Volume 50 • Issue 7

IMS Bulletin

October/November 2021

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Read it online: imstat.org/news

IMS London needs you...

Call for Contributed Talks for the 2022 IMS Annual Meeting: closes 15 February, 2022

The 2022 IMS Annual Meeting will be held in London, UK, June 27-30. We plan to hold a normal in-person conference, but with an online format as a fall-back option.

Submissions for contributed talks in Probability and Statistics are open now. Each submission should contain:

1. An indication of whether the talk is in either Probability or Statistics
2. The name, affiliation and email address of the speaker
3. The title and abstract (no more than 300 characters)

Submissions will be judged on **importance, novelty, impact and timeliness**.

The deadline for submissions is 15 February, 2022. Decisions for acceptance will be made by 15 March 2022.

Keynote Speakers lined up

The list of keynote addresses includes the inaugural **Grace Wahba Lecture** (by Michael I. Jordan); the **Wald Lectures** (Martin Hairer); the **Neyman Lecture** (Heping Zhang); the **Rietz Lecture** (Hans-Georg Müller); and five **Medallion Lectures** (Sylvia Serfaty, Rodrigo Bañuelos, Rina Foygel Barber, Vlada Limic and Roman Vershynin). In addition, Russell Lyons will be delivering the **IMS/BS Schramm Lecture**, and Krzysztof Burdzy will give the **IMS Presidential Address**.

Special Sessions

There will also be three special sessions: a **Royal Statistical Society Invited Session**, the **Lawrence Brown PhD Student Award Session**, and the **IMS New Researchers Group Session**. We'll bring you more details on these as plans develop.

Tower Bridge, London

IMS Bulletin

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Executive Committee

IMS Members' News

American Statistical Association Fellows

The American Statistical Association (ASA) has bestowed its prestigious distinction of Fellow on 48 of its members, for their professional contributions, leadership, and commitment to the field of statistical science. Among the 2021 ASA Fellows are these 12 IMS members/Fellows: Jeffrey D. Blume, Vanderbilt University School of Medicine; Li-Shan Huang, National Tsing Hua University, Taiwan; Mikyoung Jun, University of Houston; Stanislav Kolenikov, Abt Associates; Rui Song, North Carolina State University; Lily Wang, Iowa State University (now at George Mason University); Xiao Wang, Purdue University; Xiaofei Wang, Duke University Medical Center; Mark Daniel Ward, Purdue University; James G. Wendelberger, Los Alamos National Laboratory; Hongquan Xu, University of California, Los Angeles; and Yichuan Zhao, Georgia State University.

The complete list is at https://www.amstat.org/ASA/Your-Career/Awards/ASA-Fellows-list.aspx (search by year elected = 2021). Congratulations to all the Fellows.

ISI Elected Member Lan Wang

Dr. Lan Wang has been selected as an ISI Elected Member. Dr. Lan Wang is a tenured Professor in Department of Management Science at the Miami Herbert Business School of the University of Miami. Before joining University of Miami, she was a Professor of Statistics at the University of Minnesota. She earned her PhD in Statistics from the Pennsylvania State University, and her Bachelor's degree in Applied Mathematics from Tsinghua University, China. Wang's research covers several interrelated areas: high-dimensional statistical learning, quantile regression, optimal personalized decision recommendation and survival analysis. She is also interested in interdisciplinary collaboration, driven by applications in healthcare, economics, engineering and other domains. Dr. Wang is an elected Fellow of IMS and ASA, and serves on the editorial boards of *Annals of Statistics, Journal of the American Statistical Association*, and *Biometrics*. She is the incoming Co-Editor for *Annals of Statistics* (2022–2024), jointly with Professor Enno Mammen.

Xuming He: ASA Founders Award

Xuming He, University of Michigan, was one of three recipients of the ASA Founder's Award, *"For leadership in statistics and service to statistical communities at the national and international levels,"* and specifically for his many years of service on various ASA committees.

Ewain Gwynne wins inaugural David G. Kendall Award

The David G. Kendall award for young researchers is awarded jointly by the Bernoulli Society and Royal Statistical Society to recognize excellent research in Mathematical Statistics and in Probability Theory. The Award is in honor of David G. Kendall, who was the first president of the Bernoulli Society, and was awarded the RSS Guy Medal in Silver (1955) and in Gold (1981).

The inaugural 2021 David G. Kendall award is given to Ewain Gwynne. Ewain is an associate professor at the University of Chicago and a Clay research fellow. His research focuses on random geometric objects which arise in statistical mechanics, including random curves such as Schramm–Loewner evolution and random surfaces such as Liouville quantum gravity. Ewain received his undergraduate degree from Northwestern University and his PhD from MIT, advised by Scott Sheffield. Before coming to Chicago he was a postdoc at the University of Cambridge.

More Members' News

Once again, due to the ongoing pandemic, there was no in-person IMS Annual Meeting this year, as it was due to be held at the Joint Statistical Meetings in Seattle, which became a virtual conference. This meant that the IMS meetings that would normally have taken place there were held online instead, including the handover of the IMS Presidency from Regina Liu [*below left*] to Krzysztof Burdzy [*below right*].

At the online Council meeting, Regina summarized some of the milestones of the past year: the IMS Grace Wahba Award and Lecture; the formalizing of the IMS New Researchers Group; the *ACM/IMS Journal of Data Science*, inaugural issue in 2022; the Committee on Diversity, Equality and Inclusion (report coming soon); the updated IMS eNews (formerly IMS e-Bulletin) monthly email; the survey of the membership, whose findings were reported in the August *Bulletin*.

Among ongoing efforts, Regina mentioned the formation of a task force to broaden the appeal and enhance the prestige of IMS Special Lectures, the creation of an Outreach Committee, and a proposed IMS e-Library.

Once the presidential gavel was virtually passed, incoming President Chris Burdzy expressed his gratitude to his predecessors Susan Murphy and Regina Liu, and his successor Peter Bühlmann. Outgoing Program Secretary Ming Yuan, and outgoing editors Karen Kafadar, Richard Samworth, Francois Delarue, and Peter Friz were also thanked.

Chris Burdzy encourages your input in IMS matters: please reach out via president@imstat.org if you have any thoughts or questions!

Wayne Fuller receives ASA Mentoring Award

Wayne Fuller, Iowa State University, received the ASA's Mentoring Award for his *"deep understanding of the relationship between technical work in statistics and the development of individual career paths; for providing an ideal model of mentorship for students and junior colleagues; and for his generosity of spirit and sustained dedication to his students and colleagues."* Linda Young, USDA NASS, was also recognized.

Samuel S. Wilks Memorial Award

Sallie Keller, University of Virginia, was selected to receive the Samuel S. Wilks Memorial Award, *"For transdisciplinary collaborations to address complex societal problems; for research to advance data science for the public good; and for innovations in experiential education to create a dynamic, data-enabled workforce."*

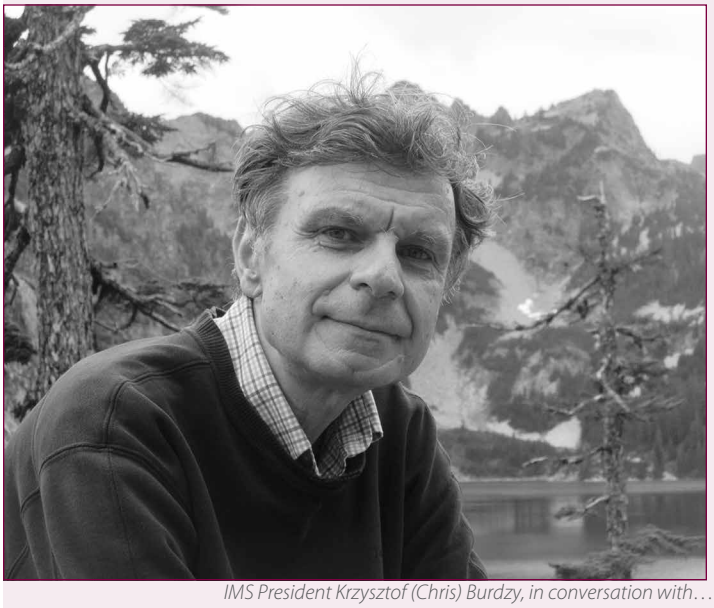
Outstanding Statistical Application Award

Eric B. Laber, North Carolina State Univ., received the ASA's Outstanding Statistical Application Award, with his co-authors Qian Guan, Brian J. Reich and Dipankar Bandyopadhyay, for their 2020 *JASA* paper, "Bayesian Nonparametric Policy Search with Application to Periodontal Recall Intervals."

A Conversation in the Polish Space

On September 8th, 2021, Krzysztof Burdzy became the President of the Institute of Mathematical Statistics (IMS). The next day Adam Jakubowski obtained the "Bernoulli Book" — the symbol of presidency of the Bernoulli Society for Mathematical Statistics and Probability (BS). Both presidents of the sister societies grew up in Poland and graduated from college in the 1970s, majoring in mathematics. Later, their career paths were completely different but each one was representative of a large segment of the Polish scientific community in their generation.

A.J.: What is the probability that the BS and IMS would have presidents of Polish origin at the same time?



IMS President Krzysztof (Chris) Burdzy, in conversation with…

K.B.: Your question gives me an opportunity for a shameless plug and for a display of Polish pride. I have published two books on the philosophical foundations of probability, titled *The Search for Certainty* and *Resonance*. According to the followers of de Finetti, symmetries in probability are subjective, so I am free to apply a symmetry in the form of equally likely events as follows. The current world population is about 7.7 billion and the current Polish population is about 38 million. Hence, the probability that the Presidents of BS and IMS would be Polish in 2021 was

$$(38 \text{ million} / 7.7 \text{ billion})^2 \approx 2.43548659 \times 10^{-5}.$$

According to the followers of von Mises, probability is equal to frequency. Out of 85 IMS Presidents preceding me, three were Polish: Jerzy Neyman, Bill Birnbaum and Mark Kac. Hence the probability of a Polish IMS President in 2021 was $3/85 \approx 0.03529$. None of the 24 BS Presidents preceding Adam was Polish. It follows that the probability of a Polish BS President in 2021 was $0/24 = 0$. The probability that both Presidents of BS and IMS would be Polish in 2021 was $0.03529 \times 0 = 0$. If you, the reader, do not like these probability calculations, please read my books on the philosophical foundations of probability.

A.J.: You applied the same method as Alexander the Great when he cut the Gordian knot. I would rather expect you to construct a suitable configuration space of paths representing our scientific lives and to calculate the probability of a coupling—the coincidence in time of our presidencies.

The calculation could be simplified by the fact that the model has a fixed point—I have been anchored at the Nicolaus Copernicus University in Toruń, Poland, for almost fifty years now (but with many international collaborations and professional travel). My attachment to Toruń was so unusual in the 1980s, when many Polish mathematicians emigrated, that when I was a Humboldt fellow in Göttingen, people used to ask me whether I was the last probabilist in Poland. I was not, of course, but the question illustrated well those times.

I seem to recall that, in contrast, your scientific path had a high quadratic variation.

K.B.: Indeed, I went to college in Lublin, Poland, and then I successively jumped to Wrocław, Poland; Berkeley, California; San Diego, California; Lublin, Poland; West Lafayette, Indiana (the home of Purdue University); and finally Seattle, Washington. Polish mathematicians emigrated not only in the 1980s. A number of them emigrated between the two World Wars, despite the fact (or because of the fact?) that this period was the heyday of Polish mathematics. The former Polish IMS Presidents, Jerzy Neyman, Zygmunt William (Bill) Birnbaum and Mark Kac, obtained their PhD degrees in Poland. In this sense, they were Polish. They were also American, having spent most of their lives in the US, and the last two were Jewish. All three were born before Poland


…Bernoulli Society President Adam Jakubowski

re-emerged in November 1918, after more than a century of partitions. The last two scientists obtained their doctoral degrees in Lwów, a city then in Poland, now in Ukraine. The lives of all three researchers illustrate well the turbulent events of the twentieth century.

A.J.: Our concurrent presidencies, an extremely improbable event, are best explained by a conspiracy theory. Our friend, Jerzy Zabczyk, a member of the Polish Academy of Sciences, pointed out that everything goes back to 1923. That year two papers were published in *Fundamenta Mathematicae:* Antoni Łomnicki's "Nouveaux fondements du calcul des probabilités" and Hugo Steinhaus's "Les probabilités dénombrables et leur rapport à la théorie de la mesure". Both papers influenced the axiomatic approach to probability theory as presented in the seminal Kolmogorov's short book *Grundbegriffe der Wahrscheinlichkeitsrechnung*. Moreover, Steinhaus was the PhD adviser of both Birnbaum and Kac (while Neyman's adviser was Wacław Sierpiński at the Warsaw University). If you put these facts together, everything becomes clear!

Our random walk in the space of historical events has brought us to the early 1920s. That was an exciting period for probability theory. In 1922 the direct part of what is nowadays called the Lindeberg–Feller Central Limit Theorem was published. Lindeberg's result was obtained by a new method that is still of interest. In 1924 Khintchine's Law of the Iterated Logarithm appeared in (once again) *Fundamenta Mathematicae*. These are just two of many examples of fundamental developments in that golden age of probability theory.

I plan to make the preparation for the celebrations of centennials of the above milestones in probability theory one of the main undertakings of my presidency. In particular, I am going to encourage organizing conference sessions placing the above cornerstone results in a historical context.

What will be the goals of your presidency?

K.B.: I am afraid that my plans pale as mundane undertakings compared to your flirtation with grand historical events. The IMS faces a number of challenges of systemic nature. Among these are diversity, equity and inclusion issues; expanding our connection with various communities comprising "data science"; improving our appeal to junior researchers to enlarge our membership base; invigorating our outreach efforts via social media and other means; and reviewing our special lecture guidelines.

I have a feeling that we have somewhat different attitudes, styles and plans—this is good news. I hope to have regular conversations with you so that I can use your complementary ideas as an inspiration. Best wishes for your presidency!

A.J.: It was great talking to you. Best wishes!

Written by Witten:

Reflections on 19 months of work from home

Daniela Witten — professor of Statistics and Biostatistics at University of Washington, and the Dorothy Gilford Endowed Chair in Mathematical Statistics, mother, Peloton fan — introduces a new column, *Written by Witten*.

Jenny Jiminez / photojj.com

It's been a long year and a half! Over the course of this pandemic, I have been through all of the Covid cliches: I hoarded toilet paper and canned hominy (my local Whole Foods was sold out in March 2020, so naturally I ordered 24 extra-large cans on Amazon), I tended my sourdough starter like a beloved pet (until I forgot about it and it got moldy… in related news, I've never had a pet), I ran a home daycare for my three kids (absolutely not an accredited childcare facility), and I purchased (and entered a committed relationship with) my Peloton. The pre-pandemic Before Times are a distant memory.

Now Fall 2021 is here, and my university has finally re-opened. It would be easy to go back into the office as though it were still the Before Times (well, except for the masks). But during this pandemic, I've learned a lot about the world, myself, and my job. In an effort to be more intentional about my life and work moving forward, I'm devoting this first column to the lessons I've learned during these past 19 months of working from home.

Learning #1: My job is not essential.

When the U.S. shut down in March 2020, everybody stayed home, except for essential workers: hospital employees, grocery clerks, firefighters, etc. You know who did not have to keep going to work? Me. Why? *Because my job is not essential*. Yes, I love my job, and I care deeply about my students, colleagues, and field. But, when push comes to shove — whether it's a pandemic or a Zombie apocalypse — the fate of the world does not rest upon my job. I'm going to try to remember this next time I'm rushing to meet a grant deadline or devastated by a paper rejection.

Learning #2: If it could be an e-mail, it should be an e-mail.

Don't get me wrong: I love my colleagues. At this point I've completely forgotten what they look like in three dimensions, and I can't wait to find out. But, during the Before Times, I also spent a ton of time commuting to campus, getting lost in the UW Health Sciences Building, changing out of my pajama pants, etc. For some meetings, this was worth it. But for others, it was … not. Sometimes an e-mail (and other times, a Zoom meeting) is enough. I'm going to save the in-person meetings for settings where the in-person component improves the experience: white-boarding with a grad student about research, lunch with a colleague, etc.

Learning #3: Make healthy lifestyle choices.

It's hard to find time to exercise and eat healthy food and sleep well when I'm in the office 8+ hours per day, and spend every other waking moment taking care of my kids, dealing with household chores, responding to work e-mails, editing manuscripts, etc. During the pandemic, because there were fewer other things to do, I was able to eat better, sleep more, and integrate regular exercise into my daily routine (did I mention my Peloton?). Shout-out to my collaborators and students who pretended not to notice when I showed up at Zoom meetings out of breath and sweaty from a work-out. I am going to find a way to maintain this in the future.

Learning #4: Travel less.

After 19 months of extremely limited travel, I have a huge backlog of personal travel: to visit my family, to take my kiddos on vacation, etc. And I've also come to realize that a lot of work travel in the Before Times was really not necessary. In the future, I am going to drastically reduce my work travel: to decrease my carbon footprint, and to be more present in my life in Seattle (which is hard to do when I'm traveling too much). Win-win.

Learning #5: Practice gratitude and kindness.

I've been very fortunate these past 19 months: I spent quarantine with my four favorite people (husband and kiddos), I collaborated (on Zoom) with talented colleagues and students, and (most importantly!) my close family and friends stayed healthy. Others have not been so lucky. Life is a hard battle, and some people's battles were particularly hard during this time. I will be grateful for my good fortune, and kind to others.

Alright, that's what I've learned. Message me on Twitter (@daniela_witten) to let me know what I missed, or the name of your favorite Peloton instructor (the answer is Cody).

COPSS Awards 2021

Huixia Judy Wang, the COPSS Treasurer/Secretary, presents the 2021 winners:

The Committee of Presidents of Statistical Societies (COPSS) presents awards annually to honor statisticians who have made outstanding contributions to the profession. For 2021, COPSS awards were presented at the Joint Statistical Meetings (JSM) on August 11 by the COPSS Chair Bhramar Mukherjee and the award committee members.

Jeffrey T. Leek of Johns Hopkins University is the winner of the **2021 Presidents' Award.** This award is presented annually to a young member of one of the COPSS participating societies in recognition of outstanding contributions to the profession. The award citation recognized Leek for *"influential work addressing high-dimensional data; for development of empirical tools for data science as a science with applications to meta-research, reproducibility, and replicability; for scaling (bio)statistics-centered data science education to millions of people worldwide; and for leveraging data science tools, educational technologies, and community partnerships to create economic opportunities in under-served communities."* We have an interview with Jeffrey T. Leek, by Huixia Judy Wang, below.

Alicia Carriquiry, Iowa State University, is the recipient of the 2021 **F.N. David Award and Lectureship**. This award, sponsored jointly with the Caucus for Women in Statistics, is granted biennially to a female statistician who serves as a role model to other women by her contributions to the profession through excellence in research, the leadership of multi-disciplinary collaborative groups, statistics education, or service to the professional societies. The citation recognized Carriquiry for *"being an outstanding role model for female and Latin American statisticians and for statisticians striving for scientific impact; for influential Bayesian, forensics, transportation, and nutrition research; for effective leadership of multidisciplinary groups; for extensive engagement in the National Academies and professional statistical societies; and for advocacy for female and early-career statisticians."* Her lecture was titled "Statistics in the Pursuit of Justice: A More Principled Strategy to Analyze Forensic Evidence."

The **George W. Snedecor Award** was presented to David Dunson, Duke University, *"for seminal and consequential advancements in the theoretical and methodological underpinnings of Bayesian modeling and inference; for significant contributions in high-dimensional statistical inference, nonparametric Bayesian modeling, and their wide-ranging applications in biomedical and natural science."*

Wing Hung Wong, Stanford University, received the **2021 COPSS Distinguished Achievement Award and Lectureship**, made for outstanding scholarship in statistical sciences that has had a highly significant impact of statistical methods on scientific investigations. The award citation recognized Wong for *"groundbreaking and fundamental contributions to statistical theory and applications, particularly in likelihood inference, Monte Carlo computation, Bayesian statistics, and computational biology."* His lecture was titled "Understanding Human Trait Variation from the Gene Regulatory Systems Perspective."

The **COPSS Leadership Academy** is a new initiative for emerging leaders in statistics, recognizing the increasingly important role that early-career statistical scientists play in shaping the future of the discipline. It is designed both to call attention to the efforts of these individuals and to provide a mechanism for them to share their vision for the field with each other and the statistical community. The nine awardees to the 2021–2024 COPSS Leadership Academy were: Emma K. Benn, Claire McKay Bowen, Tamara Broderick, Jeff Goldsmith, Stephanie Hicks, Jonas Peters, Aaditya Ramdas, Alisa Stephens-Shields, and Lingzhou Xue.


Jeffrey Leek

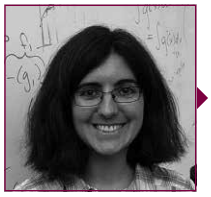

Alicia Carriquiry


David Dunson


Wing H Wong


Emma Benn


Claire Bowen


Tamara Broderick


Jeff Goldsmith


Stephanie Hicks


Jonas Peters


Aaditya Ramdas


Alisa Stephens-Shields


Lingzhou Xue

COPSS Presidents' Award 2021: Jeffrey T. Leek

Jeffrey T. Leek is a professor of Biostatistics and Oncology at the Johns Hopkins Bloomberg School of Public Health and co-director of the Johns Hopkins Data Science Lab. He has a bachelor's degree in mathematics from Utah State University and an MS and PhD in Biostatistics from the University of Washington. His group develops statistical methods, software, data resources, and data analyses that help people make sense of massive-scale genomic and biomedical data. As the co-director of the Johns Hopkins Data Science Lab, he has helped to develop massive online open programs that have enrolled more than 8 million individuals and partnered with community-based non-profits to use data science education for economic and public health development.

The Presidents' award citation recognized Jeffrey Leek *"for influential work addressing high-dimensional data; for development of empirical tools for data science as a science with applications to meta-research, reproducibility, and replicability; for scaling (bio)statistics-centered data science education to millions of people worldwide; and for leveraging data science tools, educational technologies, and community partnerships to create economic opportunities in under-served communities."*

The COPSS Secretary/Treasurer, Judy Huixia Wang, interviewed Jeffrey Leek:

What was your first reaction to winning the prestigious COPSS Presidents' Award?
I was stunned and delighted to find out I had won the COPSS Presidents' Award. I've been such an admirer of many of the past winners and it feels a little surreal to be selected. I'm incredibly grateful to my students, postdocs, collaborators, colleagues, and mentors who have made this possible and I'm just really excited to be able to share the news with them.

Which part of your job do you like the most?
My absolute favorite part of my job is the brainstorming phase of any new project, especially with a group of people with different backgrounds, experience, and ideas. The combination of learning and excitement that happens during that part of a project is the best. I've been very lucky to work with smart, fun, and nice people - it's a combination that makes it easy to want to take on new challenges.

What advice would you give to young people who are entering the profession as PhD students and assistant professors at this time?
I always feel a bit uncomfortable giving advice; it's usually worth what you pay for it… I will say that three pieces of advice I received from mentors have served me really well: find people you like to work with and prioritize who you are working with as much as what you are working on; work on things you care about, even if it isn't typical or what you think others expect; and try to find places to work where the funding aligns with what you like or want to do. I'm really impressed and excited by the things I see junior faculty, postdocs, and students doing on Twitter and I'm particularly impressed at the wide variety of different ways you can define "being a statistician"—the big tent model of statistics is awesome.

Who are your most significant mentors? How did (or do) they impact your career?
I have had many amazing mentors throughout my career! Jim Powell at Utah State University gave me my first undergraduate research experience, took me to my first conference, and encouraged my love of research. John Storey, my PhD advisor, was an amazing mentor—I was one of his early students and I really benefited from a ton of close interaction and support. He introduced me to genomics, spent tons of time helping me learn to write, taught me a framework for thinking about problems I still use, and introduced me to his collaborators and network. I really wouldn't have been able to do any of this without his early support. Giovanni Parmigiani got me a job near my wife, introduced me to the Hopkins crowd, and broadened my thinking about Biostatistics beyond genomics. Finally, Rafa Irizarry, my first faculty mentor, basically showed me all the ropes as I was getting started, helped me get connected to the broader biostatistics community, and has been a sounding board and friend for years.

There are a bunch more as well. I feel like anyone who has had the good fortune to end up in a successful place relies on a whole community of mentors, friends, and colleagues to make it possible.

Why were you drawn to biostatistics and data science?
Like many graduate students in (bio)statistics when I started my career I thought, "I like math and I want to find a way to help people." I love that statistics lets me work on problems I feel are meaningful for helping people.

Continues on **page 9**

Is there anything else you would like to share about our profession?

That one of the best parts of statistics is the community. I really have loved being a part of the statistical community—it's very broad and has all sorts of fun niches to find a group of people you can work with. For me, that happened on social media, through Twitter. Chris Volinsky got me on there at JSM 11 years ago, and it has helped me connect to so many incredible people around the world who care about statistics like I do.

Whether it's through social media, ASA committees, networking events, or conferences, I would definitely say that one of the best parts of being a statistician is all the fun people I get to work with.

Finally, what are your hobbies and interests beyond statistics?

I love to run, hike, and—when I have the time—to cook and pickle peppers. I have two highly energetic sons and also get super excited to take them out mountain biking, swimming, and coaching their sports teams. I also have been learning from them and am improving my Minecraft Dungeons level!

2022 COPSS Awards: Nominations

Please visit https://community.amstat.org/copss/home for details of eligibility and nomination requirements for all these awards. Please send nominations (preferably by e-mail in PDF format) to the committee chairs by **December 15, 2021**.

Presidents' Award

The Presidents' Award is presented annually to a young member of one of the participating societies of COPSS in recognition of outstanding contributions to the statistics profession. It is typically granted to an individual who either (i) has not yet reached his or her 41st birthday during the calendar year of the award or (ii) will be under age 46 throughout the award calendar year and will have received a terminal statistically-related degree no more than 12 years prior to that year (see COPSS website for more details on eligibility criteria). Nominations must be sent **by December 15, 2021**, preferably by email in PDF format, to:

Tianxi Cai
Chair, COPSS Presidents' Award Committee
Harvard University
Email: tcai@hsph.harvard.edu

Distinguished Achievement Award and Lectureship

The Distinguished Achievement Award and Lectureship (DAAL) is awarded annually to recognize the importance of statistical methods for scientific investigations. The 2022 award winner will deliver the lecture at the JSM in Washington D.C. Nominations must be sent **by December 15, 2021**, preferably by email in PDF format, to:

Rebecca Doerge
Chair, COPSS DAAL Award Committee
Carnegie Mellon University
Email: rwdoerge@cmu.edu

Elizabeth L. Scott Award and Lectureship

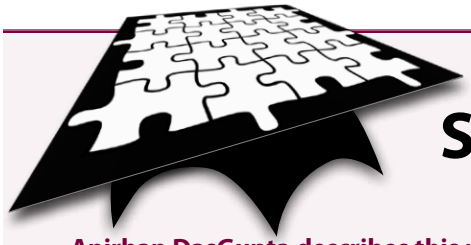
The Elizabeth L. Scott Award and Lectureship are presented biennially (even-numbered years) to an individual, male or female, who has helped foster opportunities in statistics for women. The 2022 award winner will deliver the E.L. Scott Lecture at the JSM in Washington D.C. Nominations must be sent **by December 15, 2021**, preferably by email in PDF format, to:

Rebecca Hubbard
Chair, COPSS E.L. Scott Lecture and Award Committee
University of Pennsylvania
Email: rhubb@pennmedicine.upenn.edu

COPSS Leadership Academy Award

The COPSS Leadership Academy Award was established in 2020 to recognize early-career statistical scientists who show evidence of and potential for leadership and who will help shape and strengthen the field. The award is designed both to call attention to the efforts of these individuals and to provide a mechanism for them to share their vision for the field with each other and the statistical community. Nominations should be submitted in PDF format **by December 15, 2021**, to:

Richard Samworth
Chair, COPSS Leadership Academy Award Committee
University of Cambridge
Email: r.samworth@statslab.cam.ac.uk



Student Puzzle Corner 35

Anirban DasGupta describes this problem as a blend of calculus and probability:

All of you know that for any given positive number a, $a^{1/n} \to 1$ as $n \to \infty$. How large an n does it take to get very close to 1 if we choose a randomly? Here is the exact problem.

(a) Let X have a standard normal distribution. What is the expected value of the number of times we have to extract a square root of $|X|$ for the answer to be less than 1.0001? [Be careful! Depending on the value of X, we may not have to extract a square root even once.]

(b) Now suppose X has a standard Cauchy distribution. Calculate the same expected value as in part (a) for this case.

(c) Is this expected value always finite, whatever the distribution of X?

Deadline: December 1, 2021

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, and the answer, will be published in the issue following the deadline.

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

Solution to Puzzle 34

Here's a reminder of the puzzle.

(a) X is a single observation from N(μ, σ2), where μ, σ are both completely unknown, i.e., $-\infty < \mu < \infty$, $\sigma > 0$. It is emphasized that the sample size in our experiment is n = 1. Explicitly find and plot a joint confidence region for (μ, σ) that has a coverage probability constantly equal to 0.95.

(b) Now suppose you have a sample of size n = 2. Derive and plot the corresponding joint confidence region for (μ, σ) that has a coverage probability constantly equal to 0.95, and find its expected area.

Student Puzzle Editor Anirban DasGupta explains the solution:

A constant coverage joint confidence region for (μ, σ) with a single observation X from a normal distribution is the unbounded cone

$$\{(\mu, \sigma) : \left| \frac{X - \mu}{\sigma} \right| \le 1.96\}.$$

We can make this bounded with a sample of size 2 by assigning a suitable ceiling to σ. More precisely, using standard chi-square methods, find L, U such that $P_{\mu,\sigma}(L \le \sigma \le U) = 1 - p$, where p is chosen suitably at the end.

Consider now the cone for a single X bounded in the σ axis by L and U. Its area can be calculated in closed form by calculating the areas of two triangles, and the expected area from this formula.

ISI's Florence Nightingale Prize for Data Visualization

The ISI Florence Nightingale Prize for Data Visualization is named in honor of Florence Nightingale's exemplary use of data visualization to convey statistical information. The entries for this year's prize were the winners of the Best Visualization prize from each of the local ASA DataFest sites, consisting of video analyses produced by teams of undergraduate students. The data sets used were responses to survey questions about prescription drug use. There were survey responses from the United States, Canada, the United Kingdom and Germany. Teams were asked to analyze the data from one or more of these surveys to identify patterns of drug use in that country that could be used by physicians to best advise patients and identify potential misuse. The first, second and third place teams were from Southern Methodist University, Willamette University, and UCLA, respectively.

Read more about the winners, and watch their videos, at https://www.isi-web.org/events/calendar/iywsds

Call for papers: ASA Medical Devices and Diagnostics Student Paper Award

The Medical Devices and Diagnostics (MDD) section of the ASA will sponsor Medical Devices and Diagnostic Section's student paper award, a student paper competition for JSM 2022. A manuscript suitable for journal submission is required to enter the competition.

the American Statistical Association Section on
medical devices and diagnostics
formerly the Special Interest Group on Medical Devices

Eligibility

To be eligible for this award, the applicant must be a student (undergraduate, master's, or PhD, full-time or part-time) on or after September 1, 2021, or the applicant can be within two years of graduation if the submitted work was initiated while the applicant was a student. The applicant must be first author on the paper, and the advisor (or other co-authors) must write a letter stating that the applicant had primary responsibility for the research and write-up. The applicant must be a member of the ASA MDD section.

Application materials

The deadline for application is December 15, 2021. Formal application consists of sending an email to MDDpaperJSM@gmail.com; with the following attachments (in PDF format):

1. The curriculum vitae of the applicant.
2. A letter from the advisor (or other co-authors) verifying the student status of the applicant and briefly describing the applicant's role in the research and writing of the paper.
3. A cover letter describing the contributions of the paper to MDD.
4. The paper, including all tables, figures and appendices, as a single PDF file.

Selection of winners

Papers will be reviewed by an MDD committee. Criteria for selection will include, but are not limited to, novelty in theory/methods/applications, significance and potential impact of the research, and clarity of writing and presentation. Decisions of the committee are final.

Applicants will be notified of the committee decision by January 15, 2022. The winners (including those receiving honorable mention) must submit abstracts and register for JSM by February 1, 2022 through the official JSM abstract submission system. To receive the award, the winners must register for the conference and present a talk under the auspices of the MDD on the topic of the winning paper. Those who are not selected as the winner are encouraged to submit a contributed abstract to the JSM 2022.

Prizes

MDD anticipates awarding a $1000 cash award to the 1st place winner and a $500 cash award to the 2nd place winner of the best student paper competition. The best paper winner and honorable mention winners will be presented with a certificate at the MDD section meeting at JSM.

AUGUST 6–11
2022
WASHINGTON, DC
JSM
STATISTICS: A FOUNDATION FOR INNOVATION

More information

The Medical Devices and Diagnostics section website is at http://community.amstat.org/mdd/home

Students may submit papers to no more than two sections and may accept only one section's award. Students must inform both sections applied to when he or she wins and accepts an award, thereby removing the student from the award competition for the second section.

Radu's Rides:
Those on whose shoulders we stand

Contributing Editor Radu V. Craiu would like to express his gratitude:

It should be obvious by now that some debts can never be repaid. Sometimes the attempt comes too late, or the gift is forgotten, but usually unpayable debts are usually too big to be matched. As you probably do not know, October 5 is World Teachers' Day (https://en.unesco.org/commemorations/worldteachersday) and since many of us loosely belong in this noble club, I propose we raise a glass to the profession that has been giving so much to the world. But before we do, we should also pour one out for those who helped us get where we are.

IMS is an international society and I suspect that many of its members, this writer included, have started their scholarly life in a different country, possibly a different system, than the one they currently serve. It is hard to envision the collective readership of this *Bulletin,* as diverse as it is, but I imagine all readers take some level of pride in their intellectual powers and accomplishments. Feelings of success and recognition are great, especially when they act as a force for the good, triggering the enlargement of our sense of responsibility. They can also come with pangs of impostor syndrome and, for some, survivor's guilt.

I am writing this in my mom's Bucharest apartment. She has a PhD in Probability from 1972. Some of the results in her thesis were cited in papers published at the time in reputable journals and, for a moment, there was a glimpse of hope and promise on personal and geopolitical levels. But it was not meant to be, and her life took a very different turn. Research time was regarded as a luxury and its safeguarding shrunk almost as quickly as the number of opportunities for international exchanges. Instead, she taught thousands of students, most of them fearful, some of them grateful for her keeping of mathematical standards that allowed them, those young, hungry kids who were eventually born in more auspicious times, to succeed beyond her wildest dreams. She was obviously not alone, and likely not the unluckiest. Like her, there are thousands of professors and teachers around the world who have kept the flame alive in environments that are almost incomprehensible here and now.

There were places and times where a *single copy* of an *Annals of Statistics* or a *Statistical Science*'s issue was arriving many months after its publication, its lateness accentuating its value as a vital link to the outside world of discovery and progress. The fact that these issues kept arriving was incredibly important to scientific communities that were otherwise cut off from the rest of their professional world.

This small infusion of information ensured that research could continue to be done, books to be written, and hope to be disseminated. In the absence of a traditional reward system, the most appreciated currency was the respect of one's peers, running as deep into the scientific community as it was invisible to the authorities. Brilliant people have lived in the shadows of history. For those of us who entered the stage at the exact time the fences were bust open, the choice of what to do next was preordained.

Others have written or spoken about the difficult transition performed by students or fully fledged researchers migrating from one side of the world to another — or as some would say, from the past into the future. Expatriation is undertaken in search of a better life, but often the price is quite high. Learning, late in life, to function in a new culture and language is difficult and so is the separation from the social and familial cocoon in which one is formed. The academics' adaptation to a new world can be slightly easier to sustain when it is nourished by the ideation tendrils that keep alight their spirit, regardless of surrounding circumstances. A mathematician or statistician may have to change the language and mores they use to deal with life's immanence, but the *other,* universal, language is transcendent and will carry them through. I am therefore doubly grateful to those who have taught me and, in doing so, have given me the only kind of passport I know of that is universally recognized.

I sometimes like to end these *Rides* with an invitation or a suggestion for bringing some sort of upgrade into the IMS world. This time I am afraid that I will have to deviate from this overly optimistic (naïve?) habit. No single IMS member will be able to repay the debt they have incurred in achieving success; nor will we, as a professional society, be able to remove displacement and misplacement from the world. We can, however, try to embrace its diversity, understand its differences, value and help its talents, and honor its unsung heroes.

Happy Teachers' Day!

Nominate for IMS Awards

Carver Award

Nominations are 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, 2022: https://www.imstat.org/ims-awards/harry-c-carver-medal/.

IMS Fellows

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, 2022: https://imstat.org/honored-ims-fellows/nominations-for-ims-fellow/

Early-Career Awards

The **Peter Gavin Hall Early Career Prize**: (https://www.imstat.org/ims-awards/peter-gavin-hall-ims-early-career-prize/) recognizes early-career research accomplishments and research promise in statistics, broadly construed. ("Early-career" meaning someone who received their doctoral degree in one of the eight calendar years preceding the year of nomination, or in the year of nomination—so, for the 2022 prize, that means any of the years 2014–2021. The IMS gives the award committee latitude to consider nominees with extenuating circumstances that may have delayed professional achievements.) Any IMS member can nominate, and nominees do not need to be IMS members. The deadline is December 1, 2021. The award consists of a plaque, a citation, and a cash honorarium.

The **Tweedie New Researcher Award**, created in memory of Richard Tweedie, provides funds for travel to present the **Tweedie New Researcher Invited Lecture** at the IMS New Researchers Conference. Nominations should be received by December 1, 2021: see the instructions at https://imstat.org/ims-awards/tweedie-new-researcher-award/

…or apply for a Travel Award

Awards for Grad Students, 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 Masters or PhD students in statistics or probability. If you are a New Researcher (awarded your PhD in 2016–21), you should apply for the **IMS New Researcher Travel Award** to fund travel, and possibly other expenses, to present a paper or a poster at an IMS sponsored or co-sponsored meeting. Applicants must be members of IMS, though joining as you apply is allowed (student membership is free and new graduate membership discounted!). The deadline for both is February 1, 2022. See https://www.imstat.org/ims-awards/.

Recent papers

Annals of Statistics: Volume 49, No. 3, June 2021

The *Annals of Statistics* aims to publish research papers of the highest quality reflecting the many facets of contemporary statistics. Primary emphasis is placed on importance and originality. The Co-Editors are Richard J. Samworth and Ming Yuan. Access papers at **https://projecteuclid.org/info/euclid.aos**

Continues on **page 14**

Recent papers continued

Annals of Statistics: Vol. 49, No. 3, June 2021 continued

Annals of Applied Statistics: Volume 15, No. 2, June 2021

Statistical research spans an enormous range from direct subject-matter collaborations to pure mathematical theory. The *Annals of Applied Statistics* is aimed at papers in the applied half of this range. Our goal is to provide a timely and unified forum for all areas of applied statistics. The Editor in Chief is Karen Kafadar.

Access published papers at **http://projecteuclid.org/euclid.aoas**

Obituary: Peter Whittle

1927–2021

Peter Whittle, who died on 10 August 2021 at 94 years of age, will be remembered as a pioneer across the fields of probability, statistics and optimization. He wrote a number of important papers, but it is in his books that one can best appreciate the broad sweep of his achievements and the simplicity, unity and generality of his approach. His twelve major volumes covered times series, prediction, constrained optimization, dynamic programming, optimal control, stochastic systems, the foundations of probability theory and neural nets. Several of these works were ahead of their time: indeed some of his early works appear to have been written for the audience of today, such is the extent to which they anticipated subsequent developments.

Peter Whittle was born in Wellington, New Zealand, in February 1927, graduating from the University of New Zealand with a BSc in mathematics and physics in 1947 and an MSc in mathematics in 1948. He intended a career in mathematical physics, but vacation work in the NZ Department of Scientific and Industrial Research (DSIR) offered statistical problems from agriculture and biometrics that attracted his scientific interest, and his first paper was on the design of experiments.

A travelling scholarship in 1949 took Peter to Uppsala, Sweden, for his doctoral work under Hermann Wold. A profound influence on Peter was Maurice Bartlett, then working in Manchester. Peter began his work on time series analysis, and in his doctoral thesis and four subsequent papers, he essentially solved the large-sample inference problem for a stationary time series generated by a linear Gaussian model. The terms "multivariate Whittle likelihood" and "Whittle estimation" are now common, but this early groundbreaking work was not at the time widely appreciated: Peter remarked that, perhaps in unconscious emulation of the admired Bartlett, he wrote too gnomically. In marked contrast his corresponding analysis for spatial processes, published in 1954, had an immediate and sustained impact. His asymptotic inference theory for Gaussian processes and related spatial processes was ahead of its time in considering power law covariance functions, which are now central in image analysis.

In 1952 as an unknown young PhD, Peter made his first visit to the Statistical Laboratory, Cambridge. He fondly described the experience: John Wishart politely pretended to know who he was and gave him a cup of tea; Frank Anscombe's courtesy was plainly innate; and Henry Daniels regarded him with quizzical amiability.

After Uppsala, Peter returned in 1953 to New Zealand and the DSIR: his work on NZ rabbits (pests of the first order) produced the Whittle threshold theorem for stochastic process models of an epidemic. Oscillations in oceanographic data uncovered non-linear effects. His time-series work led into the study and statistical analysis of spatial models. During this period Peter also became interested in polymerisation and in reversibility, both topics he would return to later. Peter believed that his subsequent interests and career were largely shaped by his time here, working on problems from geophysics, agriculture and industry. His superior there later wrote "His genuine interest in people and their work, his boyish sense of humour and lack of pretension, made it possible for him to carry his own intellectual pre-eminence without exciting jealousy or antagonism."

Peter returned to Britain in 1959 as a lecturer in the Statistical Laboratory,

Peter Whittle in 1985 (photo by Peter Lofts)

Cambridge, where his colleagues were Dennis Lindley and Maurice Walker, and where his research students included John Bather and John Kingman. In 1961 he moved to the Chair of Mathematical Statistics at Manchester, succeeding Maurice Bartlett and with David Silvey and Toby Lewis as colleagues, and with Henry Daniels in Birmingham as a kindred spirit. Peter's interest in optimization developed at Manchester; he kept his interest in spatial processes, with his student David Brook producing an early result on Markov random fields; and he obtained his first results on networks of queues and partial balance.

In 1967 Peter returned to Cambridge as the Churchill Professor of Mathematics for Operational Research, a newly established chair endowed by Esso through the active management of David Kendall. The position gave Peter the perfect platform for his vision that what needed developing was not just narrow sense operational research, but the whole area of what in Cambridge is now termed applicable mathematics. This includes, for example, probability, statistics, optimization, game theory and those aspects of disciplines such as control theory, communications theory and mathematical economics which might be pursued by someone technically based in probability and optimization. Developments in the US had convinced Peter of not only the practical importance of these topics but also the depth and coherence of the theory

Continues on **page 16**

Peter Whittle, 1927–2021 continued

they generate. He felt that the subject of statistics itself is thoroughly penetrated by optimization concepts and is only viewed aright when embedded in this larger context (a view now taken for granted in statistics generally and in areas such as machine learning). Peter set about the task of creating the new courses to deliver this vision, and this began an evolution of the Mathematical Tripos at Cambridge that has continued to this day. He served as Director of the Cambridge Statistical Laboratory from 1973-1986.

By the time of Peter's second major work on time series (*Prediction and Regulation*, 1963, revised 2nd ed. 1983) his interest had moved from inference to prediction and control. His four volumes on optimization marked his continuing interest in stochastic control, and in temporal optimization generally, using dynamic programming ideas. *Optimization under Constraints* (1971) is shot through with insight in a prose style combining power and economy. Notable in *Optimization over Time* (1983) is Peter's treatment of the multi-armed bandit problem. Despite its whimsical name this problem – the sequential allocation of effort in the presence of uncertainty –arises in areas as varied as the design of clinical trials or the choice of exploration avenues in artificial intelligence. The problem was first formulated during World War II and, as Peter famously remarked, efforts to solve it so sapped the energies of Allied analysts that the suggestion was made that the problem be dropped over Germany, as the ultimate instrument of intellectual sabotage. Later, in *Risk-Sensitive Optimal Control* (1991) the very complete theory for the linear/quadratic/Gaussian case is transferred to a significantly more general case.

His vision for the whole area of applicable mathematics was by now well established, providing the mathematical foundations for central areas of engineering and economics. Mathematicians often do not see the impact of their work on other fields. It is noteworthy that in the Foreword to the second edition of *Prediction and Regulation*, Thomas Sargent, later awarded the Nobel Prize in Economics for empirical research on cause and effect in the macroeconomy, writes on the importance of Peter's work for understanding dynamic economic phenomena.

His book *Probability via Expectation* (1970, expanded in 2000) is an exposition of probability theory that formulates its axioms in terms of expectation rather than measure – in Peter's view, this approach has advantages at many levels. One advantage is that probability theory and probability of quantum theory are seen to differ in only a modification of the axioms – a modification rich in consequences, but (as in so much of Peter's work) succinctly expressible. The book was published in Russian in 1982, quite a compliment in view of the special role Russian authors played in the development of probability theory.

Peter had a life-long interest in statistical/physical models, and the book *Systems in Stochastic Equilibrium* (1986) collects as one of its parts Whittle's work on polymerization and random graphs, and also his work on partial balance in networks. His work on networks continued with *Neural Nets and Chaotic Carriers* (1998) and *Networks: Optimization and Evolution* (2007). In his final years he maintained his interest in neural nets, finding the notions of self-optimizing and self-organizing systems both fascinating and of enormous potential. But even he might have been surprised to see the pace of the ongoing realignment of mathematics, with statistics, optimization and machine learning permeating applied mathematics and leading to remarkable advances across swathes of physical, biological and social science.

Peter considered himself fortunate in the colleagues he found in English academic life, whose qualities he thought included goodwill and a presumption of goodwill, leading to a cheerful directness and unspoken community. Among numerous honours, he was awarded the RSS Guy Medals in both Silver (1966) Gold (1996); the Sylvester Medal of the Royal Society, and the INFORMS Lanchester Prize and John von Neumann Theory Prize. He was a Fellow of the Royal Society and of IMS, and an International Member of the US National Academy of Engineering.

Peter Whittle married Käthe Blomquist in 1951, and they had six children. Käthe was Finnish and they had met in Uppsala. They did their courting in Swedish, their only common language.

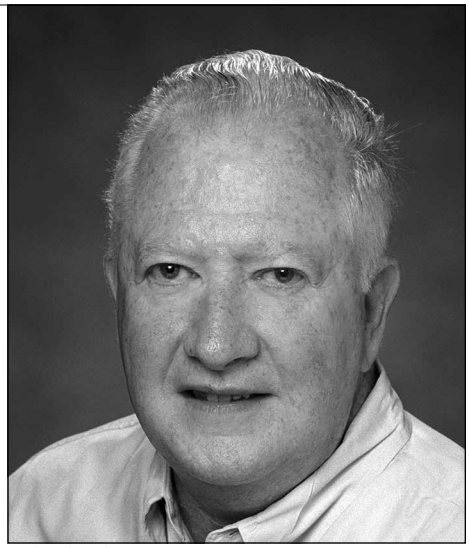
At school in New Zealand Whittle played the flute, and he got pleasure from making and playing instruments throughout his life. Languages were another interest: French, Swedish and Russian early in his life, and after retirement Scottish Gaelic whose evocative charms fascinated him. He was a talented runner (achieving 4 minutes 36 seconds for the mile) and kept up distance running into his later years. He enjoyed carpentry, DIY and toymaking, finding them a useful counterweight to his academic work.

Peter's wife Käthe died in 2020. He is survived by their six children, seven grandchildren and one great granddaughter. Throughout his life he greatly missed New Zealand, and asked that his ashes be cast into the waters of Island Bay, Wellington, New Zealand, which he had grown up overlooking.

This is an abridged version of an obituary by Frank Kelly, Statistical Laboratory, University of Cambridge, and published by the Royal Statistical Society.

Obituary: Richard Fox

1942–2020



Richard "Rich" Fox

Richard "Rich" J. Fox, a longtime member of the Institute of Mathematical Statistics and of the Marketing Department faculty at the University of Georgia, died December 2, 2020, at this home in Athens, Georgia. He was 78.

Born in New York, Rich earned his undergraduate degree from the University of Dayton and then went to Michigan State, where he earned his Master's and PhD in mathematical statistics.

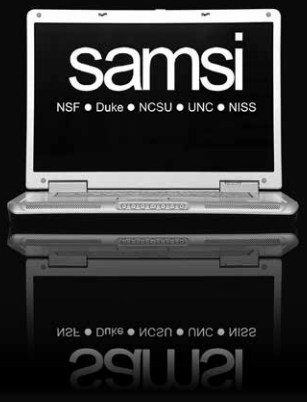
After he graduated from Michigan State in 1968, Rich worked in corporate marketing research in Cincinnati, where he met his wife, Jill, and a decade later in Atlanta. From 1969–79, he was a senior analyst and consumer research group leader with Procter & Gamble. He joined Kenneth Hollander Associates Inc. in Atlanta as vice president for quantitative research, working with a number of corporate clients. In 1982, he became the manager of market research and marketing information for Atlanta-based Nimslo Corp., which was introducing a stereo camera for the consumer market that produced 3D pictures.

Rich joined the Marketing Department at the Terry College of Business as an associate professor in 1983 and taught market research and quantitative analysis to Master of Marketing Research (MMR) and PhD students, as well as undergraduate marketing courses. He served as the interim department head in 2007–08 and retired in 2010, but he continued to serve as part-time faculty until Fall 2020, teaching courses and supervising research projects for students in the MMR program.

Known for bringing his extensive professional experience into the classroom, Rich was honored many times for his teaching, including being named the Master of Marketing Research Teacher of the Year by the Class of 2020. He is remembered for his vibrant storytelling and dry wit. He was a statistical guru and trivia genius who loved sports, music, the performing arts, history, nature and animals, with a special place in his heart for golden retrievers. From his childhood, he was a dedicated fan of the New York Giants (football and baseball), New York Rangers, and New York Knicks, and through the years he traveled all over the country to watch their games.

A memorial service was held December 10, 2020, at Athens Memory Gardens, with Lord & Stephens in charge of arrangements. Rich is survived by his two daughters, Tracy Fox Shannon and Danielle Marie Fox-Baruta, and their families; his sister, Maureen McCarthy, and her extended family; and his brother and sister-in-law, Jack and Georgette Mackenzie, and their extended family. Memorial donations can be made to the Wounded Warrior Project or to Golden Retriever Rescue of Atlanta.

Written by David Dodson, University of Georgia



SAMSI Closes its Doors

After two decades of advancing research in statistics, applied mathematics and domain science, SAMSI closed down at the end of August 2021. It celebrated its achievements with a final conference (in hybrid format) on August 21, where a host of distinguished speakers addressed a range of topics to which SAMSI has contributed, including astrostatistics, climate science, risk analysis, and others.
SAMSI Director David Banks said, "SAMSI was a great institution, and did a lot of good for the statistical world. It was a ladder for career growth for junior researchers, and its many postdoctoral fellows have advanced our community. Its influence will continue to be felt for decades, as the research fields and partnerships that began at SAMSI continue to produce important new work."

IMS meetings around the world

Joint Statistical Meetings: 2021–2026

2022 Joint Statistical Meetings
August 6–11, 2022. Washington DC
w https://ww2.amstat.org/meetings/jsm/2022/
Topic-Contributed Proposal Submission: November 11 – December 9, 2021.
Contributed Abstract Submission: December 1, 2021 – February 1, 2022

JSM dates for 2023–2026

IMS Annual Meeting @ JSM 2023	JSM 2024	IMS Annual Meeting @ JSM 2025	JSM 2026
August 5–10, 2023	August 3–8, 2024	August 2–7, 2025	August 1–6, 2026
Toronto, Canada	Portland, Oregon, USA	Nashville, TN, USA	Boston, MA, USA

BNP13: the 13th Conference on Bayesian Nonparametrics NEW
October 24–28, 2022 in Puerto Varas, Chile
https://midas.mat.uc.cl/bnp13/
This meeting continues the successful series of Bayesian Nonparametric Workshops. It aims to gather in Chile leading experts in this already consolidated and rapidly expanding field for a full week of plenary, invited, contributed and poster talks, reflecting the many and varied aspects of the theoretical, methodological, and applied work in the discipline. At the same time, we expect to attract many young researchers to the event, especially those residing in South America and in Chile. The event features three keynote lectures (free topic), invited and contributed sessions, spanning all the wide spectrum of theory, methodology and applications of Bayesian methods from the nonparametric viewpoint. These include asymptotics, advanced computation, robustness, inference in high-dimensional settings, deep learning, machine learning, uncertainty quantification, clustering and applications.

Second Workshop: Emerging Data Science Methods for Complex Biomedical and Cyber Data
October 14–15, 2021. Augusta University, Augusta, Georgia
w https://www.augusta.edu/mcg/dphs/workshop2/
The workshop features several eminent speakers who are pioneers in the fields of data science including big data analytics. The workshop aims to foster the collaborative research between data science/statistics and other disciplinary science for the purpose of meeting the very hardest and most important data and model-driven scientific challenges, and for enhancing the much needed skills of the next generation workforce.

2022 IMS Annual Meeting UPDATED
June 27–30, 2022. London, UK
w www.imsannualmeeting-london2022.com
CALL FOR CONTRIBUTED TALKS: see website for details.
Mark your calendars for the 2022 IMS Annual Meeting. Held in London immediately before COLT, with extra one-day workshop planned [*see announcement, right*] between the two meetings. Program and Local Chair: Qiwei Yao.

2022 IMS–COLT Joint Workshop
July 1, 2022. London, UK
w https://bguedj.github.io/colt-ims-2022.github.io/
The 2022 IMS Annual Meeting [*see left*] will be immediately followed by the first IMS–COLT joint workshop, a one-day meeting in a hybrid format (on-site in central London, and online), linking the IMS and COLT communities of researchers. (COLT is the annual Conference on Learning Theory, and will take place in 2022 immediately after this IMS–COLT workshop day.)
Committee: Benjamin Guedj (chair), Peter Grünwald, Susan Murphy.

At a glance: forthcoming IMS Annual Meeting and JSM dates

2022

IMS Annual Meeting: London, UK, **June 27–30, 2022**

JSM: Washington DC, **August 6–11, 2022**

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**

More IMS meetings around the world

Stochastic Networks

NEW

June 20–24, 2022. Cornell Univ., Ithaca, NY

w https://sites.northwestern.edu/snc2022/

Stochastic networks is a multifaceted area of research concerned with the modeling, stability, control, performance, approximation, and design of stochastic networks. It gives rise to challenging and subtle mathematical problems, whose solution often requires a combination of ideas and techniques from several branches of mathematics, including probability theory, stochastic processes, analysis, optimization, algorithms, combinatorics, and graph theory. Research in this area is strongly motivated by applications in diverse domains, ranging from telecommunications and manufacturing to service operations, biological and social networks, revenue management, and health care. The conference series, initiated in 1987 and held biennially, is a major forum for researchers to learn of the latest developments and new research directions in stochastic networks.

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 fortnightly seminars that take place via Zoom on Thursdays at 11:30am, UK time. The idea is to gather members and disseminate results and innovation during these weeks and months under lockdown. 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/future-seminars

Thursdays, 14:00 UTC/GMT. Please subscribe to the mailing list for updates about the upcoming seminars and other events: https://www.owprobability.org/mailing-list

Frontier Probability Days

UPDATED

December 3–5, 2021, Las Vegas, Nevada

w http://lechen.faculty.unlv.edu/FPD20/

Registration (required but free) open until Oct 16, 2021. Support available: grad students and postdoctoral fellows are especially encouraged to apply.

Seminar on Stochastic Processes (SSP) 2022

March 17–19, 2022

Lehigh University, Bethlehem, PA, USA

w https://wordpress.lehigh.edu/ssp2021/

The SSP at Lehigh University is postponed to 2022. Speakers are: Alexei Borodin, Jennifer Chayes, Tadahisa Funaki, Sarah Penington, Makiko Sasada), with the SSP Tutorial Lecture by Greg Lawler planned for March 18, 2022. Details forthcoming.

ENAR

UPDATED

2022 ENAR/IMS Spring Meeting

March 27–30, 2022. Houston, TX, USA

w https://enar.org/meetings/future.cfm

The ENAR 2022 Spring Meeting will be held at the Marriott Marquis Houston from March 27–30. The ENAR Spring Meeting offers a superb program of short courses, tutorials, and roundtables. Presented by well-known experts from academia, government, and industry, the short courses and tutorials will cover a variety of topics including: Bayesian methods in drug development, personalized medicine trial designs, analysis of brain imaging data, data sciences and high-performance statistical computing, early phase clinical trials, statistical leadership and influence, graphics for clinical trial data, and software applications for group sequential and adaptive designs, Bayesian modeling and analysis, and multiplicity problems. **The abstract submission deadline for all contributed and invited papers/posters is October 15, 2021.**

2023 ENAR meeting: March 22–25, 2023. Nashville, TN, USA

2024 IMS annual meeting

Bernoulli–IMS 11th World Congress in Probability and Statistics

August 12–16, 2024

Ruhr-University Bochum, Germany

w TBC

Statistics in the Big Data Era

June 1–3, 2022

UC Berkeley, CA, USA

w https://simons.berkeley.edu/workshops/statistics-big-data-era

The conference was rescheduled from June 2021 to June 1–3, 2022 Update coming soon.

IMS Asia Pacific Rim Meeting 2022

January 4–7, 2022, Melbourne, Australia

w http://ims-aprm2021.com/

The sixth IMS-APRM was scheduled to take place in Melbourne in January 2021; it is now postponed until January 2022. IMS-APRM will provide an excellent forum for scientific communications and collaborations for the researchers in Asia and the Pacific Rim, and promote communications and collaborations between the researchers in this area and those from other parts of the world. The program covers a wide range of topics in statistics and probability. Invited Session Proposals submitted in 2020 are being kept on file.

Other meetings around the world

Informs Annual Meeting
October 24-27, 2021
Anaheim, CA, USA (and online)
https://meetings2.informs.org/wordpress/anaheim2021/

The 2021 INFORMS Annual Meeting is a unique opportunity to connect and network with the more than 5,000 INFORMS members, students, prospective employers and employees, and academic and industry experts who comprise the INFORMS community.

The Biomedical Data Science Innovation Lab at University of Virginia is seeking applications for the **2021-2022 BDSIL: Ethical Challenges of AI in Biomedicine**. This program is designed to foster the development of multidisciplinary teams and tackle the challenges of ethically working with datatypes in support of AI systems. It is anticipated that teams formed during the event will result in new peer-reviewed publications or NIH/NSF grant proposals. We are inviting **US-based researchers at the late-stage postdoctoral and early-stage junior faculty level working in the quantitative and data sciences and the biomedical fields** to apply to this free, innovative academic workshop program. The 5-day in-person event will be June 13–17, 2022 in Charlottesville, Virginia. Please visit the BDSIL website: http://innovation.lab.virginia.edu/ Accepting applications on a rolling basis until **January 31, 2022**.

2021 Women in Statistics and Data Science Conference
October 6–8, 2021. VIRTUAL.
https://ww2.amstat.org/meetings/wsds/2021/index.cfm

The 2021 Women in Statistics and Data Science Conference aims to bring together hundreds of statistical practitioners and data scientists, to highlight the achievements and career interests of women in statistics and DS. Senior, mid-level, and junior stars representing industrial, academic, and government communities will unite to present their life's work and share their perspectives on the role of women in today's statistics and data science fields. The event features two engaging short courses: Leslie McClure, Drexel University, on *Charting Your Course for Leadership Success;* and Ashley Antonides, Anno.AI, on *MLOps and Data: Managing Large ML Datasets with DVC.* The short courses are ticketed events that require an additional fee.

The Institute for Mathematical and Statistical Innovation (IMSI) is a mathematical sciences research institute funded by the National Science Foundation. It is managed by the University of Chicago, Northwestern University, the University of Illinois at Chicago, and the University of Illinois at Urbana-Champaign, and is hosted at the University of Chicago. IMSI is running a Long Program in 2022:

Decision Making and Uncertainty
March 21–May 27, 2022
https://www.imsi.institute/activities/decision-making-and-uncertainty/

Economics, finance, and business activities like marketing, operations management, and R&D, all substantially rely on the use of formal, mathematical approaches to model human behavior, agents' interaction, trading exchanges, mitigation of risks, and more. However, these areas are all rich enough that many important challenges are as yet unmet and new ones are constantly arising. For example, recent advances in data science, new platforms and means of human interaction, the growing speed of trading exchanges and flow of information, and various technological and other breakthroughs are all fertile ground motivating the use of new mathematical and statistical models and methods.

The mathematical sciences can play a crucial role by providing a platform on which to build and analyze innovative and complex models and as well as rigorous frameworks to solve the associated problems. However, this alone is not enough to make breakthrough progress. An intense scientific dialogue is needed so that the analysis of real-world problems may benefit from mathematical and statistical innovations, while, at the same time, the discipline and focus provided by such problems may help the mathematics from becoming remote from the real-world challenges. The intention of this program is to create and facilitate such an interdisciplinary dialogue by bringing together mathematicians, statisticians, economists, computer scientists, and researchers from operations research and business.

While there are many areas in need of high-level mathematical and statistical analysis, the program will focus on two broad directions covering a quite large spectrum of problems in social sciences.

The first direction is **decision making and optimization** (e.g. of expected utility or expected costs) under model ambiguity and potential misspecification; the second direction is the **interface between decision making and machine learning**.

The activities of the program will include presentations by the participants (long- and short-term visitors), panel discussions, talks by industry researchers and others, and a number of week-long thematic workshops that will focus on specific applications, paired with presentations on modeling aspects as well as on related methodologies and technical approaches.

See the website for details of the program workshops.

Employment Opportunities

Austria: Klosterneuburg

Institute of Science and Technology Austria

Assistant Professor (tenure-track) and Professor positions in Data Science

https://jobs.imstat.org/job/assistant-professor-tenure-track-and-professor-positions-in-data-science/58347632/

Canada: Vancouver, BC

University of British Columbia

Assistant Professor (Tenure Track) in Statistics

https://jobs.imstat.org/job/assistant-professor-tenure-track-in-statistics/58813230/

China: Shenzhen

Georgia Tech Shenzhen Institute,Tianjin University

Faculty Positions in Statistics & Operations Research at Georgia Tech Shenzhen Institute

https://jobs.imstat.org/job/faculty-positions-in-statistics-operations-research-at-georgia-tech-shenzhen-institute/58990096/

Switzerland: Lausanne

EPFL

Tenure Track Assistant Professor or a Tenured Associate Professor

https://jobs.imstat.org/job/tenure-track-assistant-professor-or-a-tenured-associate-professor/58863348/

Switzerland: Zürich and Lausanne

PSI and EPFL

Head of Laboratory for Simulation and Modeling (LSM) at PSI and Professor of Applied & Computational Mathematics at EPFL

https://jobs.imstat.org/job/head-of-laboratory-for-simulation-and-modeling-lsm-at-psi-and-professor-of-applied-computational-mathematics-at-epfl/58459539/

Taiwan: Taipei

National Taiwan University, Institute of Statistics and Data Science

Faculty Positions at National Taiwan University--Institute of Statistics and Data Science

https://jobs.imstat.org/job/faculty-positions-at-national-taiwan-university-institute-of-statistics-and-data-science/58875216/

Taiwan: Taipei City

Institute of Statistical Science, Academia Sinica, Taiwan

Tenure-Track Faculty Positions

https://jobs.imstat.org/job/tenure-track-faculty-positions/54387703/

UK: London

Imperial College London

Lecturer/Senior Lecturer in Statistics

https://jobs.imstat.org/job/lecturersenior-lecturer-in-statistics/58630817/

United States: Tempe, AZ

Arizona State University

Assistant / Associate / Full Professor - Biostatistics

https://jobs.imstat.org/job/assistant-associate-full-professor-biostatistics/58413795/

United States: Tempe, AZ

Arizona State University

Lecturer Biostatistics

https://jobs.imstat.org/job/lecturer-biostatistics/58412892/

United States: Tempe, AZ

Arizona State University - School of Mathematical & Statistical Sciences

Open Rank (Assistant/Associate/Full Professor) in Theoretical Mathematics

https://jobs.imstat.org/job/open-rank-assistantassociatefull-professor-in-theoretical-mathematics/58892051/

United States: Tempe, AZ

Arizona State University - School of Mathematical & Statistical Sciences

Assistant Professor in Applied and Computational Mathematics

https://jobs.imstat.org/job/assistant-professor-in-applied-and-computational-mathematics/58915695/

United States: Berkeley, CA

University of California, Berkeley, Department of Statistics

Assistant/Associate/Full Professor - Probability - Department of Statistics

https://jobs.imstat.org/job/assistantassociatefull-professor-probability-department-of-statistics/58937289/

Employment Opportunities

Taiwan: Taipei City

Institute of Statistical Science, Academia Sinica, Taiwan

Tenure-Track Faculty Positions

The Institute of Statistical Science of Academia Sinica is pleased to invite applications for our tenure-track faculty positions. Academia Sinica, the most preeminent academic research institution in Taiwan, offers a secured research environment facilitated with rich collaboration opportunities as well as the freedom of conducting independent research. With a strong tradition of theoretical and interdisciplinary research, the Institute of Statistical Science is aiming for global excellence in mathematical statistics and various statistical applications.

Applications are invited for tenure-track appointments as Full/ Associate/ Assistant Research Fellows (equivalent to Full/ Associate/Assistant Professors in Universities) at the Institute of Statistical Science to commence on August 1, 2022 or as soon as possible thereafter. Applicants should possess a Ph.D. degree in Statistics, Biostatistics, Computer Science, Data Science or related areas, and should submit: (1) a cover letter, (2) an up-to-date curriculum vita, (3) a detailed publication list, (4) a research proposal, (5) three letters of recommendation, (6) representative publications and/or technical reports and (7) advisers' names of master and PhD degrees. Additional supporting materials such as transcripts for new Ph.D. degree recipients may also be included. Electronic submissions are encouraged. Applications should be submitted to

Dr. I-Ping Tu

Chair of the Search Committee
Institute of Statistical Science, Academia Sinica

128 Sec. 2 Academia Road, Taipei 11529, Taiwan, R.O.C.
Fax: +886-2-27886833

E-mail: recruit@stat.sinica.edu.tw

Application materials should be received by **December 31, 2021** for consideration, but early submissions are encouraged.

United States: Hayward/Concord, CA

California State University East Bay

Assistant Professor of Statistics and Biostatistics , Tenure-Track Faculty
https://jobs.imstat.org/job/assistant-professor-of-statistics-and-biostatistics-tenure-track-faculty/58044922/

United States: Irvine, CA

University of California, Irvine

Assistant Professor Position - Department of Statistics - University of California, Irvine
https://jobs.imstat.org/job/assistant-professor-position-department-of-statistics-university-of-california-irvine/58765145/

United States: Los Angeles, CA

USC Marshall - Data Sciences and Operations

Professor of Clinical Data Sciences and Operations (Open Rank)
https://jobs.imstat.org/job/professor-of-clinical-data-sciences-and-operations-open-rank/58765825/

United States: Los Angeles, CA

USC Marshall School of Business- Data Sciences and Operations

Professor of Data Sciences and Operations-Statistics (Open Rank)
https://jobs.imstat.org/job/professor-of-data-sciences-and-operations-statistics-open-rank/58915479/

United States: Los Angeles, CA

UCLA Statistics

UCLA Assistant Professor
https://jobs.imstat.org/job/ucla-assistant-professor/58990078/

United States: Santa Cruz, CA

University of California Santa Cruz

Statistics Department: Visiting Assistant Professor
https://jobs.imstat.org/job/statistics-department-visiting-assistant-professor/58989707/

United States: Stanford, CA

Stanford University

Faculty Position - Stanford University, Data Science & Wu Tsai Neuro

https://jobs.imstat.org/job/faculty-position-stanford-university-data-science-wu-tsai-neuro/58646518/

United States: Stanford, CA

Stanford University School of Medicine

Assistant, Associate, or Full Professor of Biomedical Data Science

https://jobs.imstat.org/job/assistant-associate-or-full-professor-of-biomedical-data-science/58897337/

United States: Stanford, CA

Stanford University, Department of Statistics

Associate or Full Professor (Teaching) in Data Science

https://jobs.imstat.org/job/associate-or-full-professor-teaching-in-data-science/58486089/

United States: Stanford, CA

Stanford University, Department of Statistics

Stein Fellow in Statistics or Probability

https://jobs.imstat.org/job/stein-fellow-in-statistics-or-probability/58485986/

United States: Washington, DC

Central Intelligence Agency

Economic Analyst

https://jobs.imstat.org/job/economic-analyst/57919517/

United States: Champaign, IL

Department of Statistics University of Illinois at Urbana-Champaign

Assistant Professor Positions in Statistics and Data Science

https://jobs.imstat.org/job/assistant-professor-positions-in-statistics-and-data-science/58765633/

United States: Chicago, IL

University of Chicago Booth School of Business

Assistant/Associate Professor of Econometrics & Statistics

https://jobs.imstat.org/job/assistantassociate-professor-of-econometrics-statistics/58745508/

United States: Evanston, IL

Northwestern University, Dept of Statistics

Open Rank Tenure-Track or Tenured Faculty Position Statistics / Data Science

https://jobs.imstat.org/job/open-rank-tenure-track-or-tenured-faculty-position-statistics-data-science/58894046/

United States: Bloomington, IN

IU School of Public Health

Dept. of EOH Assistant, Associate, or Full Professor

https://jobs.imstat.org/job/dept-of-eoh-assistant-associate-or-full-professor/58285981/

United States: Notre Dame, IN

University of Notre Dame

Assistant, Associate or Full Professor in Data Science and/or Statistics - Multiple Positions

https://jobs.imstat.org/job/assistant-associate-or-full-professor-in-data-science-andor-statistics-multiple-positions/58915759/

United States: Lexington, KY

University of Kentucky, Dr. Bing Zhang Department of Statistics

Assistant Professor - Statistics

https://jobs.imstat.org/job/assistant-professor-statistics/58805855/

United States: Boston, MA

Boston University

Assistant Professor in Statistics

https://jobs.imstat.org/job/assistnat-professor-in-statistics/58666373/

United States: Cambridge, MA

Harvard University Department of Statistics

Assistant Professor of Statistics

https://jobs.imstat.org/job/assistant-professor-of-statistics/58266385/

United States: Ann Arbor, MI

University of Michigan, Department of Biostatistics

Tenure-Track Faculty Position in Biostatistics

https://jobs.imstat.org/job/tenure-track-faculty-position-in-biostatistics/58811177/

United States: Ann Arbor, MI

University of Michigan, Department of Biostatistics

Open Rank Faculty Position in Biostatistics

https://jobs.imstat.org/job/open-rank-faculty-position-in-biostatistics/58889547/

United States: Ann Arbor, MI

University of Michigan

Tenure-Track Assistant Professor

https://jobs.imstat.org/job/tenure-track-assistant-professor/58033492/

United States: Minneapolis, MN

University of Minnesota, School of Statistics

Tenure Track Assistant Professor

https://jobs.imstat.org/job/tenure-track-assistant-professor/58348246/

United States: Durham, NC

Fuqua School of Business, Duke University

Assistant Faculty Positions

https://jobs.imstat.org/job/assistant-faculty-positions/50588894/

United States: Piscataway, NJ

Department of Statistics Rutgers University-New Brunswick, School of Arts & Sciences

Tenure-Track Faculty Positions

https://jobs.imstat.org/job/tenure-track-faculty-positions/59002384/

United States: New York, NY

NYU Stern

2022-2023 Assistant Professor of Statistics (full-time, tenure-track)

https://jobs.imstat.org/job/2022-2023-assistant-professor-of-statistics-full-time-tenure-track/58743576/

United States: Philadelphia, PA

University of Pennsylvania, Wharton Department of Statistics and Data Science

Assistant Professor of Statistics and Data Science

https://jobs.imstat.org/job/assistant-professor-of-statistics-and-data-science/58178679/

United States: University Park, PA

Pennsylvania State University

Tenure Track Faculty - Department of Statistics

https://jobs.imstat.org/job/tenure-track-faculty-department-of-statistics/58509337/

United States: Columbia, SC

University of South Carolina

Assistant Professor and Open Rank (Assistant/Assoc./Full Professor)

https://jobs.imstat.org/job/assistant-professor-and-open-rank-assistant-associate-or-full-professor/58763362/

United States: Brookings, SD

South Dakota State University

Assistant/Associate Professor - Statistics

Https://jobs.imstat.org/job/assistantassociate-professor-statistics/58358350/

United States: College Station, TX

Texas A&M University, Department of Statistics

Faculty Positions Available

https://jobs.imstat.org/job/faculty-positions-available/58348014/

United States: Alexandria, VA

Institute for Defense Analyses

Research Associate - Test Science

https://jobs.imstat.org/job/research-associate-test-science/59002118/

United States: Alexandria, VA

Institute for Defense Analyses

Research Analyst - Test Science

https://jobs.imstat.org/job/research-analyst-test-science/59002099/

United States: Seattle, WA

Fred Hutchinson Cancer Research Center

Faculty Position in Biostatistics

https://jobs.imstat.org/job/faculty-position-in-biostatistics/58289156/

United States: Seattle, WA

Fred Hutch

Faculty Position in Infectious Disease Phylodynamics / Genomic Epidemiology

https://jobs.imstat.org/job/faculty-position-in-infectious-disease-phylodynamicsgenomic-epidemiology/58875195/

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

October 2021

NEW October 6–8: Online. **Women in Statistics and Data Science** **w** https://ww2.amstat.org/meetings/wsds/2021/index.cfm

NEW October 24–27: Anaheim, CA, USA, and Online. **Informs Annual Meeting** **w** https://meetings2.informs.org/wordpress/anaheim2021/

December 2021

NEW ims December 3–5: Las Vegas, USA. **Frontier Probability Days** (NEW DATES) **w** http://lechen.faculty.unlv.edu/FPD20/

Image: freepik.com/vwalakte

January 2022

ims January 4–7 (postponed from January 2021): Melbourne, Australia. **IMS Asia Pacific Rim Meeting (IMS-APRM2021)** **w** http://ims-aprm2021.com/

March 2022

ims March 17–19 (postponed from March 2021): Bethlehem, PA, USA. **Seminar on Stochastic Processes (SSP)** **w** https://wordpress.lehigh.edu/ssp2021/

NEW March 21–May 27: Chicago, IL, USA. **Decision Making and Uncertainty** **w** https://www.imsi.institute/activities/decision-making-and-uncertainty/

ims March 27–30: Houston, TX, USA. **ENAR Spring Meeting** **w** http://www.enar.org/meetings/future.cfm

May 2022

May 12–18: Erice, Italy. 7th Workshop on Stochastic Methods in Game Theory **w** https://sites.google.com/view/erice-smgt2020/the-workshop

June 2022

ims June 1–3: Berkeley, CA, USA (rearranged from June 2021). **Statistics in the Big Data Era, and Peter Bickel's 80th birthday** **w** https://simons.berkeley.edu/workshops/statistics-big-data-era

NEW June 13–17: Charlottesville, VA, USA. **Ethical Challenges of AI in Biomedicine** **w** http://innovation.lab.virginia.edu/

June 14–18: Paphos, Cyprus. **International Symposium on Nonparametric Statistics, ISNPS** **w** http://cyprusconferences.org/isnps2022/

June 20–23: Timisoara, Romania. **23rd Conference of the Romanian Society of Probability and Statistics** **w** https://spsr.ase.ro/conferinta-nationala-spsr/

ims June 27–30: London, UK. **IMS Annual Meeting** **w** www.imsannualmeeting-london2022.com

Continues on **page 25**

International Calendar *continued*

July 2022 continued

June 27–July 1: Darwin, Australia. **Joint Southern Statistical Meetings 2022 (JSSM2022)**
w https://statsoc.org.au/event-3529236

July 2022

ims July 1: London, UK. **IMS–COLT one-day workshop** (between IMS meeting and COLT meeting, details to be announced)
w https://bguedj.github.io/colt-ims-2022.github.io/

July 10–15: Riga, Latvia. **XXXI International Biometric Conference (IBC2022)** **w** www.biometricsociety.org/meetings/conferences

July 18–22: Moscow, Russia. **33rd European Meeting of Statisticians** **w** https://ems2022.org/

August 2022

August 2–13: Campinas, Brazil. **São Paulo School of advanced science on singular stochastic partial differential equations and their applications**
w https://www.ime.unicamp.br/spas2022//

ims August 6–11: Washington DC, USA. **JSM 2022**
w https://ww2.amstat.org/meetings/jsm/2022/

August 21–25: Newcastle, UK. **International Conference for Clinical Biostatistics** **w** http://www.iscb.info/

October 2022

NEW ims October 24–28: Puerto Varas, Chile. **BNP13: Bayesian Nonparametrics** **w** https://midas.mat.uc.cl/bnp13/

July 2023

July 15–20: Ottawa, Canada. **64th ISI World Statistics Congress**
w TBC

August 2023

ims August 5–10: Toronto, Canada. **IMS Annual Meeting at JSM 2023** **w** http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

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

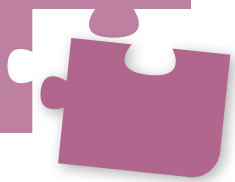
August 2025

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

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 $110 is added to the dues of members for each scientific journal selected ($70 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 2021 are available to *The Annals of Applied Probability* ($225), *The Annals of Applied Statistics* ($225), *The Annals of Probability* ($225), *The Annals of Statistics* ($225), *Statistical Science* ($185), and *IMS Bulletin* ($115). **General subscriptions** are for libraries, institutions, and any multiple-readership use. Institutional subscriptions for 2021 are available to *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Probability*, and *The Annals of Statistics* (each title $525 online only / $618 print+online), *Statistical Science* ($301/$352), and *IMS Bulletin* ($146 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. 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 $329.00. 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/EPS (min. 300dpi) with all fonts embedded. Email your advert to Audrey Weiss, IMS Advertising Coordinator admin@imstat.org or see https://imstat.org/advertise

	Dimensions: width x height	Rate
⅓ page	4.9" wide x 4" high (125 x 102 mm)	$285
½ page	7.5" wide x 4" high (190 x 102 mm)	$355
⅔ page	4.9" wide x 8" high (125 x 203 mm)	$415
Full page (to edge, including ⅛" bleed)	8.75" wide x 11.25" high (222 mm x 286 mm)	$480
Full page (within usual *Bulletin* margins)	7.5" wide x 9.42" high (190 mm x 239 mm)	$480

Deadlines and Mail 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

Volume 50 · Issue 7

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

IMS: Organized September 12, 1935

364 (print)
6 (online)

Ann. Statist. August 2021
https://projecteuclid.org/aos

THE ANNALS of STATISTICS

AN OFFICIAL JOURNAL OF THE
INSTITUTE OF MATHEMATICAL STATISTICS

Memorial issue for Charles Stein

Articles

Continued on back cover

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