Peter Baxendale; Louis Chen; Herman Chernoff; David Collins; Joel Dubin; Josee Dupuis & Eric Kolaczyk; Subhashis Ghoshal; John Grice; William Harkness; Paul Holland; Fred Huffer; Lynn LaMotte; James Landwehr; Ray-Shine Lee; Thomas Louis; Donald McClure; Greg Minshall; Edsel Peña; Eswar Phadia; Gilles Pisier; Dale Preston; Laurent Saloff-Coste; Stanley Sawyer; John & Carol Schoenfelder; David Scott; Norman Severo; Lynne Seymour; Walter Sievers; Michael Stein; Steven Thomson; Donald Ylvisaker; Ken-ichi Yoshihara; Marvin Zelen; Alan Zimmerman

IMS Gift Membership Fund (2012 onwards)

Provides IMS memberships and journals for statisticians and probabilists in regions of the world where payments in hard currency would impose a difficult financial burden.

Andrew Barbour; Gopal K Basak; Ernest Bowen; Louis Chen; Herman Chernoff; Herold Dehling; Joel Dubin; Steven Ellis; Arnoldo Frigessi; Diana Gillooly; Ramanathan Gnanadesikan; Susan Gruber; Irwin Guttman; Risto Heijmans; Fred Huffer; Estate V. Khmaladze; Ernst Linder; Ryan Machtmes; Donald McClure; Edmund McCue; Luke Miratrix; Richard A. Olshen; John & Carol Schoenfelder; Walter Sievers; Charles Stein; Michael Stein; Steven Thomson; Bruce E. Trumbo; Anton Wakolbinger; Donald Ylvisaker

IMS Grace Wahba Award and Lecture Fund

Used to fund an annual lecture at JSM that honors Grace Wahba's contributions to statistics and science; including pioneering work in mathematical statistics, machine learning, and optimization; broad and career-long interdisciplinary collaborations that have had a significant impact in the fields of epidemiology, bioinformatics, and climate sciences; as well as outstanding mentoring.

Pegah Afshar; Arwen Bradley; David Callan; Bokyung Choi; Xiaowu Dai; Jianqing Fan; Feng Gao; Andrew Gelman; Zhigeng Geng; Charles Geyer; Chong Gu; Hui-Nien Hung; Hongkai Ji; Bai Jiang; Hui Jiang; Iain Johnstone; Hyunki Kim; Ryung Kim; Roger Koenker; Jing Kong; Yoonkyung Lee; Faming Liang; Xihong Lin; Yi Lin; Linxi Liu; Joshua Loftus; Fan Lu; Li Ma; Wenxiu Ma; Susan Murphy; Douglas Nychka; Richard Olshen; Tai Qin; Richard Samworth; Bernard Silverman; Michael Stein; Daniela Witten & Ari Steinberg; Paul Switzer; Chien-Cheng Tseng; Bernard Viort; Duzhe Wang; Naisyin Wang; Wing Hung Wong; Xianhong Xie; Kun Yang; Bin Yu; Ming Yuan; Anru Zhang; Hao Zhang; Min Zhang; Sheng Zhong; Qing Zhou

IMS Hannan Graduate Student Travel Fund

Used to fund travel and registration to attend and possibly present a paper or a poster at an IMS sponsored or co-sponsored meeting. Presentation of a paper/poster is encouraged, but not required.

Anon.; Gerrit Draisma; Bettie & James Hannan; Giles Hooker; Joshua Loftus; Daniel Roy

Lawrence D. Brown PhD Student Award Fund

Used to establish awards for PhD candidates in honor of Lawrence David Brown (1940–2018). This award was established with funds from Brown's family and friends. Eligible applicants will compete to be one of three speakers at an invited session as part of the IMS Annual Meeting. The award will also include reimbursement for both travel and the meeting registration fee.

Anon.; Naomi Altman; Peter & Nancy Bickel; Eileen & Harold Brown; Franklin Brown; Jane & Marshall Brown; Louis Brown; Yun Yu & Tony Cai; Alicia Carriquiry; Lisha Chen; Michael Cohen; Anirban DasGupta; Philip Dawid; Gang, Tyre, Ramer, Brown & Passman Charitable Foundation; Constantine Gastonis; Edward George; Guestrin Family Foundation; Jianqing Fan; Xu Han; Kun He; Iain Johnstone; Roger Koenker; Katherine Kopp; Robert Kopp & Farrin Anello; Arun Kuchibhotla; Elizabeth Levin; Xufeng Li; Dongyu Lin; Yi Lin; Joshua Loftus; Thomas Louis; Dorrit Lowsen; Yaakov Malinovsky; Wenxin Mao; Xiao-Li Meng; Zhanyun Zhao & Kewei Ming; Axel Munk; Forbes & Murr Families; Chaitra Nagaraja; Hui Nie; Richard Olshen; Edsel Peña; Nancy Reid; Daniel Roy; Harold Sackrowitz; Richard J. Samworth; David Scott; Paul Shaman; Haipeng Shen; Dylan Small; Daniel Solomon; Jonathan Stroud; Weijie Su; Jiayang Sun; Yves Thibaudeau; Ryan Tibshirani; Liang Wang; Xianchao Xie; Min Xu; Dan Yang; Fan Yang; Yuhong Yang; Bin Yu; Anru Zhang; Kai Zhang; Li Zhang; Linjun Zhang; Mingyuan Zhang; Ren Zhang; Linda Zhao; Jintong Zheng; Wu Zhu; Wunderkinder Foundation

IMS New Researcher Travel Award Fund

Used to fund travel and possibly other expenses to present a paper or a poster at an IMS sponsored or co-sponsored meeting, for New Researchers who otherwise would not be able to attend the meeting.

Amy Grady & Richard Smith; Axel Munk; Richard Olshen & Amy Grady; Eric Laber; Debashis Paul; Edsel Peña; David Scott; David Steinsaltz

Le Cam Lecture Fund

An endowment fund set up by friends of Lucien Le Cam to memorialize his contributions to our field. The Le Cam lecturer is an individual whose contributions have been or promise to be fundamental to the development of mathematical statistics or probability. This lecture takes place every three years.

Charles Antoniak; Miguel Arcones; Frederick Asare; Dianne Carrol Bautista; Rudolf Beran; Peter Bickel; Thomas Billings; David Blackwell; William Brady; Karl Broman; Lawrence Brown; F Thomas Bruss; Prabir Burman; Andrew Carter; Yu-Lin Chang & Pao-Kuei Wu; Gang Chen; Louis Chen; Chin Long Chiang; Bertrand Clark; Michael Cohen; Anirban DasGupta; Roger Day; Jay Devore; Kjell Doksum; David Donoho; Richard M Dudley; Lutz Duembgen; Robert Elashoff; Jianqing Fan; Kai-Tai Fang; Dorian Feldman; Thomas Ferguson; Dean Foster; Anthony Gamst; Li Gan; Jayanta Ghosh; Dennis Gilliland; Evarist Gine; Prem Goel; Alex Gottlieb; Z Govindarajulu; Priscilla Greenwood; Yuli Gu; Shanti Gupta; Peter Guttorp; Charles Hagwood; James Hannan; Paul Holland; Rafael Irizarry; Lancelot James; Paramaraj Jeganathan; Kun Jin; Iain Johnstone; Rafail Khasminski; Ja-Yong Koo; Hira Koul; Andrzej Kozek; Yury Kutoyants; Louise Le Cam; Kee-Won Lee; Ray-Shine Lee; Erich Lehmann; Lei Li; Shili Lin; Hung-Kung Liu; Albert Lo; Richard Lockhart; VS Mandrekar; James Marron; George Martin; Deborah Mayo; John McDonald; Paul Meier; Max Moldovan; Per Mykland; Peter Ney; Deborah Nolan; Richard Olshen; Michael Ostland; Davy Paindaveine; Edsel Peña; Mark Pinsky; Gilles Pisier; Madabhushi Raghavachari; RV Ramamoorthi; Guilherme Rocha; Walter Rosenkrantz; George G & Mary L Roussas; Habib Salehi; Frederic Schoenberg; Richard Smith & Amy Grady; Terry Speed; James Stapleton; Philip Stark; Charles Stein; David Steinsaltz; Stephen Stigler;

Shiaoyun Sun; Takeru Suzuki; Anders Rygh Swensen; Shigeo Takenaka; Michael Talagrand; Steven Thomson; Lanh Tran; Howard Tucker; Sara van de Geer; Constance van Eeden; Guenther Walther; Jane-Ling Wang; Yazhen Wang; Shaoli Wang; Jon Wellner; Robert Wijsman; Colin Wu & Li-Ping Yang; Shen X; Jian-Lun Xu; Grace Yang; Yuhong Yang; Yannis Yatracos; Bin Yu; Marvin Zelen; Ping Zhang; Hongyu Zhao

Open Access Fund

Supports the establishment and ongoing operation of IMS's open access publications: Probability Surveys, Statistics Surveys, Electronic Journal of Probability, Electronic Communications in Probability *and* Electronic Journal of Statistics. *Also supports the posting of all IMS journal articles to ArXiv.*

Dorothee Aeppli; Anon.; Anon.; Anon.; Ersen Arseven; Frederick Asare; Arifah Bahar; Dianne Carrol Bautista; Peter Baxendale; Thomas Billings; Ernest Bowen; William Brady; Kevin Buhr; Krzysztof Burdzy; Herminia Calvete; Kathryn Chaloner; Louis Chen; Cindy Christiansen; William Cleveland; Jose Cordeiro; Louis Cote; Catherine Crespi; Angelos Dassios; Joel Dubin; Michael Fay; Raisa (Raya) Feldman; Kostas Fokianos; Anthony Gamst; Charles Geyer; Subhashis Ghosal; Patricia Giurgescu; Charles Goldie; Christopher Green; Risto Heijmans; David Hoaglin; Robert Hoekstra; Giles Hooker; Fred Huffer; Jane Hutton; Ernesto Jardim; Brian Junker; Harry Kesten; Eric Key; Chandra Kiran Krishnamurthy; Luca La Rocca; Michael Lasarev; Zenghu Li; Yuan Liu; J Maindonald; Matthew Marler; John McDonald; Roy Mendelsohn; Maria Mendoza; William

Mietlowski; Max Moldovan; Carlos Mora Gonzalez; Peter Ney; Roberto Oliveira; Richard Olshen; Edsel Peña; Ed Perkins; Sonia Petrone; Ross Pinsky; Gilles Pisier; Igor Pruenster; Ruslan Pusev; Alex Reinhart; Andreas Ruckstuhl; Arusharka Sen; Walter Sievers; Jonathan Skinner; Richard Smith & Amy Grady; Charles Stein; David Steinsaltz; Jason Stover; Shigeo Takenaka; Steven Thomson; Lanh Tran; Bruce Trumbo; Shaoli Wang; Wojbor Woyczynski; Danyu Yang; Marvin Zelen; Huiming Zhu

Peter Hall Early Career Prize Fund

An endowment fund that provides a financial prize given annually to one or more active researchers in statistics, broadly construed, within 8 years of completion of a PhD. The award is intended to recognize excellence in research and research potential.

Anon.; Anon.; Adelchi Azzalini; David Banks; Rudolf Beran; Rabi Bhattacharya; Peter Bickel; Mary Ellen Bock; Alexandre Bouchard-Cote; Richard Bradley; Yun Yu & Tony Cai; Louis Chen; Song Xi Chen; Noel Cressie; Anirban DasGupta; Richard A. Davis; Aurore Delaigle; Yanming Di; Margaret Donald; Miki & David Donoho; Lutz Duembgen; Jianqing Fan; Andrey Feuerverger; Turkan Gardenier; Tilmann Gneiting; Prem Goel; Charles Goldie; Amy Grady & Richard Smith; Elyse Gustafson; Jeannie Hall; James J. Higgins; Giles Hooker; Tomoyuki Ichiba; Gareth James; Jiashun Jin; Bingyi Jing; Iain Johnstone; Estate Khmaladze; Claudia Kirch; Roger Koenker; Eric Kolaczyk; Luca La Rocca; Runze Li; Zenghu Li; Xinhong Lin; Shiqing Ling; Yingying Fan & Jinchi

Donate here →

Donors to IMS Funds

Peter Hall Early Career Prize Fund continued

Lv; Yanyuan Ma; Yoshihiko Maesono; James Stephen Marron; Geri & Kristina Mattson; Geoffrey McLachlan; Xiao-Li Meng; Carl Mueller; Hans-Georg Müller; Boaz Nadler; Balgobin Nandram; John Nolan; Richard Olshen; Jean Opsomer; Fredos Papangelou; Layla Parast; Byeong Uk Park; Juhyun Park; Debashis Paul; Edsel Peña; Brett Presnell; Peihua Qiu; Annie Qu; Aaditya Ramdas; Nancy Reid; Philip Reiss; Johannes Ruf; David Ruppert; Richard Samworth; David Scott; Timo Seppäläinen; Paul Shaman; Qi-Man Shao; Bernard Silverman; Dylan Small; Richard Smith/Amy Grady; Robert Smythe; Terence Speed; Clifford Spiegelman; Stephen Stigler; Stilian Stoev; Gabor Szekely; Boxin Tang; Donatello Telesca; Ryan Tibshirani; Surya Tokdar; Howell Tong; Berwin Turlach; University of Melbourne; Handan & Matt Wand; Jane-Ling Wang; Qiying Wang; Edward Waymire; Jon Wellner; Susan Wilson; Aihua Xia; William Weimin Yoo; George Alastair Young; Bin Yu; Harrison Zhou; Johanna F. Ziegel; Hui Zou

Thank you all!

Schramm Lecture Fund

Created jointly by IMS and Bernoulli Society, the annual lecture in probability and stochastic processes is named in honor of Oded Schramm. The lecture is given at meetings (co)-sponsored by IMS/BS with a strong attendance by researchers in probability and stochastic processes.

Anon.; Anon.; Anon.; Anon.; A Barbour; Cambridge University Press; Raisa (Raya) Feldman; Thomas Kurtz; Zenghu Li; Russell Lyons; John McDonald; Marina Meila; Microsoft; Sayan Mukherjee; Roberto Oliveira; Richard Olshen; Ross Pinsky; Gilles Pisier; Thomas Salisbury; Timo Seppalainen; Jeffrey Steif; David Steinsaltz; Kenneth Stephenson; Edward C. Waymire

Scientific Legacy Fund

Supports the IMS Scientific Legacy Database, which is dedicated to ensuring the preservation of valuable historical information on IMS members and leaders of our fields. The IMS uses the funds to cover the costs of the development and maintenance of the database.

Anon.; William Mietlowski; Paul Shaman; Springer

Tweedie New Researcher Fund

Originally set up with funds donated by Richard L. Tweedie's friends and family. Funds the travel of the Tweedie New Researcher Award recipient to attend the IMS New Researchers Conference and to present the Tweedie New Researcher Invited Lecture.

William Anderson; Elja Arjas; Dianne Carrol Bautista; William Brady; F Breidt; Peter Brockwell; Bradley Carlin; Alicia Carriquiry; Kathryn Chaloner; Louis Chen; John Connett; Keith Crank; William Dunsmuir; Gary & Carol Gadbury; Joseph Gani; Charles Geyer; Ramanathan Gnanadesikan; Jay & Anne Goldman; Peter Hall; Yu Hayakawa; James Hodges; Iain Johnstone; Thomas Louis; Robert Lund; Roy Mendelsohn; Sean Meyn; William Mietlowski; Max Moldovan; Philippe Naveau; Deborah Nolan; Esa Nummelin; Daniel Ocone; Roberto Oliveira; Gilles Pisier; Jeffrey Rosenthal; Kenneth Russell; J. Andrew & Lynn Eberly Scherrer; David Scott; Arusharka Sen; Lynne Seymour; David Smith; Richard Smith & Amy Grady; Terence Speed; David Steinsaltz; Naftaly & Osnat Stramer; Shigeo Takenaka; William Thomas; Surya Tokdar; Lanh Tran; Marianne Tweedie; Nell Tweedie; Cathy Tweedie; Xuan Yang; Bin Yu; Marvin Zelen; Huiming Zhu.

# Recent papers: two open-access IMS/BS journals
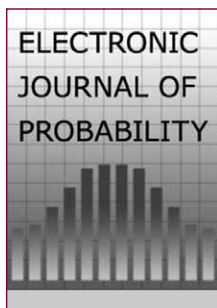
Electronic Journal of Probability

The *Electronic Journal of Probability* (*EJP*) publishes full-length research articles in probability theory. Short papers should be submitted first to its sister journal, *Electronic Communications in Probability* (*ECP*) (see below). *EJP* and *ECP* share the same editorial board, but with different Editors in Chief. The Editor of *EJP* is Bénédicte Haas. *EJP* and *ECP* are open access official journals of IMS and the Bernoulli Society. **Donations to the IMS Open Access Fund help to keep the journal free:** https://www.imstat.org/shop/donation/. You can read the latest papers in Volume 27 (2022) at **https://projecteuclid.org/journals/electronic-journal-of-probability/current**

Electronic Communications in Probability

Electronic Communications in Probability (*ECP*) publishes short, peer-reviewed research articles in probability theory (typically less than 12 pages). *ECP* shares an editorial board with the *Electronic Journal of Probability*; the Editor of *ECP* is Siva Athreya. *EJP* and *ECP* are open-access official journals of IMS and the Bernoulli Society. **Donations to the IMS Open Access Fund help to keep the journal free:** https://www.imstat.org/shop/donation/. Read the 57 papers in Volume 27 (2022) at **https://projecteuclid.org/journals/electronic-communications-in-probability/current**
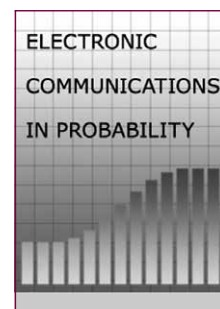
IMS Awards: nominate or apply now

Nominate a member for **IMS Fellowship** whose research in statistics or probability, or leadership in our communities, is of exceptionally high quality. Deadline January 31, 2023: https://imstat.org/honored-ims-fellows/nominations-for-ims-fellow/

Nominations are also invited for the **Carver Medal**, created by the IMS in honor of Harry C. Carver, for exceptional service specifically to the IMS. Deadline February 1, 2023: https://www.imstat.org/ims-awards/harry-c-carver-medal/.

Travel Awards for Grad Students and New Researchers

Applications are open for our two travel awards. The **IMS Hannan Graduate Student Travel Award** funds travel and registration to attend (and possibly present a paper/poster at) an IMS sponsored or co-sponsored meeting. This award is for graduate students (Masters or PhD) in statistics or probability. See https://www.imstat.org/ims-awards/ims-hannan-graduate-student-travel-award/ for more information. If you are a New Researcher (awarded your PhD in 2017–22), you should apply for the **IMS New Researcher Travel Award** to fund your travel, and possibly other expenses, to present a paper or a poster at an IMS sponsored or co-sponsored meeting. See https://www.imstat.org/ims-awards/ims-new-researcher-travel-award/ for more on this award.

Applicants for either of these travel awards must be members of IMS, though joining as you apply is allowed (remember that **student membership is free and new graduate membership is discounted!**). The deadline for both is February 1, 2023.

The deadline to nominate an early-career researcher for the **Peter Gavin Hall Early Career Prize** (https://www.imstat.org/ims-awards/peter-gavin-hall-ims-early-career-prize/) or the **Tweedie New Researcher Award** (https://imstat.org/ims-awards/tweedie-new-researcher-award/) is December 1, 2022. The **IMS Lawrence D. Brown PhD Student Award** is also open: the application deadline is May 1, 2023. Eligible applicants compete to be one of three speakers at an invited session as part of the IMS Annual Meeting (which will be the **Bernoulli–IMS 11th World Congress in Probability and Statistics**, in Germany, August 12–16, 2024).

IMS meetings around the world
Joint Statistical Meetings

2023 Joint Statistical Meetings
August 5–10, 2023 in Toronto
w https://ww2.amstat.org/meetings/jsm/2023/
The IMS Program Chair is Huixia Judy Wang, George Washington University.

....

JSM dates for 2024–2026

JSM 2024
August 3–8, 2024
Portland, Oregon, USA

IMS Annual Meeting @ JSM 2025
August 2–7, 2025
Nashville, TN, USA

JSM 2026
August 1–6, 2026
Boston, MA, USA

Seminar on Stochastic Processes (SSP2023)
March 8–11, 2023
University of Arizona, Tucson
w https://ssp2023.math.arizona.edu/home
SSP is a series of annual conferences devoted to stochastic analysis, Markov processes, and other topics of current interest in probability theory. Tutorial lectures by Gérard Ben Arous on March 8. Invited speakers: Patricia Alonso Ruiz, François Delarue (Kai Lai Chung Lecture), Jian Ding (Medallion), Patrícia Gonçalves, Philippe Sosoe. Registration open now. **Graduate students and postdoctoral fellows are especially encouraged to register and apply for financial support.**

43rd Conference on Stochastic Processes and their Applications
July 24–28, 2023 in Lisbon, Portugal
w https://www.spa2023.org/
Featuring talks by Louigi Addario-Berry (Schramm lecture), Riddhipratim Basu, René Carmona (Doob lecture), Jean-Dominique Deuschel, Massimiliano Gubinelli (Medallion lecture), Martina Hofmanova, Richard Kenyon (Medallion lecture), Gesine Reinert, Makiko Sasada, Sylvia Serfaty (Medallion lecture), and Horng-Tzer Yau (Lévy lecture). Doeblin & Itô prize lecturers to be announced.

21st INFORMS/Applied Probability Society meeting
June 28–30, 2023 in Nancy, France
w https://informs-aps2023.event.univ-lorraine.fr/
Originally scheduled for July 2021. Featuring an **IMS Medallion Lecture by Sylvie Méléard** (Ecole Polytechnique) and the Marcel Neuts Lecture by Beatrice Meini (Università di Pisa); other Plenary Lectures by Frédéric Chazal (INRIA), Sean Meyn (University of Florida) and Amy R. Ward (University of Chicago). Tutorial speakers: Paul Embrechts (ETH Zürich) and Sarah Penington (University of Bath). Registration opens soon.

Statistical Foundations of Data Science and their Applications: A conference in celebration of Jianqing Fan's 60th birthday
May 8–10, 2023 at Princeton University, New Jersey, USA
w http://fan60.princeton.edu/
The conference will bring together collaborators and leading researchers in statistics and data science. The conference will provide an excellent forum for scientific communications and promote collaborations among researchers in statistics and data science. The program covers a wide range of topics presenting recent developments and the state of the art in a variety of modern research topics on statistics and data science as well as their applications.

Southeastern Probability Conference (two in 2023)
May 15–16, 2023 at Duke University, USA, and
August 14–15, 2023 at University of Virginia in Charlottesville, USA
w https://services.math.duke.edu/~rtd/
The organizers are Juraj Foldes, Christian Gromoll, and Tai Melcher. **Graduate students and postdocs will have a chance to apply for $500 grants to partially support the cost of their attendance.** Details forthcoming.

At a glance:

forthcoming IMS Annual Meeting and JSM dates

2023

IMS Annual Meeting @ JSM: Toronto, **August 5–10, 2023**

2024

IMS Annual Meeting/ 11th World Congress: Bochum, Germany, **August 12–16, 2024**

JSM: Portland, OR, **August 3–8, 2024**

2025

IMS Annual Meeting @ JSM: Nashville, TN, USA, **August 2–7, 2025**

2026

IMS Annual Meeting: TBD

JSM**:** Boston, MA, **August 1–6, 2026**

Third Workshop on Emerging Data Science Methods for Complex Biomedical and Cyber Data
March 16–17, 2023
Augusta, Georgia, USA

w www.augusta.edu/mcg/dphs/workshop3/index.php

With the increasing importance of next-generation data, we strive to help students and young researchers develop analytical thinking, statistical reasoning, communication skills, and creativity through this Third Data Science Workshop. The workshop will be in the form of specific research overviews and lectures provided by leading experts who have done prominent work in the selected research topic areas. At the end of each of the two days, a panel discussion will be held, led by an expert panelist and all speakers of the day, for assimilating the various topics presented on the day and for addressing questions and comments from the audience. Workshop participants will learn state-of-the-art forefront data science research methods used in academia, industry, and government sector, facilitating them to be a more successful future workforce in STEM fields.

The workshop aims to educate and empower undergraduate and graduate students, postdoctoral fellows, and early career researchers and faculty members with emerging statistical methods to address the complex data arising from various fields, in particular, from biosciences and cyber science. The topics of the workshop include deep learning, statistical machine learning, differential privacy, Bayesian data integration and cybersecurity data modeling, among others.

WNAR 2023
June 18–21, 2023 in Anchorage, Alaska, USA

w https://wnar.org/wnar2023

Scientific program chair: Audrey Hendricks, University of Colorado Denver. IMS program chair: Hua Zhou, UCLA. Local organizer: Jiaqi Huang, Alaska Department of Fish and Game. Chair of Student Award Committee: Charlotte Gard, New Mexico State University.

The 2022 WNAR/IMS meeting will be held in Anchorage, Alaska from Sunday, June 18 through Wednesday, June 21, 2023. The conference will be held at Hilton Anchorage in downtown Anchorage.

Please contact local organizer Jiaqi Huang (jiaqi.huang@alaska.gov), WNAR program chairs Audrey Hendricks and Wen (Rick) Zhou (wnarprogramchair@gmail.com), or IMS program chair Hua Zhou (huazhou@ucla.edu) for more information.

2023 ENAR/IMS Spring Meeting
March 19–22, 2023. Nashville, TN, USA

w https://enar.org/meetings/spring2023/

The ENAR 2023 Spring Meeting will be held at the JW Marriott in Nashville, Tennessee. The four-day meeting, March 19–22, 2023, will have something to offer for students, researchers, and practitioners, from across all sectors. Attendees can learn about the latest developments in statistical methods, software, and applications through the scientific and educational programs. The ENAR Spring Meeting is also a great time to build your professional network and meet new collaborators, to catch up with old friends and to make new ones. The meeting offers numerous opportunities for professional development and networking, such as tutorials and round-tables, contributed and invited sessions, the meeting's career placement services, and breaks and mixers.

ENAR's Scientific Program

The diverse invited program covers a wide range of topics in biostatistics, including causal inference, clinical trial design, Bayesian analysis and inference, precision medicine, medical imaging, diagnostics and wearable device studies, microbiome and omics studies, and machine learning. Other sessions will cover career development, collaborative research, and a look back at the history of our field as IBS celebrates its 75th anniversary. The **IMS Program** Chair, Xuan Bi (University of Minnesota), has put together complementary sessions on statistical genetics and genomics, machine learning methods in biomedical data science, causal inference, brain connectivity and brain imaging genomics, clinical trial design, as well as emerging topics such as distributed health data analysis, data privacy, individualization, and mobilization. After a brief hiatus, the IMS Medallion Lecture has returned! Professor **Hongyu Zhao** from Yale School of Public Health will speak about statistical issues in genome wide association studies. The **ENAR 2023 Presidential Invited Address** will be delivered by **Sally Morton**. Dr. Morton is Executive Vice President of Knowledge Enterprise at Arizona State University, where she is also a Professor in the College of Health Solutions and the School of Mathematical and Statistical Sciences.

On March 20, there is a **Fostering Diversity in Biostatistics Workshop**, organized by Miguel Marino and Danisha Baker, with panel discussions for graduate students and professionals in academia, government, and industry to share experiences and discuss mentoring, recruiting, and retaining students. Register early: https://www.enar.org/meetings/FosteringDiversity/

Students, recent graduates, and other young professionals should plan to attend Monday's **networking mixer** and Tuesday's **networking lunch** events, both organized by the Council for Emerging and New Statisticians (CENS). This is a great opportunity to meet new people, learn about CENS and become more engaged with ENAR.

More IMS meetings

ICSA 2023 China Conference
June 30–July 3, 2023
Chengdu, Sichuan, China
w https://maths.swjtu.edu.cn/english/ICSA_2023_China_
Conference/Conference_Introduction.htm
The 2023 ICSA China Conference will be held at
Chengdu, Sichuan, China from June 30 to July 3, 2023.
It is co-organized by the Southwest Jiaotong University.
The conference venue is Jinniu Hotel (http://www.jnhotel.
com/).

The theme of this conference is *"Data Science with
Applications to Big Data Analysis and AI"*, in recognition of
the big data era.

The executive and organizing committees have been
working diligently to put together a strong and comprehen-
sive program, including keynote lectures, invited sessions,
poster sessions, junior researcher award session, and
exciting social events. Our scientific program reflects recent
challenges in statistics, business statistics, and biostatistics,
which are related to the big data analysis. The conference
will provide great opportunities for learning, networking
and collaborations. Participants will share the thoughts and
ideas with conference guests, and receive inspirations from
old research ideas and develop new ones.

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 phenom-
ena, 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.

IBS ENAR
2023 ENAR/IMS Spring Meeting
March 19–22, 2023
Nashville, TN, USA
w https://enar.org/meetings/future.cfm
Featuring an IMS Medallion Lecture by
Hongyu Zhao, Yale School of Public
Health.

2024 ENAR/IMS Spring Meeting
March 10–13, 2024
Baltimore, MD, USA
w https://enar.org/meetings/future.cfm

IMS annual meeting
**Bernoulli–IMS 11th World
Congress in Probability and
Statistics
August 12–16, 2024
Ruhr-University Bochum,
Germany**
w TBC
The Institute of
Mathematical Statistics
Annual Meeting will be
held at the 11th World
Congress.

WNAR2024
**held in conjunction with the
2024 Graybill Conference
June 9–12, 2024
Fort Collins, Colorado, USA**
https://wnar.org/Meetings
The 2024 meeting of the
Western North American
Region of The International
Biometric Society will be
joint with the Graybill
Conference. Local orga-
nizer: Rick Zhou, Colorado
State University.

IMS–APRM in Melbourne, Australia
POSTPONED TO JANUARY 2024
The sixth Institute of Mathematical
Statistics Asia Pacific Rim Meeting (IMS-
APRM) was scheduled to take place in
Melbourne, Australia in January 2021.
Due to COVID-19 and travel restrictions,
the conference has been **postponed until
January 2024**. Exact dates to be confirmed.

One World ABC Seminar: Ongoing and online
w https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/
abcworldseminar
The One World Approximate Bayesian Computation (ABC) Seminars are
monthly seminars that take place via Zoom on Thursdays, typically 9.30am
or 1.30pm [UK time]. Register to receive the webinar link via email. The
organizers welcome proposals for future talks. This webinar is part of the
larger One World seminar initiative [*see below*].

One World Probability Seminar (OWPS): Ongoing and online
w https://www.owprobability.org/one-world-probability-seminar/
Thursdays, 14:00 UTC/GMT [resuming in September]. Please subscribe to
the mailing list for updates about the upcoming seminars and other events:
https://www.owprobability.org/mailing-list

Other meetings and events around the world

IMSI programs and events in 2023

w https://www.imsi.institute/programs/
IMSI, the Institute for Mathematical and
Statistical Innovation, at the University of
Chicago, runs long programs and events.
Programs take place over an extended
period, typically several months, and
contain embedded events such as workshop.
Long programs at IMSI generally take
place during the fall and spring quarters,
and are focused on research in areas related
to IMSI's themes. Events are generally
relatively brief, up to a month long. They
include standalone lecture and panel events,
webinars, workshops, and summer schools.

Research Collaboration Workshop:
Interdisciplinary and Critical Data Science
Motivated by Social Justice
January 9–February 3, 2023
https://www.imsi.institute/activities/data-
science-motivated-by-social-justice/

Long Program: Mathematics, Statistics, and
Innovation in Medical and Health Care
March 27–June 2, 2023
https://www.imsi.institute/activities/
mathematics-statistics-and-innovation-
medical-and-health-care/

Long Program: Algebraic Statistics and Our
Changing World: New Methods for New
Challenges. Sept 18–December 15, 2023
https://www.imsi.institute/activities/
algebraic-statistics-and-our-changing-
world/

Long Program: Data-Driven Materials
Informatics: Statistical Methods and
Mathematical Analysis
March 4–May 24, 2024
https://www.imsi.institute/activities/data-
driven-materials-informatics/

Workshop: QuantCrit and Social Justice Research. January 10, 2023
https://www.imsi.institute/activities/quantcrit-and-social-justice-research/

Workshop: Driving the Justice Agenda Forward. February 2, 2023
https://www.imsi.institute/activities/driving-the-justice-agenda-forward/

Workshop: Distributed Solutions to Complex Societal Problems Reunion Workshop
February 20–24, 2023
https://www.imsi.institute/activities/distributed-solutions-to-complex-societal-problems-
reunion-workshop/

Workshop: Randomness in Topology and its Applications. March 20–24, 2023
https://www.imsi.institute/activities/randomness-in-topology-and-its-applications/

Workshop: Assessing the Economic and Environmental Consequences of Climate Change
March 31–April 1, 2023
https://www.imsi.institute/activities/assessing-the-economic-and-environmental-
consequences-of-climatechange/

Workshop: Analytics for Improved Healthcare. April 3–6, 2023
https://www.imsi.institute/activities/analytics-for-improved-healthcare/

Workshop: Machine Learning and Artificial Intelligence for Personalized Medicine
April 17–20, 2023
https://www.imsi.institute/activities/machine-learning-and-ai-for-personalized-medicine/

Workshop: Predictive Analytics, Business Modeling and Optimization in Healthcare
Operations Management. May 1–4, 2023
https://www.imsi.institute/activities/predictive-analytics-business-modeling-and-
optimization-in-healthcare-operations-management/

Workshop: Financial and Technological Innovation for Healthcare Delivery and Development
May 15–18, 2023
https://www.imsi.institute/activities/financial-and-technological-innovation-for-
healthcare-delivery-and-development/

Workshop: Summer Undergraduate Mathematics and Statistics Accelerator (SUMSA)
June 12–August 4, 2023
https://www.imsi.institute/activities/sumsa-2023/

Workshop: Laplacian Growth Models, Theory and Applications. June 26–30, 2023
https://www.imsi.institute/activities/laplacian-growth-models/

Employment Opportunities

Australia: Sydney

University of Sydney

Postdoctoral Research Associate in Mathematics and Statistics

https://jobs.imstat.org/job//66971683

Canada: Vancouver, BC

University of British Columbia

Faculty position in Education Leadership in the Department of Statistics

https://jobs.imstat.org/job//66526343

Hong Kong

The Hong Kong University of Science and Technology, Department of Information Systems, Business Statistics and Operations Management

Substantiation-track Assistant Professor

https://jobs.imstat.org/job//66197852

UAE: Abu Dhabi

NYU Abu Dhabi

Mathematics - Visiting Professor

https://jobs.imstat.org/job//66958231

UK: Coventry

University of Warwick

Assistant/Associate Professors in Statistics, Applied Statistics and Machine Learning

https://jobs.imstat.org/job//66754060

UK: Coventry

University of Warwick

Harrison Early Career Assistant Professor

https://jobs.imstat.org/job//67093206

UK: Coventry

University of Warwick

Assistant Professor (Teaching Focused)

https://jobs.imstat.org/job//67093171

UK: London

Imperial College

Senior Lecturer/Reader/Chair in Mathematical Finance and Statistics

https://jobs.imstat.org/job//67025894

United States: Berkeley, CA

University of California, Berkeley Department of Statistics

Assistant/Associate/Full Teaching Professor - Data Science and Statistics - Department of Statistics

https://jobs.imstat.org/job//66508168

United States: La Jolla, CA

University of California San Diego

Assistant Professor (tenure-track) - Data Systems Security and Privacy

https://jobs.imstat.org/job//66869555

United States: La Jolla, CA

University of California San Diego

Associate/Full Professor (tenured) - Data Systems Security and Privacy (HDSI)

https://jobs.imstat.org/job//66897510

United States: La Jolla, CA

University of California San Diego

Associate/Full Professor (tenured) - Broad Area search in Data Science (HDSI)

https://jobs.imstat.org/job//66896495

United States: La Jolla, CA

University of California San Diego

Assistant Professor - Machine Learning/Optimization (HDSI/ECE)

https://jobs.imstat.org/job//66896475

United States: La Jolla, CA

University of California San Diego

Assistant Professor - Broad Area search in Data Science (HDSI)

https://jobs.imstat.org/job//66896469

United States: Los Angeles, CA

University of California Los Angeles

Faculty Position (Open Rank) in Biostatistics

https://jobs.imstat.org/job//66896491

United States: Washington, DC

CIA

Science, Technology & Weapons Analyst

https://jobs.imstat.org/job//65521691

Columbia University
Department of Statistics

Founder's Postdoctoral Fellowship in Statistics Starting Fall 2023

Position Description: The Department of Statistics invites applications for the 2023 Founder's Postdoctoral Fellowship in Statistics at Columbia University. This fellowship seeks to bring exceptional scientists of outstanding potential to Columbia University. This two-year fellowship, with no teaching obligations, is to begin between July and September 2023. The Fellow will hold the rank of postdoctoral research scientist in the Department of Statistics. A competitive annual salary will be supplemented with generous funding for conference travel and research support.

Applications in all areas of statistics and probability will be considered: the primary selection criterion will be the candidates' exceptional promise to produce high quality and visible research. Candidates must have a PhD in statistics or related field by the date of appointment. Fellows will be expected to pursue a vigorous research agenda and to participate actively in the intellectual life of the Department.

The Department currently consists of 38 faculty members and 55 PhD students. The department has been expanding rapidly and, like the University itself, is an extraordinarily vibrant academic community. We are especially interested in candidates who, through their research, teaching and/or service, will contribute to the diversity and excellence of the academic community. Women and minorities are especially encouraged to apply. For further information about the department and our activities, centers, research areas, and curricular programs, please go to our web page at: http://www.stat.columbia.edu

Qualifications: PhD in statistics or related field by the date of appointment

Application Instructions: All applications must be submitted through Columbia's online Academic Search and Recruiting portal (ASR): apply.interfolio.com/115316
The application must include the following:
- A cover letter that explains your motivation for applying for this position and indicates your choice of mentors from the statistics faculty.
- A curriculum vitae (including a list of publications)
- A brief research statement that summarizes current research interests, past accomplishments, and future research goals. It should contain a short proposal for the research activities you plan to conduct while at Columbia.
- The names of 3 references—references will be asked to upload letters of recommendation in ASR.

Review of applications begins on January 13, 2023, and will continue until the position is filled.
Inquiries may be made to dk@stat.columbia.edu.

Salary range: $60,000-$100,000
The salary of the finalist selected for this role will be set based on a variety of factors, including but not limited to departmental budgets, qualifications, experience, education, licenses, specialty, and training. The above hiring range represents the University's good faith and reasonable estimate of the range of possible compensation at the time of posting.

Equal Employment Opportunity Statement:
Columbia University is an Equal Opportunity Employer / Disability / Veteran.

Employment Opportunities continued

United States: Washington, DC

CIA

DA Fellowship Program

https://jobs.imstat.org/job//65521688

United States: Moscow, ID

University of Idaho

Regular Faculty

https://jobs.imstat.org/job//66530556

United States: Chicago, IL

University of Chicago

Assistant Professor

https://jobs.imstat.org/job//66630893

United States: Chicago, IL

University of Chicago

Associate Professor

https://jobs.imstat.org/job//67166932

United States: Chicago, IL

University of Chicago

Assistant Professor

https://jobs.imstat.org/job//67093715

United States: Boston, MA

Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Junior Faculty Position in Biostatistics

https://jobs.imstat.org/job//66518739

United States: Framingham, MA

Framingham State University

Tenure-Track Assistant Professor of Mathematics

https://jobs.imstat.org/job//66780142

United States: Ann Arbor, MI

University of Michigan, School of Public Health, Biostatistics

Clinical Assistant Professor/Lecturer Position

https://jobs.imstat.org/job//66517753

United States: Detroit, MI

Wayne State University

Assistant Professor

https://jobs.imstat.org/job//66792227

United States: Minneapolis, MN

University of Minnesota, School of Statistics

IRSA Faragher Distinguished Postdoctoral Fellowship

https://jobs.imstat.org/job//65815943

United States: St. Louis, MO

Washington University

Inaugural Chair, Department of Statistics and Data Science

https://jobs.imstat.org/job//66851663

United States: Raleigh, NC

North Carolina State University

Department Head, Statistics

https://jobs.imstat.org/job//66517818

United States: New York, NY

Columbia University

Assistant Professor

https://jobs.imstat.org/job//66516868

United States: New York, NY

Simons Foundation, Center for Computational Mathematics

Summer Research Assistant/Associate,

https://jobs.imstat.org/job//67093923

United States: Klamath Falls, OR

Oregon Institute of Technology

Assistant Professor

https://jobs.imstat.org/job//66761163

United States: Fairfax, VA

George Mason University

Multiple, Open Rank Tenure-Track Faculty Positions

https://jobs.imstat.org/job//66524004

United States: Madison, WI

UW-Madison, Department of Biostatistics & Medical Informatics

Assistant or Associate Professor of Social Genomics - Cluster Hire (Job #268582)

https://jobs.imstat.org/job//66516590

United States: Madison, WI

University of Wisconsin-Madison Department of Statistics

Assistant Professor of Statistics - Cluster Hire

Https://jobs.imstat.org/job//66536516

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

At the time of writing, some meetings are known to be ⟦POSTPONED⟧ or canceled. Where new dates are known, they are included here. Some meetings, marked ⟦ONLINE⟧, are offering a virtual format. Please check meeting websites for updates.

Online and Ongoing

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

⟦ONLINE⟧ ⟦ims⟧ **COPSS–NISS COVID-19 Data Science Webinar series** w https://www.niss.org/copss-niss-covid-19-data-science-webinar-series

⟦ONLINE⟧ ⟦ims⟧ **One World ABC 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

January 2023

January 9–11: Scottsdale, USA. **ICHPS 2023 International Conference on Health Policy Statistics** w https://ww2.amstat.org/meetings/ichps/2023/

February 2023

February 2–4: San Francisco, USA. **CSP2023: Conference on Statistical Practice** w https://ww2.amstat.org/meetings/csp/2023/

March 2023

⟦ims⟧ March 8–11: Tucson, USA. **2023 Seminar on Stochastic Processes** w https://ssp2023.math.arizona.edu/home

◆NEW◆ ⟦ims⟧ March 16–17: Augusta, GA, USA. **Third Workshop on Emerging Data Science Methods for Complex Biomedical and Cyber Data** w www.augusta.edu/mcg/dphs/workshop3/index.php

⟦ims⟧ March 22–25: Nashville, USA. **2023 ENAR/IMS Spring Meeting** w http://www.enar.org/meetings/spring2023/

April 2023

April 4–6: Livingstone, Zambia. **2023 Zambia Conference: Better Lives for 2030** w https://www.zamstats.gov.zm/2023-iaos-isi-conference/

May 2023

⟦ims⟧ May 8–10: Princeton University, NJ, USA. **Statistical Foundations of Data Science and their Applications: Conference in celebration of Jianqing Fan's 60th birthday** w http://fan60.princeton.edu/

⟦ims⟧ May 15–16: Duke University, NC, USA. **Southeastern Probability Conference I** w https://services.math.duke.edu/~rtd

May 23–26: St. Louis, Missouri, USA. **Symposium on Data Science and Statistics** w https://ww2.amstat.org/meetings/sdss/2023/index.cfm

May 30–June 3: State College, PA, USA. **USCOTS2023: United States Conference on Teaching Statistics** w https://www.causeweb.org/cause/uscots/uscots23

June 2023

⟦ims⟧ June 18–21: Anchorage, Alaska, USA. **WNAR2023** w https://wnar.org/wnar2023

⟦ims⟧ June 28–30: Nancy, France. **21st INFORMS/APS Meeting** w https://informs-aps2023.event.univ-lorraine.fr/

◆NEW◆ ⟦ims⟧ June 30–July 3: Chengdu, China. **ICSA 2023 China Conference** w https://maths.swjtu.edu.cn/english/ICSA_2023_China_Conference/Conference_Introduction.htm

International Calendar *continued*

July 2023

NEW July 3–7: Warsaw, Poland. **34th European Meeting of Statisticians (EMS) w** https://ems2023.org

July 10–14: São Paolo, Brazil. **16th CLAPEM: Latin American Congress of Probability & Mathematical Statistics w** https://www.ime.usp.br/~16clapem/index.html

July 15–20: Ottawa, Canada. **ISI World Statistics Congress w** https://www.isi2023.org/conferences/ottawa-2023/

ims July 24–28: Lisbon, Portugal. **43rd Conference on Stochastic Processes and their Applications (SPA) w** https://www.spa2023.org/

August 2023

ims August 5–10: Toronto, Canada. **IMS Annual Meeting at JSM 2023 w** https://ww2.amstat.org/meetings/jsm/2023/

ims August 14–15: University of Virginia, USA. **Southeastern Probability Conference II w** https://services.math.duke.edu/~rtd

August 20–25: Tokyo, Japan. **ICIAM2023: 10th International Congress on Industrial and Applied Mathematics w** https://iciam2023.org/

September 2023

NEW September [TBC]: Ljubljana, Slovenia. **23rd European Young Statisticians Meeting w** https://sites.google.com/view/eysm2023

January 2024

POSTPONED *ims* January dates TBC (postponed from January 2021): Melbourne, Australia. **IMS Asia Pacific Rim Meeting (IMS-APRM2021) w** http://ims-aprm2021.com/

March 2024

ims March 10–13: Baltimore, USA. **2024 ENAR/IMS Spring Meeting w** http://www.enar.org/meetings/future.cfm

June 2024

NEW *ims* June 9–12: Fort Collins, Colorado, USA. **WNAR2024,** joint with Graybill Conference **w** https://wnar.org/meetings

July 2024

Dates TBC: Venice, Italy. **ISBA World Meeting 2024 w** https://bayesian.org/2024-world-meeting/

July 7–14: Sydney, Australia. **15th International Congress on Mathematics Education w** https://icme15.com/home

August 2024

ims August 3–8: Portland, OR, USA. **JSM 2024 w** http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

ims August 12–16: Bochum, Germany. **Bernoulli/IMS World Congress in Probability and Statistics w** TBC

August 2025

ims August 2–7: Nashville, TN, USA. **IMS Annual Meeting at JSM 2025 w** http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

August 2026

ims August 1–6: Boston, MA, USA. **JSM 2026 w** http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

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: 2023

Journals

The scientific journals of the Institute of Mathematical Statistics are *The Annals of Statistics*, *The Annals of Probability*, *The Annals of Applied Statistics*, *The Annals of Applied Probability*, and *Statistical Science*. The *IMS Bulletin* is the news organ of the Institute.

Individual Memberships

Each individual member receives the *IMS Bulletin* (print and/or electronic) and may elect to receive one or more of the five scientific journals. Members pay annual dues of $105. An additional $130 is added to the dues of members for each scientific journal selected ($87 for *Stat Sci*). **Reduced membership dues** are available to full-time students, new graduates, permanent residents of countries designated by the IMS Council, and retired members.

Individual and General Subscriptions

Subscriptions are available on a calendar-year basis. **Individual subscriptions** are for the personal use of the subscriber and must be in the name of, paid directly by, and mailed to an individual. Individual subscriptions for 2023 are available to *The Annals of Applied Probability* ($245), *The Annals of Applied Statistics* ($245), *The Annals of Probability* ($245), *The Annals of Statistics* ($245), *Statistical Science* ($202), and *IMS Bulletin* ($115). **General subscriptions** are for libraries, institutions, and any multiple-readership use. Institutional subscriptions for 2023 are available to *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Probability*, and *The Annals of Statistics* (each title $563 online only / $707 print+online), *Statistical Science* ($324/$403), and *IMS Bulletin* ($167 print). Airmail delivery is no longer offered.

IMS Bulletin

The *IMS Bulletin* publishes articles and news of interest to IMS members and to statisticians and probabilists in general, as well as details of IMS meetings and an international calendar of statistical events. Views and opinions in editorials and articles are not to be understood as official expressions of the Institute's policy unless so stated; publication does not necessarily imply endorsement in any way of the opinions expressed therein, and the *IMS Bulletin* and its publisher do not accept any responsibility for them. The *IMS Bulletin* is copyrighted and authors of individual articles may be asked to sign a copyright transfer to the IMS before publication.

The *IMS Bulletin* (ISSN 1544-1881) is published eight times per year, in January/February, March, April/May, June/July, August, September, October/November and December, by the Institute of Mathematical Statistics, 9760 Smith Rd, Waite Hill, Ohio 44094, USA. Periodicals postage paid at Cleveland, Ohio, and at additional mailing offices. Postmaster: Send address changes to 9760 Smith Rd, Waite Hill, Ohio 44094, USA or dues.subs@imstat.org. Copyright © 2023 by the Institute of Mathematical Statistics. Printed by The Sheridan Press, 450 Fame Avenue, Hanover, PA 17331, USA.

Information for Advertisers

General information: The *IMS Bulletin* and webpages are the official news organs of the Institute of Mathematical Statistics. The *IMS Bulletin*, established in 1972, is published 8 times per year. Print circulation is around 3,500 paper copies, and it is also free online in PDF format at https://www.imstat.org/ims-bulletin-archive/, posted online about two weeks before mailout (average downloads over 8,000). Subscription to the *IMS Bulletin* costs $115: call 877-557-4674 (US toll-free) or +1 216 295 2340 (international), or email dues.subs@imstat.org. The IMS website, https://imstat.org, established in 1996, receives over 30,000 visits per month.

Advertising job vacancies: A single 60-day online job posting costs just **$355.00**. We will also include the basic information about your job ad (position title, location, company name, job function and a link to the full ad) in the *IMS Bulletin* at no extra charge. See https://jobs.imstat.org

Advertising meetings, workshops and conferences: Meeting announcements here and on the IMS website at https://imstat.org/meetings-calendar/ are free. Submit your meeting details at https://www.imstat.org/ims-meeting-form/

Rates and requirements for display advertising: Display advertising allows for placement of camera-ready ads for journals, books, software, etc. A camera-ready ad should be sent as a grayscale PDF (min. 300dpi, with all fonts embedded). Email your advert to Elyse Gustafson ims@imstat.org or see https://imstat.org/advertise

	Dimensions: width x height	Rate
⅓ page *horizontal*	4.93" wide x 4.0" high (125.5 x 102 mm)	$305
⅓ page *vertical*	2.39" wide x 9.42" high (60.7 x 239.1 mm)	$305
½ page *horizontal*	7.5" wide x 4.7" high (190.5 x 119.4 mm)	$380
½ page *vertical*	3.67" wide x 9.42" high (93.1 x 239.1 mm)	$380
Full page (to edge, including ⅛" bleed)	8.75" wide x 11.25" high (222 mm x 286 mm)	$520
Full page (within usual Bulletin margins)	7.5" wide x 9.42" high (190.5 mm x 239.1 mm)	$520

Deadlines and mailing dates for *IMS Bulletin*

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**

ims

IMS: Organized September 12, 1935

THE ANNALS
of
APPLIED PROBABILITY

AN OFFICIAL JOURNAL OF THE
INSTITUTE OF MATHEMATICAL STATISTICS

Articles