Volume 49 • Issue 5

IMS Bulletin

August 2020

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IMS Election Results


Krzysztof (Chris) Burdzy

We are pleased to announce the 2020 election results, and introduce the newly elected members of IMS Council. The next President-Elect is Krzysztof (Chris) Burdzy, and the five new members of Council are: Tony Cai, Richard Davis, Alice Guionnet, Martin Wainwright and Fang Yao. All of them will serve a three-year term, starting at the IMS Council and Business meeting which will be held online this year, on September 1.

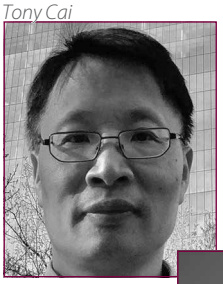
The new Council members will be joining 10 other Council members: **Christina Goldschmidt, Susan Holmes, Xihong Lin, Richard Lockhart** and **Kerrie Mengersen**, who will serve another year; and **Ed Perkins, Gesine Reinert, Christian Robert, Qi-Man Shao** and **Alastair Young**, who will be on Council for another two years.

Peter Hoff, Greg Lawler, Antonietta Mira, Axel Munk and **Byeong Park** will be stepping down after their three-year terms on Council.

Council is also made up of the Executive Committee members and Editors. From the coming IMS online meeting, the Executive Committee will be made up of **Regina Liu** as President, **Susan Murphy** as Past President, **Chris Burdzy** as President-Elect, **Zhengjun Zhang** as Treasurer, **Ming Yuan** as Program Secretary, and **Edsel Peña** as Executive Secretary. **Xiao-Li Meng** will be leaving the Executive Committee after his three year term. The Editors are **Francois Delarue** and **Peter Friz** (*Annals of Applied Probability*), **Amir Dembo** (*Annals of Probability*), **Karen Kafadar** (*Annals of Applied Statistics*), **Richard Samworth** and **Ming Yuan** (*Annals of Statistics*), **Sonia Petrone** (*Statistical Science*) and **Bob Keener** (Managing Editor).

Thanks to all the Council candidates, to the outgoing members of the committees and Council, and to all of you who voted.

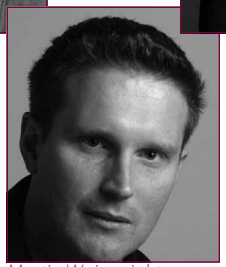
Tony Cai



Alice Guionnet

Fang Yao


Richard Davis


Martin Wainwright

IMS Bulletin

Volume 49 • Issue 5
August 2020
ISSN 1544-1881

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Executive Committee

IMS Members' News

Michael Jordan awarded IEEE's John von Neumann Medal

The 2020 IEEE John von Neumann Medal, given for outstanding achievements in computer-related science and technology, and sponsored by IBM Corporation, is presented to IMS Fellow Michael I. Jordan, "For contributions to machine learning and data science."

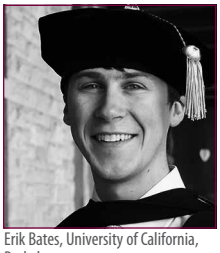
You can watch a short video about the award at https://ieeetv.ieee.org/ieeetv-specials/honors-2020-michael-i-jordan-wins-the-ieee-john-von-neumann-medal

IEEE, an association dedicated to advancing innovation and technological excellence for the benefit of humanity, is the world's largest technical professional society. It is designed to serve professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology that underlie modern civilization.

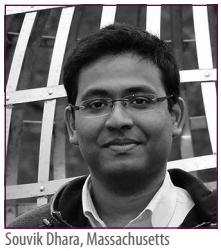
IMS New Researcher Travel Awards

The 2020 IMS New Researcher Awards fund travel, and possibly other expenses, to present a paper or a poster at an IMS sponsored or co-sponsored meeting for those who otherwise would not be able to attend the meeting. Fifteen IMS members who are New Researchers are receiving the award this year (though their travel plans are mostly disrupted!).


Seungchul Baek, University of Maryland Baltimore County


Erik Bates, University of California, Berkeley


Thomas Berrett, CREST, ENSAE, Institut Polytechnique de Paris


Souvik Dhara, Massachusetts Institute of Technology


Paromita Dubey, University of California, Davis


Chiara Franceschini, Universidade de Lisboa, Portugal


Jonathan Hermon, University of British Columbia


Hyunseung Kang, University of Wisconsin–Madison


Bikram Karmakar, University of Florida


Aya A. Mitani, Harvard T. H. Chan School of Public Health


Mohamed Ndaoud, University of Southern California

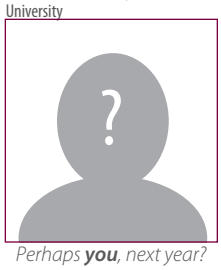

Jonathan Niles-Weed, New York University

Dan Komoda


Jiangyan Wang, Nanjing Audit University, China


Miaoyan Wang, University of Wisconsin–Madison


Tianying Wang, Columbia University

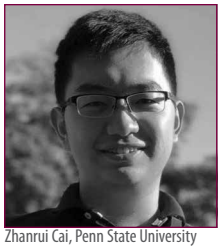


*Perhaps **you**, next year?*

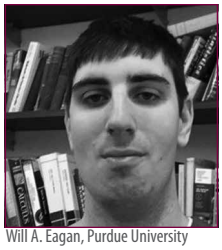
IMS Hannan Travel Awards

Meet the 24 graduate student members who have been selected to receive an IMS Hannan Travel Award this year, so they can attend an IMS sponsored or co-sponsored meeting.


Chitrak Banerjee, Michigan State University

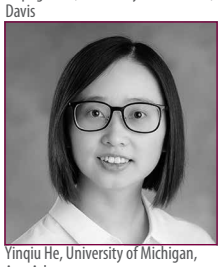

Zhanrui Cai, Penn State University


Yaqing Chen, University of California, Davis


Will A. Eagan, Purdue University


Len Garces, University of South Australia

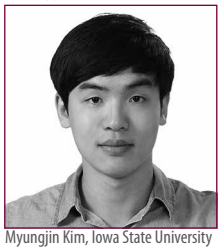

Aritra Halder, University of Connecticut


Yinqiu He, University of Michigan, Ann Arbor


Frankie Higgs, Lancaster University


Nianqiao (Phyllis) Ju, Harvard University


Kwangho Kim, Carnegie Mellon University


Myungjin Kim, Iowa State University

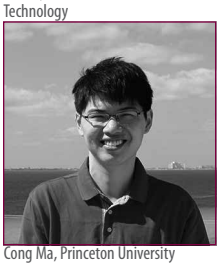

Bhumesh Kumar, University of Wisconsin–Madison


Gil Kur, Massachusetts Institute of Technology


Jie Li, Tsinghua University


George Liddle, Lancaster University

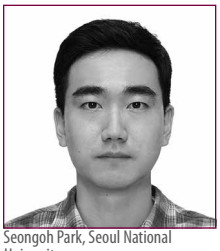

Yan Liu, University of Illinois at Urbana-Champaign

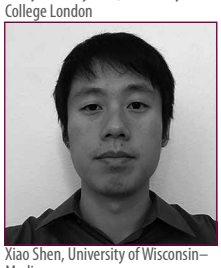

Cong Ma, Princeton University


Mariya Mamajiwala, University College London


Rui Mao, University of Toronto


James Matuk, The Ohio State University


Seongoh Park, Seoul National University


Xiao Shen, University of Wisconsin–Madison


Yueying Wang, Iowa State University


Xiao Wu, Harvard University

= access published papers online

IMS Journals and Publications

Annals of Statistics: Ming Yuan, Richard Samworth
https://imstat.org/aos
https://projecteuclid.org/euclid.aos

Annals of Applied Statistics: Karen Kafadar
https://imstat.org/aoas
https://projecteuclid.org/aoas

Annals of Probability: Amir Dembo
https://imstat.org/aop
https://projecteuclid.org/aop

Annals of Applied Probability: Francois Delarue, Peter Friz
https://imstat.org/aap
https://projecteuclid.org/aoap

Statistical Science: Sonia Petrone
https://imstat.org/sts
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IMS Collections
https://projecteuclid.org/imsc

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

IMS Co-sponsored Journals and Publications

Electronic Journal of Statistics: Domenico Marinucci
https://imstat.org/ejs
https://projecteuclid.org/ejs

Electronic Journal of Probability: Andreas Kyprianou
https://projecteuclid.org/euclid.ejp

Electronic Communications in Probability: Giambattista Giacomin
https://projecteuclid.org/euclid.ecp

Journal of Computational and Graphical Statistics: Tyler McCormick https://www.amstat.org/ASA/Publications/Journals.aspx
log into members' area at imstat.org

Statistics Surveys: David Banks
https://imstat.org/ss
https://projecteuclid.org/euclid.ssu

Probability Surveys: Ben Hambly
https://imstat.org/ps
https://www.i-journals.org/ps/

IMS-Supported Journals

ALEA: Latin American Journal of Probability and Statistics: Roberto Imbuzeiro Oliveira
http://alea.impa.br/english

Annales de l'Institut Henri Poincaré (B): Grégory Miermont, Christophe Sabot
https://imstat.org/aihp
https://projecteuclid.org/aihp

Bayesian Analysis: Michele Guindani
https://projecteuclid.org/euclid.ba

Bernoulli: Mark Podolskij, Markus Reiß
https://www.bernoulli-society.org/
https://projecteuclid.org/bj

Brazilian Journal of Probability and Statistics: Enrico Colosimo
https://imstat.org/bjps
https://projecteuclid.org/bjps

IMS-Affiliated Journals

Observational Studies: Dylan Small
https://obsstudies.org/

Probability and Mathematical Statistics: K. Bogdan, M. Musiela, J. Rosiński, W. Szczotka, & W.A. Woyczyński
http://www.math.uni.wroc.pl/~pms/

Stochastic Systems: Shane Henderson
https://pubsonline.informs.org/journal/stsy

COPSS statement on R.A. Fisher Award

The Committee of Presidents of Statistical Societies (COPSS) is retiring the R.A. Fisher Award and Lecture, effective immediately. Dr. Kathryn Roeder, the announced recipient of this award for 2020, will receive the **COPSS Distinguished Achievement Award and Lectureship**, to be presented during the COPSS Awards and Address Session at the Joint Statistical Meetings that will take place virtually on Wednesday, August 5, 2020.

We take this action to advance a more just, equitable, diverse, and inclusive statistical community. It represents an important first step in a more comprehensive commitment to future diversity and inclusion across the generations in the statistics profession. We acknowledge that not all statisticians will agree with this action. The path of equity and inclusion stimulates diverse perspectives on the substance, pace and content of an issue, and consensus can sometimes be impracticable. We emphasize our shared commitments to move forward to ensure a fair and equitable society and profession by starting with these steps:

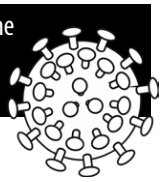
- Request the 2020 JSM Program Committee to **create a COPSS special invited session** with experts exploring Fisher's role, and the role of statistics more broadly, in eugenics from diverse perspectives and how these different lenses perceive this history in our 2020 society. The session would be archived for public viewing on the COPSS website.
- Convene a **diverse committee of experts and members of our societies to create guidelines for naming/renaming COPSS awards** and to suggest action-oriented strategies to increase and commit to diversity, equity and inclusion in our profession.
- Create a **public repository of discussion and teaching material** on diversity and inclusion as well as on the history of statistics with respect to eugenics. This repository will be available to teachers and researchers to raise awareness and to promote a more welcoming, respectful and stimulating environment for all our members.

The COPSS leadership acknowledges the differing passions and viewpoints on this matter and appreciates that everyone involved seeks positive outcomes for our respective societies and our profession. We recognize Fisher's fundamental contributions in establishing statistics as a scientific discipline. We heard the voices of those who argued for further deliberation before finalizing a decision. We have confidence that we will all work together to achieve our common goal of a fair, just, and equitable society and profession.

See http://copss.org/ for more info.

IMS members' work on COVID-19

Have you been working on COVID-19? Some more IMS members wrote to share what their research has focused on. If you'd like a mention in the next issue, please contact ims@imstat.org (send a paragraph about your work, and a link to the paper, or location where readers can find out more). **Our next deadline is August 1.**



Estate Khmaladze, FRSNZ, Professor of Mathematics and Statistics, Victoria University of Wellington, New Zealand

Estate and his co-author Dr Giorgi Kvizhinadze (Capital & Coast District Health Board, New Zealand) have been working on a geometric model for the COVID-19 epidemic. Estate says, "The work proposes a mathematical model of the process of the epidemic as it evolved in New Zealand. It uses a system of differential equations which emanate from natural assumptions on some probability measure and evolution of this measure on an evolving family of simplexes." The authors avoided mathematical complications; the aim, rather, was to come to justifiable estimations of important parameters, like the rate of infection as a function of time, thus quantifying the effectiveness of the Government measures. Also estimated were the probability distribution of incubation times and recovery times. Draft version: https://homepages.ecs.vuw.ac.nz/foswiki/pub/Users/Estate/WebHome/Covid-popul_2.pdf

Grace Y. Yi, Canada Research Chair in Data Science (Tier 1), and **Wenqing He**, Professor, University of Western Ontario, Canada

Grace and Wenqing co-lead a team to conduct research on COVID-19, and the manuscripts produced from the team members and their collaborators can be found at the COVID-19 Canada website: https://covid-19-canada.uwo.ca/. The website, developed by the team, provides a timely view and understanding of the evolving pandemic in Canada with a real time interactive web-based platform. The website highlights data visualization of the daily development of COVID-19 in Canada and forecasts future trends derived from different statistical predictive models. In addition, the website lists a variety of public data sources to give researchers and industry professionals quick access to COVID-19 data. Selected news updates on COVID-19 can also be found from this website.

https://covid-19-canada.uwo.ca/

Over 1,500 participants already registered and more than 600 pre-recorded talks uploaded!

Bernoulli–IMS World Symposium 2020

A virtual one-week symposium on probability and mathematical statistics, the Bernoulli–IMS One World Symposium will be held **August 24–28, 2020**. Most meetings and conferences needed to be postponed this summer; this symposium is meant to bring together our research community and will give as many researchers as possible the opportunity to present their recent research results. The meeting will be virtual, with many new experimental features. Participation at the symposium is **free**, and you'll need to register to get the passwords for the Zoom sessions. The symposium will consist of **plenary lectures from the four leading researchers profiled below**, and from the winners of the **Bernoulli Society New Researcher Awards** (Nina Holden, Xin Sun and Li-Cheng Tsai); the **IMS Lawrence D. Brown PhD Student Awards** (Yuqi Gu, Didong Li and Ashwin Pananjady); and the **Tweedie New Researcher Award** (Adel Javanmard). Around these live talks, there will be **over 600 prerecorded 10-minute talks with discussion sessions, 120 posters, experimental interactive events, and problem sessions**. Topics from probability and mathematical statistics are arranged in 23 sessions (with 23 Zoom rooms) to which all researchers are warmly invited to contribute and discuss their original research results. **https://www.worldsymposium2020.org/**

Plenary speaker profiles

Emmanuel Candès is the Barnum-Simons Chair in Mathematics and Statistics, and professor of Electrical Engineering (by courtesy) at Stanford University. Emmanuel's work lies at the interface of mathematics, statistics, information theory, signal processing and scientific computing: finding new ways of representing information and of extracting information from complex data. Emmanuel graduated from the Ecole Polytechnique in 1993 with a degree in science and engineering, and received his PhD in Statistics from Stanford in 1998. He has received the NSF Alan T. Waterman Award, Dannie Heineman Prize from Göttingen, SIAM's George Pólya Prize, and the 2015 AMS-SIAM George David Birkhoff Prize in Applied Mathematics. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences.

Kerrie Mengersen is a Distinguished Professor of Statistics at Queensland University of Technology, where she is the Director of the QUT Centre for Data Science and Deputy Director of the Australian Research Council Centre of Excellence in Mathematical and Statistical Frontiers. She earned BA and PhD degrees in Mathematics, majoring in Statistics and Computing, from the University of New England (in Australia), and has since worked in a commercial statistical consulting company and a number of Universities. Her research cuts across a broad spectrum of statistical practice, with a primary focus on Bayesian statistical modelling and computation, and applications in health, environmental science and industry. Her work is highly collaborative and most often led by her fantastic PhD students, postdoctoral students and research associates. Kerrie has served as the President of the Statistical Society of Australia and of ISBA; she is a Fellow of IMS, ISBA, the Australian Academy of Sciences and the Academy of Social Sciences in Australia, and in 2016, she was the first woman to be awarded the Statistical Society of Australia's Pitman Medal, which recognizes outstanding achievement in the statistics discipline.

Sir **Martin Hairer** KBE FRS is Professor of Mathematics at Imperial College London, where he is Chair in Probability and Stochastic Analysis. He previously held appointments at the University of Warwick, UK, and the Courant Institute of New York University. In 2014 he was awarded the Fields Medal; he has also given an IMS Medallion lecture, Bernoulli lecture, and Kai-Lai Chung lecture, among many others. Martin's research interests are stochastic PDEs, stochastic analysis, functional analysis, and homogenization theory. He was elected a Fellow of the UK's Royal Society: according to their website, he is "one of the world's foremost leaders in the field of stochastic partial differential equations in particular, and in stochastic analysis and stochastic dynamics in general." He was knighted last year.

Wendelin Werner is a German-born French mathematician working on random processes such as self-avoiding random walks, Brownian motion, Schramm–Loewner evolution, and related theories in probability theory and mathematical physics. In 2006, at the 25th International Congress of Mathematicians in Madrid, Spain, he received the Fields Medal, "for his contributions to the development of stochastic Loewner evolution, the geometry of two-dimensional Brownian motion, and conformal field theory." Wendelin is professor in the Department of Mathematics at ETH Zürich, since 2013; previously he worked at the University of Paris-Sud in Orsay, CNRS Paris, and University of Cambridge. He received his PhD at the University of Paris VI in 1993 under the supervision of Jean-François Le Gall. Among Wendelin's distinctions are the Rollo Davidson Prize (1998), the European Mathematical Society Prize (2000), the Fermat Prize (2001), the Jacques Herbrand Prize (2003), the Loève Prize (2005) and the Pólya Prize (2006). He is a member (or foreign member) of the Academies of Sciences in France, Germany and Brazil, and the UK's Royal Society, as well as an honorary fellow of Gonville and Caius College (Cambridge).

Takis Tackles: Mathematical Higher Education

Takis Konstantopoulos writes:

We live in extraordinary times. Even though there have been several warnings about the dangers of a pandemic, as, for example, Bill Gates' warning in 2016 [https://www.businessinsider.com/bill-gates-warned-trump-pandemic-danger-before-took-office-2020-5?r=US&IR=T], many world leaders did not take them into account. Moreover, some countries like the United States reduced their budgets related to health issues and, in particular, to epidemics. The crisis resulting from the COVID-19 pandemic "took us by surprise"; "We were not prepared"; "It's never happened before"—as we have repeatedly heard from politicians who failed to adequately respond.

But I wish to speak of another crisis that is brewing, and may, sooner or later, result in a pandemic of sorts as well. I am talking about the decline of higher education. I am interested, in particular, in mathematics and probability / mathematical statistics education and research (I tend not to put strict boundaries between the two). I have had the chance to work in many universities on both sides of the Atlantic. My observations span at least 30 years, excluding my years of study as an undergraduate student in Athens and as a graduate student at Berkeley. I have observed the decline of educational standards, year after year. I never believed that the day would come when a student could get a degree in statistics without knowing the difference between a random variable and a sample; or a degree in mathematics without knowing what uniform continuity is about; or a degree in computer science and be unable to write a few lines of code. Yet it's happening, and not just in "those bad" universities but in reputable ones. We're witnessing an unprecedented decline. I'm not referring to the presence of exceptionally poor students, but to the large fraction of them in that category. If, say, 50% of students graduate from a mathematics, or related, department, without being able to understand and use the basic tenets of logic, then this should raise an alarm.

"They're not going to become neurosurgeons," a colleague, who currently holds a top administrative position at a world-class university, once told me. "Just give them a grade and pass them." The students we were discussing had totally failed to complete their assigned projects, though they were merely based on a good understanding of simple stochastic processes models and concepts. This is the attitude of many a modern university: award degrees at all costs.

I would like to mention and briefly discuss six interrelated causes of the decline of education.

Changing the meaning of teaching and learning

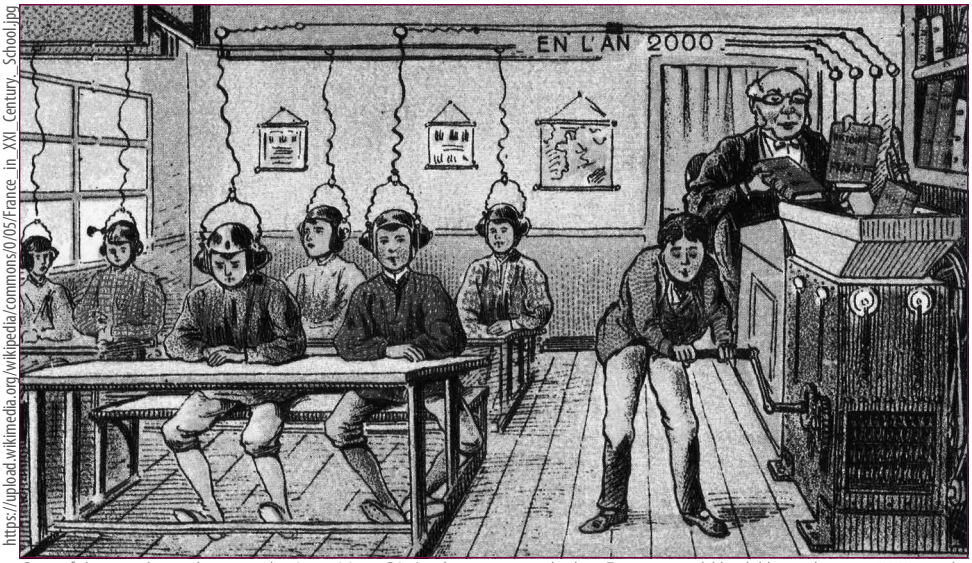
As I mentioned in a previous column, teaching and learning ought to be processes that require thinking and understanding. These processes have been substituted with merely teaching examples and essentially asking students to memorize rules. A case at hand for probabilists and statisticians is our "law of large numbers" which is considered as a law, rather than as a theorem that can, under some conditions, be proved to hold. Students, encouraged by professional teachers, are told that it is a law. This results into funny situations such as, when a class of students are asked to compute the probability that in 10,000 fair coin tosses we obtain 5,000 heads and 5,000 tails, 49% of them reply that the probability is one, 49% reply that it is one-half (a mere 2% get it right), but both groups reply that this is due to the law of large numbers! Obviously, they have no clue what the law of large numbers says, let alone understand a proof in a simple case. Teaching has become equivalent to vocational training. Learning has become synonymous with rote learning.

Treating students only as customers

I first heard the term "student as customer" in Austin, Texas in the '90s. I thought it was a really bold, and honest, attitude of the administrators who put forward this notion. But it was just the beginning. Of course, students are, in some sense, customers seeking to obtain knowledge. But they are not customers without responsibilities. In many universities in the UK, for instance, students have a say, and can veto, whether a course should be taught or not. For example, if students decide that Real Analysis should not be offered because it is of no practical use then students can veto such a course. There is an obvious problem here. How can a beginning student have the expertise to understand why such a topic might be useful? Even businesses do not work this way. First-time customers, for instance, typically do not have a direct say on what their "smart" phone will be equipped with, software-wise; it is the company that decides. In a university, this often results in curricula, partly designed by students, to satisfy students' beliefs about what their education should be like. One outcome: large numbers of students graduate having learned the rules and regulations of Itô calculus for Brownian motion, for the practical purpose of computing the price of a financial instrument, but without understanding what Brownian motion is.

Using exams as a (fake) certificate of acquired knowledge

I mentioned in my previous article that exams are a system of rewards that is weakly



https://upload.wikimedia.org/wikipedia/commons/0/05/France_in_XXI_Century_-_School.jpg

One of the prophetic drawings by Jean-Marc Côté, who envisioned what France would look like in the year 2000, and presented at the 1900 World Exhibition in Paris.

correlated with the knowledge obtained. In fact, I have now more reasons to believe so. For example, in a large number of reputable universities, the exams have become extremely standardized: An exam must have exactly the same number of points and the same number and (known) type of questions as the one of the previous n years (where n is, say, 10). So, for example, if during the previous years there has never been a question on the proof of the central limit theorem, then one is not allowed to ask this question in a current exam on mathematical statistics. Students are encouraged to study previous exams and their solutions, and are told that this will help them pass the current one. If a student receives a good grade in the exam, then both the students and the university agree that this means that the student has learned the subject. And yet, it may only mean (and it does in most cases) that the student has learned the mechanics of a problem, a mere recipe that they can blindly apply, and nothing more. That is, there is no conceptual learning that can be applied to other, possibly open-ended problems.

Using educational "analytics"—numbers that supposedly measure quality

There is a dictum beloved by bureaucrats: everything is quantifiable by a single number. A scientist's value is measured by his or her h-index (a rather bogus, arbitrarily defined quantity that is easily manipulated: see "Citation Statistics" by Robert Adler, John Ewing, and Peter Taylor, *Statist. Sci.* **24**(1), 2009, pp.1–14). A journal's importance is measured by its impact factor (a number that is often manipulated by asking the authors of a paper accepted in a journal to cite at least two papers previously published in the same journal). An instructor's value is measured by the student satisfaction score. The latter number is based entirely on whether students felt happy. Happiness is, of course, subjective and hugely correlated with whether the student feels comfortable that they will pass the exam and whether they feel they "learned" the material without any effort at all. And so, what happens, especially among younger faculty members who wish to be promoted, is that they try to please the students by ensuring them that they can "learn" everything effortlessly. On the other hand, someone who teaches them how to think conceptually will almost never obtain a good score. Student satisfaction surveys are very flawed. I remember in one UK university the following question was asked: "How do you rate your instructor's helpfulness, even if you never sought help?" Long after the fact, students often themselves realize that the courses from which they learned most are the courses that taught them honest mathematical thinking, and regret that they didn't give the instructor a good score. Such professors often struggle to remediate students' lack of preparedness before covering new material. To capture this, many universities experimented with exit interviews and evaluations. Alas, these were often quickly abandoned, as they were inconsistent undergraduate surveys. In the words of a colleague from a world-class university (whose identity I cannot reveal), "We [of the older generation] know what a real university is and can be, where teachers are not afraid of students and don't try to make them happy at any cost; we are gone—this knowledge, and the very idea, are gone."

Trivializing the design of courses

How do we design a course in, say, complex analysis? Well, the standard method is that we first make sure we understand the subject. Then we discuss with other colleagues, those who also understand the subject. Finally, we design a syllabus, identify the prerequisites, and see how it fits into the curriculum. But there is another method: Suppose we eliminate entirely any discussion about content and, rather, pass the course proposal via a committee of people who may not understand the subject. We make sure, however, that we have detailed what computer software and what online

Continues on **page 8**

Takis on Mathematical Higher Education

Continued from **page 7**

teaching platforms we will use, how many hours per week the students must study, what percentage of them will be expected to pass the exam, and design the exam before the course starts. The committee may send it to a subcommittee or working group for further discussions. The subcommittee reports to the committee that sends it to a higher-level committee that checks quality as measured by numbers. Alas, it is this second method that has been adopted by many universities.

Stressing revenue and Executive Compensation

Of course, universities have to generate revenue. If income is based mostly on keeping its customers happy, then, by increasing happiness, universities manage to increase their education prices. This can result in a 150% increase in education costs [https://www.businessinsider.com/scott-galloway-coronavirus-pandemic-reshaping-higher-education-universities-may-close-2020-4?r=US&IR=T] in the US since 1998, versus 54% inflation in the same period (and commensurate rapid growth in compensation for senior university administrators). Revenue is generated either year after year, by the student paying tuition and fees (possibly, as in the US, through education loans that increase 8 times faster than wages [https://www.forbes.com/sites/camilomaldonado/2018/07/24/price-of-college-increasing-almost-8-times-faster-than-wages/#25cac03b66c1]) or by the government providing money to the university for each student successfully graduating (as is, for example, the case in Swedish universities). The latter is actually worse, because universities have an incentive to increase throughput as fast as possible. (Why fail a student if that will result in delayed income?) Clearly, all that has a direct consequence on standards of education.

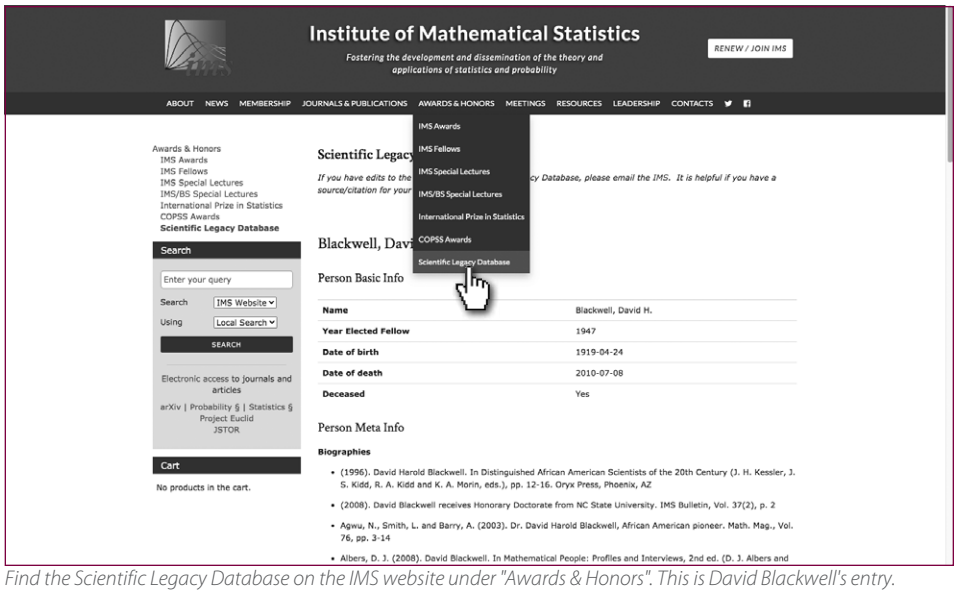
The products of a university are education and research. These are things that ought to be intimately connected. Alas, university administrators have, by establishing a regime of trivial education standards, directly or indirectly separated the two. Many universities rely on foreign students for generation of income. A student from country A will pay to study in country B if, theoretically, the education obtained in B is better than in A. In practice, however, the real quality of education has little to do with the student's decision. Rather, it is the desire to obtain a degree from a "reputable" university that influences the student's professional success. If the reputation, however, does not reflect the actual outcome (has the student actually learned mathematics or has he/she passed the exams with, possibly, high grades?) then, sooner or later, there will be a crisis.

Epidemics, when they occur, spread like a fire, unless they are contained early on. But to contain them, one has to acknowledge their existence and study the structure and dynamics of the virus. We've seen the consequences of doing so with COVID-19. The brewing epidemic of declining educational standards in mathematics and related areas is being largely ignored and unchallenged.

Scientific Legacy Project

Hans R. Künsch, former chair of the Memorials Committee, writes:

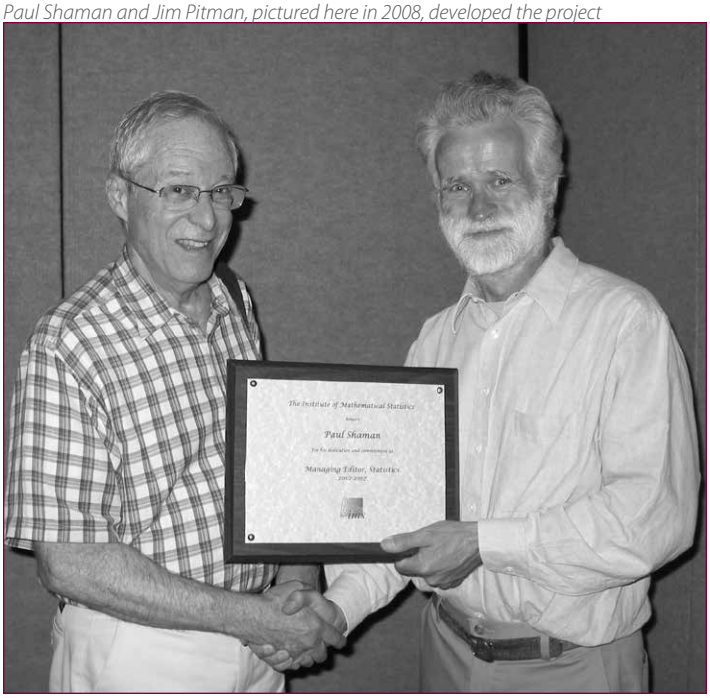
The IMS has a history of over 80 years, and during this time our members have made many contributions to the "development and dissemination of the theory and applications of statistics and probability." In order to highlight our rich history and to make the accomplishments and contributions of IMS members visible to the whole scientific community, the IMS Scientific Legacy Project was created through an initiative by former IMS President Jim Pitman. In 2011, during Peter Hall's term as IMS President, Paul Shaman was appointed Scientific Legacy Editor. Ruth Williams served as IMS President in the following year and has further encouraged and assisted with this project to the present. Paul has collected and checked information from many sources about all IMS Fellows, and we are pleased to announce that a beta version of webpages displaying this material is now available at https://imstat.org/scientific-legacy-database/



Find the Scientific Legacy Database on the IMS website under "Awards & Honors". This is David Blackwell's entry.

Paul deserves our greatest thanks for all the work he has put into this project. In addition, Jim played a critical role in the development, helping design the format, writing programs to display content in the early stages, and providing valuable advice.

Paul Shaman and Jim Pitman, pictured here in 2008, developed the project



The list of IMS Fellows currently numbers 1,214, of whom 402 are known to be deceased. For each Fellow, a webpage lists the year elected with, since 1999, the text of the citation for election, honors (limited to key IMS, Bernoulli Society, and COPSS awards, national and international awards, and a few selected other honors), and listings and links for biographical pieces, Wikipedia pages, and *Festschriften*. For the deceased Fellows, dates of birth and death are given, and additional listings, including memoirs, autobiographies, collected works, oral histories, archive collections, bibliographies, portraits, obituaries, and in memoriam articles, are also provided.

Paul collects information about deaths of Fellows regularly from a number of sources, e.g., *IMS Bulletin, Amstat News* and the ISI webpage. Nevertheless, we appreciate if you let Paul and the *Bulletin* Editor, Tati Howell, know if you hear about a recent death of an IMS Fellow, or are aware of a past death that is not noted in the database.

The work on completing information contained in this database is an ongoing process, and much remains to be done. **Members are encouraged to submit corrections and make suggestions for additional information to be included** to the Scientific Legacy Editor at ims@imstat.org. Please be aware that the goal is to make the available information on individual Fellows comparable. For this reason, additions like current affiliations or links to a personal webpage would require considerable time and effort as this information would have to be collected and checked for many Fellows, and frequently updated.

A current list of selected national and international honors for the Fellows is available at https://imstat.org/2019/07/19/our-fellows-achievements/

Recent papers: two IMS-supported journals

Bayesian Analysis

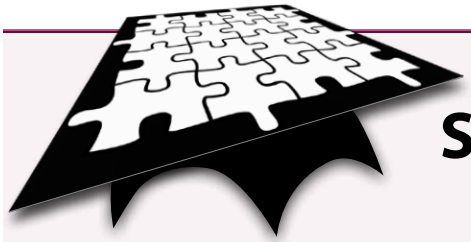
Bayesian Analysis is an electronic journal of the International Society for Bayesian Analysis. It seeks to publish a wide range of articles that demonstrate or discuss Bayesian methods in some theoretical or applied context. The journal welcomes submissions involving presentation of new computational and statistical methods; critical reviews and discussions of existing approaches; historical perspectives; description of important scientific or policy application areas; case studies; and methods for experimental design, data collection, data sharing, or data mining. The Editor-in-Chief is Michele Guindani. Access papers at **http://projecteuclid.org/euclid.ba**

Volume 15, No 2, June 2020

Brazilian Journal of Probability and Statistics

The *Brazilian Journal of Probability and Statistics* is an official publication of the Brazilian Statistical Association and is supported by the IMS. The Journal publishes papers in applied probability, applied statistics, computational statistics, mathematical statistics, probability theory and stochastic processes. The Editor is Enrico Colosimo. Access papers at **http://projecteuclid.org/euclid.bjps**

Volume 34, No 2, May 2020



Student Puzzle Corner 30

We pose a simple problem with an element of prettiness this time. Anyone can understand the problem, as simple as it is. Suppose we simulate the values of an integer-valued random variable on a computer. We know from our empirical experience that after some time, it becomes really hard to see a new value, a number that we have not already seen in our simulation. Similarly, if we simulate an integer-valued variable that is almost a point mass, it takes a long time before we see two or more distinct values in our simulation. We want to understand these empirical experiences.

So, here is our exact problem for this month:

(a) Suppose $X_1, X_2, \ldots$ are i.i.d. random variables with the PMF $P(X_1 = j) = f(j)$, j=0, 1, 2, … . Let $p_n = P(X_n$ is a new value distinct from each of $X_1, \ldots, X_{n-1})$. Prove or disprove: For any mass function $f(.)$, $p_n \to 0$ as $n \to \infty$.

(b) Suppose again that $X_1, X_2, \ldots$ are i.i.d. random variables with the PMF $P(X_1 = j) = f(j)$, j=0, 1, 2, … . Given $k \geq 1$, let $\tau_k = \inf\{n : |\{X_1, X_2, \ldots, X_n\}| = k\}$; that is, τ_k is the first time that the number of distinct values in our simulation reaches the number k. Derive a formula for $E(\tau_2)$ and $E(\tau_3)$.

(c) Now suppose the underlying sequence is an i.i.d. Poisson sequence, that is, for some $\lambda > 0$, $f(j) = \frac{e^{-\lambda}\lambda^j}{j!}$, $j = 0, 1, 2, \ldots$. Find $E(\tau_2)$.

(d) For part (c), find the limit of $P(\tau_2 = 2)$ **(i)** as $\lambda \to 0$, and **(ii)** as $\lambda \to \infty$.

(e) Prove that $P(\tau_2 = 2)$ is strictly monotone in λ.

Deadline: September 15, 2020

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 29

Contributing Editor Anirban DasGupta provides the solution to the previous problem, which was about epidemiology. He writes:

By the method of indicator variables,

$$E(Y|X=x) = m\frac{\binom{k(m-1)}{x}}{\binom{km}{x}}.$$

One may use the moment estimate $E(Y|X=x)$ as a statistical estimate for Y. The conditional PMF of Y is

$$P(Y=y|X=x) = \frac{\binom{m}{y}}{\binom{km}{x}} \times \left[\binom{ky}{x} - \binom{y}{1}\binom{k(y-1)}{x} + \binom{y}{2}\binom{k(y-2)}{x} - \cdots\right].$$

The binomial series terminates when $k(y-i)$ becomes less than x. One way to see this is to just use the standard De Moivre formula for the probability that exactly r of n events occur.

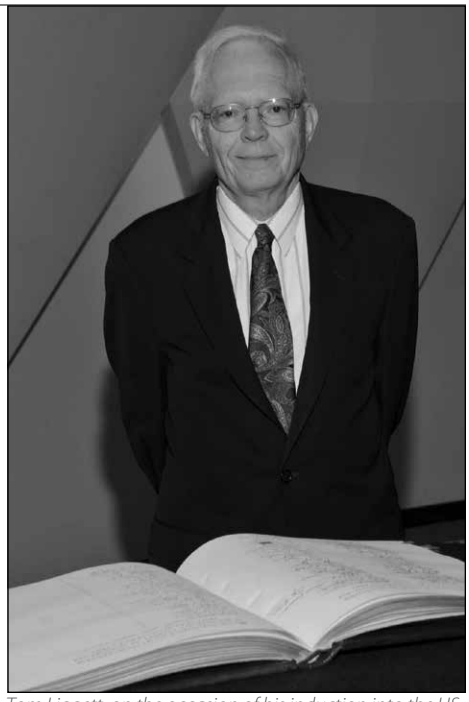
Bonus Puzzle!

The Lonely Runner Conjecture

An entertaining problem with many applications has n runners running indefinitely around a circular track of length 1. They have distinct, constant speeds $v_1, v_2, \ldots, v_n$. They start at time t = 0 from the same point. At a given time t, runner i is called a *lonely runner* if their nearest neighbor is $\geq \frac{1}{n}$ distance away from i. The conjecture, as yet unproved in its full generality, is that every runner i is a lonely runner at some time t, depending on i and n. Of numerous things you can explore, here is one. Take speeds $v_k = X_1 + X_2 + \ldots + X_k + k$, where X_i are i.i.d. Poisson with mean 1. What does simulation suggest about the first time a lonely runner is spotted, and which runner is that?

Obituary: Thomas M. Liggett

1944–2020



Tom Liggett, on the occasion of his induction into the US National Academy of Sciences, in 2009 (he was elected in 2008)

Tom Liggett passed away May 12, 2020 in Los Angeles at the age of 76. According to Wikipedia, Tom Liggett moved at the age of two with his missionary parents to Latin America, where he was educated in Buenos Aires (Argentina) and San Juan (Puerto Rico). He graduated from Oberlin College in 1965, where he was influenced towards probability by Samuel Goldberg, an ex-student of William Feller. He went to graduate school at Stanford, taking classes with Kai Lai Chung, and writing a PhD thesis in 1969 with advisor Samuel Karlin. (Karlin had 44 students, including my adviser Don Iglehart, which means I should call him Uncle Tom.) He joined the faculty at the University of California, Los Angeles, in 1969, where he spent his career, retiring in 2011 but remaining active in the department until shortly before his death.

Tom's first really impressive result was a 1971 paper with Mike Crandall on nonlinear semigroups. At about the time this paper was written, Chuck Stone showed Tom a copy of Frank Spitzer's 1970 paper on Interacting Particle Systems, saying, "I think you'll find something interesting in this." The rest, as they say, is history. In 1972, Tom wrote a paper proving the existence of interacting particle systems using the Hille–Yoshida theorem for linear semigroups. His *St. Flour Lecture Notes* published in 1977 helped spread the word about the field to a broad audience of probabilists.

Tom's 1985 book, which has been cited more than 5000 times, helped grow interacting particle systems into a lively and vibrant area. By the time he wrote his 1999 book, the field had grown so large that he concentrated on only three examples: the contact process, the voter model, and the simple exclusion process. His books and papers are known for their clear and elegant proofs, though for those of us who are not as smart as he was, they can take some effort to digest.

A fuller account of Tom's research can be found in the July 2008 article in the *IMS Bulletin* on his induction into the National Academy of Science.

Tom was an Associate Editor of the *Annals of Probability* from 1979–84, and became its editor 1985–87. He lectured at the International Congress in Math in 1986, gave the Wald Lectures in 1996, and was a Guggenheim fellow from 1997–98. At UCLA, he was administrative vice chair 1978–81, chair 1991–94, and undergraduate vice-chair 2004–06. I departed from UCLA in 1985, but I remember Tom telling me once that you know you are doing a good job as chair if *everyone* is mad at you.

Tom had only nine PhD students: Norman Matloff (1975), Diane Schwartz (1975), Enrique Andjel (1980), Dayue Chen (1989), Xijian Liu (1991), Shirin Handjani (1993), Amber Puha (1998), Paul Jung (2003), and Alexander van den Berg-Rodes (2011). Despite the small number of academic children, his family tree goes deep in Brazil. As they say in the Bible, Andjel begat Pablo Ferrari, who begat Fabio Machado who combined for a total of 34 descendants. The psychology of how students choose their advisers is mysterious, but as Amber Puha writes in the report on Tom's 75th birthday party last year (June/July 2019 issue of the *IMS Bulletin*), she found him to be an ideal adviser.

Over Tom's career, he mentored numerous postdoctoral fellows and young researchers. A glance at his publications since 2000 (https://www.math.ucla.edu/~tml/post2000pubs.html) shows he had too many collaborators for me to list here. While I was at UCLA, we talked a lot about math but we did not do much joint work since we had very different styles. It takes me months to years to pursue an idea to solve a problem, but Tom seemed to go from idea to solution to completed paper in a few days. One paper on which I could work at his speed was "On the shape of the limit set in Richardson's model". I was on my way to the Friday afternoon probability seminar at USC when Tom popped out of his office and said, "It has a flat edge."

Two of our other joint papers come from his solving a problem that I was working on with someone else, which I believe is a common occurrence on his publication list. We no longer have access to his agile mind, but you can still see it at work in 106 papers and his two books on interacting particle systems.

Tom will be missed by his wife Christina, his children Tim and Amy, his colleagues at UCLA and students and researchers throughout the world.

Rick Durrett, Duke University

Obituary: Clifford H. Spiegelman

1949–2020


Texas A&M University

Cliff Spiegelman

Clifford H. Spiegelman, Regents Professor and distinguished professor of statistics at Texas A&M University and a leader in statistical and environmental forensics, passed away May 14 in College Station at the age of 71.

For over 40 years, Cliff Spiegelman applied his statistical expertise to chemistry, forensic science, medicine and related problems across multiple disciplines, to help free innocent people, re-evaluate history and develop sharper analytical tools for society. In perhaps the most visible and pioneering example, his expertise was key as a member of an NRC committee tasked with evaluating the effectiveness of comparative bullet lead analysis, a forensic method most notably used in the investigation of the 1963 assassination of President John F. Kennedy. He was instrumental in the FBI's 2005 decision to stop using the widespread technique, after he demonstrated it to be fundamentally flawed, and also part of a related study that determined the same for evidence used to rule out a second shooter in the Kennedy assassination—earning him the 2008 ASA Statistics in Chemistry Award.

A native of Long Island, Cliff earned a BA in economics, math and statistics at The State University of New York at Buffalo in 1970, and both his MS (managerial economics, 1973) and PhD (statistics and applied math, '76) at Northwestern University. Prior to Texas A&M in 1987, he worked in the Statistical Engineering Division at the National Bureau of Standards (now known as NIST) in Gaithersburg, 1978–87, following a year at Florida State University. He also held visiting faculty appointments at Northwestern, Johns Hopkins and Lamar universities. Spiegelman was appointed in 2009 as a distinguished professor of statistics, Texas A&M's highest honorific rank for faculty. He was designated a Regents Professor in recognition of his exemplary contributions to Texas A&M and the people of Texas. A senior research scientist with the Texas A&M Transportation Institute, he had also served since 2017 as the inaugural Official Statistician of the Texas Holocaust and Genocide Commission, as well as statistical advisor to the Texas Forensic Science Commission. For many years he also was the key statistical advisor to the City of Houston's crime lab.

Cliff was a founder of the field of chemometrics. In 2017, the international journal he co-founded, *Chemometrics and Intelligent Laboratory Systems*, celebrated his 30-plus years of service to both the publication and the discipline he helped create with a virtual special issue in his honor. An active researcher and scholar, Cliff authored more than 200 refereed publications, and contributed to five books and dozens of conference proceedings, reviews and editorials.

During the past two decades, Cliff was quoted in many contexts by national media, most notably on his research showing the statistical limitations of some of the forensic techniques commonly presented as evidence in the justice system, including bullet fragment analysis. He routinely testified in criminal matters related to various aspects of statistics, flawed forensic science, probability and the law—often in association with the Innocence Project, the national nonprofit legal clinic dedicated to exonerating wrongfully convicted people through DNA testing and other post-verdict methods. He was among a distinguished group of statisticians, legal scholars and scientists from other fields who regularly collaborated with the Innocence Project on amicus briefs to help educate the courts on the limitations of forensic techniques. For many years, he worked with judges and attorneys to broaden their understanding of statistics and the critical effect it often has on case outcomes and broader issues. Recently he had been working with colleagues and US legislators to introduce bipartisan legislation that would enter existing forensic evidence collected at crime scenes during the civil rights era into forensic databases. He strongly believed this would help pave the way for countless decades-long cold cases potentially to be solved.

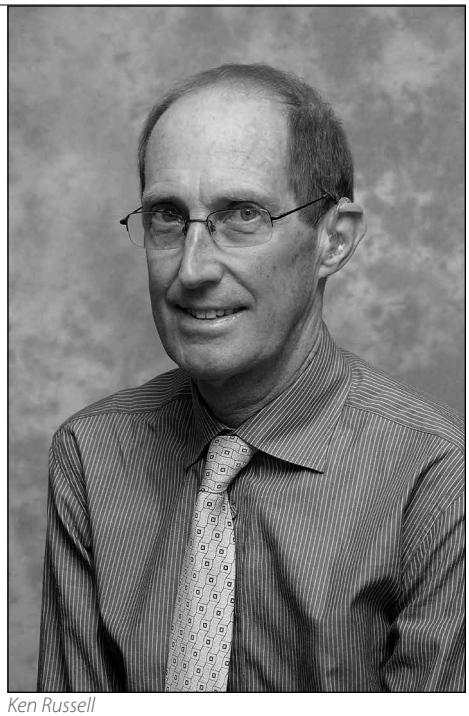
Spiegelman was a fellow of IMS, ASA and AAAS, and an elected member of the ISI. He received the ASA's 2007 Jerome Sacks Award recognizing innovation in statistical science and the ASA's San Antonio Chapter 2016 Don Owen Award for excellence in research, contributions to editorial activities and service to the statistical community. Most recently, he was honored with Sigma Xi's 2019 Outstanding Science Communicator Award.

Cliff Spiegelman is survived by his wife Kathy and their two daughters, Lindsey and Abigail, and his daughter Rachel from a previous marriage.

This obituary is condensed with permission from the one on the Texas A&M University Science Faculty website. There is also a tribute to Cliff on the Innocence Project website.

Obituary: Kenneth G. Russell

1950–2019



Ken Russell

Ken Russell's death, on 16 July 2019, ended a passionate involvement with the discipline of Statistics that lasted almost 50 years. It is not unusual for people to have a passion for (some of) what they do. But very few would wear the mantle of Passionate Statistician as well as Ken did.

Two famous statisticians who did so were Florence Nightingale and William Sealy Gosset. It will not surprise anyone who knew Ken to learn that, during a sabbatical stay at the University of Southampton, where he collaborated with Sue Lewis, he made pilgrimages to sites commemorating these two passionate statisticians. When he visited the Guinness Brewery in Dublin, Ken's focus was not the usual one of recreational use of "enhanced" Liffey water. Rather, he explored the brewery's statistical memorabilia and bought himself a tie, of which one of us (DG) is now the proud owner. On the occasion of the 100th anniversary of Gosset's famous 1908 publication in *Biometrika* on "The probable error of a mean", Ken organised a well-attended—and even better remembered—"Student's tea party". He also greatly admired the "Lady With the Lamp": statistician, social reformer, hospital manager, pioneer in quality control and founder of modern nursing. We can only guess at what special function Ken would have organised to celebrate this year's 200th anniversary of the birth of Florence Nightingale, but we can be sure that it would have been a good one.

The oldest of five brothers, Ken was born in Adelaide and grew up in Sydney's northern beaches, a relatively unpopulated area at the time. Ken was in the foundation cohort of his high school. This may have contributed to his development of skills in organising the social activities of his peer groups, such as the local tennis club and church youth fellowship. Ken loved his tennis, and was a good player, but increasing health issues ensured that he would not be a great one. He did, however, have a role in organising Australia's Junior Davis Cup squad. His health problems were shared with the oldest two of his siblings, one of whom died in his teens, the other in his early thirties. The other two brothers were unaffected, and both survive Ken.

After completing a Bachelors' degree at the young Macquarie University, Ken committed to Statistics when he enrolled in a Master of Statistics degree at the University of New South Wales. A doctorate followed under the supervision of John Eccleston, who became a life-long friend and career-long occasional collaborator. Ken became a tutor and then a lecturer at the University of New South Wales. While there, he took on his first significant role in organising statisticians, as secretary of the New South Wales branch of the Statistical Society of Australia.

A desire to experience the wider world and the fact that New Zealand academic salaries were, at that time, higher than in Australia, led Ken to move to Wellington, where he took up a lectureship at Victoria University. He formed many friendships there, but came back to Australia in 1985 to take up a position at the University of Wollongong, where he spent most of the rest of his life. Ken brought back with him to Wollongong an additional "family member," a kidney uncharacteristically named "Ocker", who kept him alive for 40 years.

He thrived at Wollongong, but left briefly to join the "coalface" of statistical design and analysis in the Victoria Department of Agriculture. We were delighted to lure Ken back to Wollongong in 1989 to take up a newly created role as Director of the Statistical Consulting Service. Ken organised not only the smooth operation of the service, but also many other things, most notably an outstanding teaching career (recognised within and beyond the University of Wollongong by several teaching awards, and by the many students who said that he was the best lecturer they ever had). One of us (MPW) was taught by Ken as an undergraduate student at the University of Wollongong, and fondly remembers Ken's neat handwriting as well as his—much more important—care and diligence as a teacher.

Ken also developed an expanding network of research collaboration. His contribution to their academic growth and personal development was widely appreciated by junior colleagues in the School of Mathematics and Applied Statistics, as it became, and by researchers, graduate students and honours candidates in many disciplines across the wider University and beyond. He also consulted occasionally for industry, one notable example being the development of new work rosters for the company that runs the tugboat service at Port Botany, in Sydney.

Continues on **page 15**

Continued from **page 14**

Given his avowed stance of not imposing his health problems on any partner, Ken surprised his many friends and colleagues when he announced his intended marriage to Janet, his partner in a very happy and fulfilling marriage for the last ten years of his life. Their marriage followed the death of Janet's first husband, who, like Ken, had had a kidney transplant in Wellington. Through this association, all three had become good friends. Janet joined Ocker as the second Kiwi member of Ken's enlarged family. The confirmed bachelor's life changed markedly. He even came to enjoy non work-related travel. But he also took on a professional challenge, a chair at Charles Sturt University in WaggaWagga, New South Wales. Of course, he had a strong impact there as well.

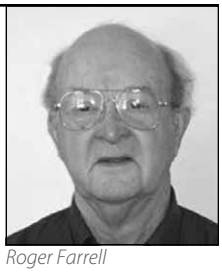
When he retired, Ken and Janet returned to Wollongong. During his remaining years, Ken retained his Charles Sturt University association, but also took an honorary position at Wollongong. Someone with his skill and enjoyment of teaching could not resist doing more. He also co-developed a subject for teaching at the University of Newcastle, Australia. All of these tasks were taken on with enthusiasm and success, but his statistical passion in retirement focused most on writing a book, *Design of Experiments for Generalised Linear Models*, published by Chapman and Hall.

Ken is remembered for his humanity, friendship, loyalty and kindness, and for being conscientious in everything he did. These traits, and his career as a statistician, live on through the shared memories of family, friends, colleagues and students. And the career lives on through the many successful careers of those he influenced and his published works, most notably his book published in December 2018, just months before his death.

David Griffiths, University of Wollongong, and Matt P. Wand, University of Technology Sydney

Obituary: Roger H. Farrell

1929–2017



Roger Farrell

Editor's note: IMS Fellow Roger Farrell died in September 2017, but it's recently come to light that we did not publish an obituary. The following appeared in the Cornell Chronicle *in October 2017, and is reproduced with permission.*

Roger H. Farrell, professor emeritus of mathematics, died September 28, 2017, at Hospicare in Ithaca. He was 88.

Farrell, who joined the Department of Mathematics at Cornell as an instructor in 1959, spent his entire career at Cornell.

An expert in mathematical statistics, Farrell worked in the application of decision theory methods to statistical problems. This work on decision theory methods involved development of inequalities, compactification of spaces and the study of the way sequences of measures converge.

Farrell wrote two textbooks: *Multivariate Calculation: Use of the Continuous Groups* in the Springer Series in Statistics, and *Techniques of Multivariate Calculation* in the Springer Lecture Notes in Mathematics series. Four of his 34 research papers were co-written with Larry Brown.

Several of Farrell's former students especially noted his gentleness and patience as a teacher and doctoral adviser.

Born July 23, 1929, Farrell was raised in Greensboro, North Carolina. At age 14, he entered the University of Chicago. He earned a PhB (the equivalent of a bachelor's degree in liberal arts) in 1947 and a master's degree in mathematics in 1951. After graduating, he entered the US military and served during the Korean War as an analyst who assessed the areas in which incoming personnel would be best suited to serve.

After his military service, Farrell earned a doctorate in mathematics on the GI Bill from the University of Illinois, Urbana-Champaign, in 1959. His doctoral adviser was Donald Burkholder, known for his contributions to probability theory. Farrell wrote his dissertation on "Sequentially Determined Bounded Length Confidence Intervals." At Cornell, he taught analytic geometry and calculus in his first year. He was promoted to assistant professor in 1961, associate professor in 1963 and full professor in 1967. He served as associate chair 1975-77 and became professor emeritus in 1999. He was a fellow of the Institute of Mathematical Statistics.

An avid photographer and bird-watcher, Farrell was a founding member and longtime treasurer for the Cayuga Bird Club. He was also a longtime supporter of the Cornell Lab of Ornithology. He is survived by his wife, LeMoyne Farrell.

Susan Kelley, Cornell University

Radu's Rides: The Road Less Traveled

Contributing Editor Radu V. Craiu has been reflecting on the many ways in which we can all contribute—and it doesn't mean a binary choice between research *or* service:

The life of an academic is simultaneously short and long. Its shortness is rooted in the belief, certainly popular among the disciplines served by the *Bulletin,* that a researcher's best work is done before they turn grey at the temples. The most prestigious prizes in Mathematics (Fields Medal) and in Statistics (COPSS Presidents' Award) visibly embrace this belief as they are given to people under the age of 40. These awards and their winners did, and will continue to, nurture the collective imagination about the transformational power of genius in mathematics and statistics and make our students aspire to greatness.

Whether the research fire dims at 40 or later, there is little doubt that, for many, it does burn slower well before retirement, so that a career in academia can feel very long if one is not prepared to consider other ways to serve the community. There's a tired and rigid dichotomy among many academics between research and service. Popular wisdom places the purity of a research career in direct opposition to the political machinations of an ever-growing academic or professional bureaucracy.

Full disclosure: I confess that I too was once an ardent refuser of any administrative job… yet I find myself now wearing the Department Chair hat—pendulums don't swing much wider than that. Time, and gradual accumulation of experience with various types of service, made me realize that the stark and stereotypical split I just mentioned is false. Moreover, I contend that the term dichotomy should be replaced with *polychotomy,* since there are multiple ways we can contribute our accumulated knowledge and interests to the field. I also believe that Statistics and its more recent ramifications could benefit greatly from more of us branching out. Let me present a few roads that deserve a second look.

Use your experience to nurture talent

Academics are doing this all the time, through teaching and student supervision, be it graduate or undergraduate. Less obvious, maybe, is that one's accumulation of experience, with its strings of both successes and flops, can be used to mentor young colleagues. The range of possibilities is truly very rich, from helping a young colleague secure funding for their research, giving advice on research-related pitfalls and career hurdles, to forwarding their names to conference organizers and nominating them for awards. Call it pay-it-forward if you wish, since that's what the person or people who have helped you probably did. The *sine qua non* condition for this to work out well is to put your mentee's interests above yours.

Work with scientists and advance their science

John Tukey really was right. We can do so much to help others with what we *already* know. My university has recently embarked on an ambitious program that promotes Data Science across disciplines. We are not the first nor the last to do it, but the same pattern observed elsewhere has emerged: the need for statistics expertise surpasses any expectations. Those involved in inter-disciplinary research know how hard it is to do it well. This is not an alternative to research *per se,* but it is a welcome deviation from the romantic ideal of scientists alone in their office banging their heads against the walls. Should be more fun, too.

Teach better

Be that teacher who trains the crossing guard at a small customs point in Vermont who tells this passing professor how much he loved to learn Stats. And do it over and over again, as the field evolves and computing becomes an integral part of the equation, sacrificing neither rigour nor the ability to make your students' imagination soar. Exploding Data Science class sizes or the isolation produced by the virus *du jour* lead to non-traditional challenges that require new remedies. For instance, recognizing the alienation produced by this Summer's perfect storm, some of my colleagues have created an Independent Summer Statistics Community as a "platform on which to share, discuss and support each other" (if you want to learn more about this, visit https://www.statistics.utoronto.ca/news/independent-summer-statistics-community-beyond-coursework). The experiment's success is demonstrated by an overwhelmingly positive reaction from more than 600 students who signed up right away.

Serve

Please, have a look around and see if everything is well in the world. Spoiler alert: it really is not. There is so much to do and

Continues on **page 17**

Continued from **page 16**

never enough time, so the most one can hope for is to pick up something that's broken and make it better. What I describe is not that different from research, but it is a path where one will likely influence many more people. Some of you may have experienced the benefits of great leadership in the past months, and I suspect some of you did not. You may have noticed significant differences between leaders who understand the trials and tribulations of conducting high-level research and/or the required effort that is hidden behind teaching a good class. When offered a chance to serve, even a little, consider the differences you have witnessed in your career and choose to be part of one too.

My invitation is certainly applicable to many scientific disciplines, but none are made more vulnerable by leadership sparsity than those situated at historical crossroads, such as the one we're living in. Rapid growth can come at the price of fragmentation, hype at the price of befuddlement and complacency.

Recently the American Statistical Association has advertised a new professional development project called "Preparing Statisticians and Data Scientists for Leadership: Influencing People and Projects". The first line in the advertising blurb states that, "the need for leadership from statisticians and data scientists is greater than ever." I could not agree more.

NOMINATIONS SOUGHT FOR NORWOOD AWARD

The University of Alabama at Birmingham (UAB) School of Public Health and Department of Biostatistics request nominations for the Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences. Eligible individuals are women who:

- have completed their terminal degree
- have made extraordinary contributions and have an outstanding record of service to the statistical sciences, with emphasis on both their own scholarship and teaching and leadership of the field in general and women in particular
- are willing to deliver a lecture at the award ceremony on October 20

How to Nominate

Send a full curriculum vitae accompanied by a letter of not more than two pages, describing the nature of the candidate's contributions. Contributions may be in the area of development and evaluation of statistical methods, teaching of statistics, application of statistics, or any other activity that can arguably be said to have advanced the field of statistical science. Self-nominations are acceptable, and electronic submissions of nominations are encouraged.

Send nominations to **norwoodawd@uab.edu** by **August 17**. The winner will be announced by August 31.

https://www.uab.edu/soph/home/news-events/awards/other/janet-l-norwood-award

New Session Exchange Agreement with the Royal Statistical Society

Beginning in 2022, the IMS will allocate an IMS session at our Annual Meeting to be a joint IMS/RSS session in exchange for a joint RSS/IMS session at the RSS Annual Conference.

The IMS Annual Meeting in 2022 will be in London, UK, June 27–30 2022. The Program and Local Chair is Qiwei Yao. Details forthcoming.

Third Akaike Memorial Lecture Award

The Institute of Statistical Mathematics (ISM) and the Japan Statistical Society (JSS) jointly created the Akaike Memorial Lecture Award to celebrate the outstanding achievements of the late Dr. Hirotugu Akaike, who greatly influenced a wide range of research by proposing the Akaike Information Criterion (AIC) and establishing a novel paradigm for statistical modeling, distinguished by its predictive point of view, and distinct from traditional statistical theory. The Akaike Memorial Lecture Award recognizes researchers who have achieved outstanding accomplishments that contribute to the field of statistical sciences.

Receiving the Third Akaike Award is **John Brian Copas**, Professor Emeritus, University of Warwick, UK. Professor Copas has had several achievements in statistical methodology with a focus on practical applications. His six papers were read before the Royal Statistical Society (RSS) and published in *JRSS* with discussions. In 1987, he was awarded the Guy Medal in Silver. In recent years, he has been actively engaged in the study of meta-analysis methodology. The Copas selection model is widely used as one of the standard sensitivity analysis methods for assessing the impact of publication bias. Sadly, he will not be able to travel to Japan because of the COVID-19 outbreak. However, he is scheduled to deliver his award lecture online on September 9, 2020, at the plenary session of the Japanese Joint Statistical Meeting by Japanese Federation of Statistical Science Association (JFSSA) 2020 in Toyama Prefecture. Read more at https://www.ism.ac.jp/ura/press/ISM2020-06_e.html

ACM/IMS Transactions on Data Science journal seeks new Editors-in-Chief

Call for Nominations: Editors-in-Chief for *ACM/IMS Transactions on Data Science (TDS)*

https://dl.acm.org/journal/tds

The term of the current Editor-in-Chief (EiC) of the *ACM/IMS Transactions on Data Science (TDS)* journal is coming to an end. ACM (Association for Computing Machinery) and IMS have jointly set up an EiC search committee to identify a team of two or three EiCs that span the statistical and computational elements of data science to reflect the expanded scope of the journal. *TDS* was established in 2018 and has been consistently growing, with over 250 submissions since launch. The acceptance rate in the last 12 months has been 25%.

Journal Scope

The scope of *ACM/IMS Transactions on Data Science* includes cross-disciplinary innovative research ideas and results from all disciplines that comprise data science, such as statistics, mathematics, and computer science. Papers that address challenges ranging from data analytics and machine learning to data quality and data storage/retrieval, while ensuring privacy, fairness, transparency, and provision of social benefit, fall within the scope of the journal.

Nominations

Nominations are invited for a three-year term as *TDS* EiC, beginning on November 1, 2020. The EiC appointment may be renewed at most once. This is a voluntary position, for which ACM and IMS provide the necessary administrative support. Self-nominations are encouraged and should include a statement of the candidate's vision for the future development of *TDS*. Other nominations should include a short CV of the nominee along with a brief statement as to why the nominee should be considered; the committee will reach out to the nominated candidate to seek permission to proceed and to request a vision for the future development of *TDS*. Rather than appointing the EiCs individually, the Committee will work to identify a team with representation from the computer science, statistics, and machine learning communities that has a shared vision of the journal and works well together. As the journal is looking for 2-3 EiCs, team nominations are especially encouraged.

The deadline for submitting nominations is **August 31, 2020**. However, nominations will continue to be accepted until the positions are filled.

The *TDS* EiCs will have full responsibility for the editorial management of the journal consistent with the journal's charter and general ACM and IMS policies. The EiCs are relied on to ensure that the content of the journal is of high quality and that the editorial review process is both timely and fair. They have the final say on acceptance of papers, size of the Editorial Board, and appointment of Associate Editors. A complete list of responsibilities is found in the ACM Volunteer Editors Position Descriptions. Additional information can be found in the following documents:

- Rights and Responsibilities in ACM Publishing: https://www.acm.org/publications/policies/roles-and-responsibilities
- ACM's Evaluation Criteria for Editors-in-Chief: https://www.acm.org/publications/policies/eic-evaluation

Please send all nominations to the EiC search committee chair, Divesh Srivastava (divesh@research.att.com). The search committee members are: Yannis Ioannidis (ATHENA RIC and University of Athens, Greece); Liza Levina (University of Michigan, USA); David Madigan (Northeastern University, USA); Marina Meila (University of Washington, USA); Nuria Oliver (ELLIS and Data-Pop Alliance, Spain and USA); and Divesh Srivastava (AT&T, USA), Chair.

IMS meetings around the world

Joint Statistical Meetings: 2020–2025

IMS sponsored meeting

JSM 2020

August 1–6, 2020. ONLINE ONLY.

ONLINE

w http://ww2.amstat.org/meetings/jsm/2020/

JSM 2020 is not canceled, it's going virtual! After adjusting the schedule for a successful virtual meeting (given speakers in different time zones), the virtual JSM 2020 Program is now available: https://ww2.amstat.org/meetings/jsm/2020/onlineprogram/index.cfm. The ASA staff and JSM program committee continue to transition JSM to a virtual event and appreciate your support during this time. Should you have any questions, please feel free to send an email to meetings@amstat.org.

IMS sponsored meetings: JSM dates for 2021–2025

IMS Annual Meeting @ JSM 2021	2022 Joint Statistical Meetings	IMS Annual Meeting @ JSM 2023	JSM 2024	IMS Annual Meeting @ JSM 2025
August 7–12, 2021, Seattle, WA	August 6–11, 2022 Washington DC	August 5–10, 2023 Toronto, ON, Canada	August 3–8, 2024 Portland, Oregon	August 2–7, 2025 Nashville, TN, USA

One World ABC Seminar (online): https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar

Following the last-minute cancellation of ABC in Grenoble, and the likely cancellation of several workshops and conferences in the near future, including the ABC sessions at ISBA 2020, members of the scientific committee and other ABC researchers decided to launch an online seminar or webinar, around the theme of approximate Bayesian (ABC) methods. This initiative is called One World ABC seminar and is currently held **biweekly at 11:30 UK time (12:30 CET)**. This seminar is destined to aggregate people interested in ABC (approximate Bayesian computation) methods. Participation is free and unlimited but requires registration for access to the Blackboard Collaborate link, which allows for interactions from the participants. The organizers are welcoming proposals for future talks. This webinar is part of the larger One World seminar initiative, which gathers seminars in applied mathematics and data sciences. [*See next page for One World Probability Seminar*]

Bernoulli–IMS One World Symposium 2020

August 24–28, 2020

Online:

https://www.worldsymposium2020.org/

Over 600 pre-recorded talks and 120 posters have been uploaded for this symposium, which will bring together the research community of probability and mathematical statistics and will give as many researchers as possible the opportunity to present their recent research results. The meeting will be virtual with many new experimental features. Participation at the symposium is free, registration is mandatory to get the passwords for the zoom sessions. Over 1500 people have already registered! [*See page 5 for plenary speakers' profiles.*]

ABC in Svalbard

April 12–13, 2021, Svalbard, Norway

https://sites.google.com/view/abcinsvalbard/home

Registration in open, and limited to 100 participants so book soon! ABC in Svalbard is the next edition of a successful workshop series around ABC methods. It aims at attracting researchers at the forefront of research on approximate Bayesian computing methods and promoting original research in that field among various disciplines.

2022 IMS Annual Meeting

June 27–30, 2022

London, UK

w TBA

Mark your calendars for the 2022 IMS Annual Meeting in London. Program and Local Chair: Qiwei Yao.

At a glance: *forthcoming IMS Annual Meeting and JSM dates*

2020

JSM: Online, **August 1–6, 2020**

IMS Annual Meeting **Business/Council meetings will be held online**

2021

IMS Annual Meeting @ JSM: Seattle, **August 7–12, 2021**

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**

More IMS meetings around the world

These IMS sponsored or co-sponsored meetings are known to be either postponed or canceled at the time of printing. Please check for updates on the meeting websites. And if you spot something we're missing, please let us know!

7th Bayes, Fiducial and Frequentist Statistics Conference (BFF7) (http://www.fields.utoronto.ca/activities/20-21/BFF7) is moved from October 26–28, 2020 to a future date. Note new website address.

The 8th Workshop on Biostatistics and Bioinformatics (https://math.gsu.edu/yichuan/2020Workshop/) has been postponed to Fall 2020. New date coming soon.

Frontier Probability Days (http://lechen.faculty.unlv.edu/FPD20/) is now May 16–18, 2021. Registration open until March 16, 2021.

Mathematical Statistics and Learning (https://www.msl2020.org/) is moved to June 1–4, 2021.

Statistics in the Big Data Era (https://simons.berkeley.edu/workshops/statistics-big-data-era) will now take place June 2–4, 2021, at the University of California, Berkeley.

The 2020 WNAR/IMS/KISS/JR Annual Meeting (http://www.wnar.org/event-3603109) is postponed from June 14–17, 2020, to next year in Anchorage, Alaska; dates to be confirmed.

The Bernoulli–IMS World Congress 2020 (https://www.wc2020.org/) in Seoul, South Korea, is postponed to July 19–23, 2021. Details to follow.

There won't be a physical IMS Annual Meeting this year. The next IMS Annual Meeting will take place at JSM 2021, August 7–12, 2021, in Seattle, WA, USA.

22nd Meeting of New Researchers in Statistics and Probability

The IMS New Researchers Conference (http://groups.imstat.org/newresearchers/conferences/nrc.html) will either be postponed until spring 2021 or canceled. The primary purpose of the NRC is for new researchers to meet each other, interact, share ideas and be exposed to leaders in the field. Because JSM will be online, we feel it is best to delay the NRC until it can be held in person. We are exploring options for hosting NRC in early spring 2021 but do not have a location or date selected yet; we will update the website in early September. Otherwise, see you at the 2021 IMS NRC which will be held during the first week of August in Seattle before the Joint Statistical Meetings.

One World Probability Seminar (OWPS): Ongoing and Online

https://www.owprobability.org/

The short term goal of the One World Probability Seminar is to provide access to a seminar for as many researchers as possible. For the indefinite future, the seminar is intended to foster ideas among our truly global research community and to help reduce our impact on climate change. Initially, the seminar will have an experimental character. We will need to understand how to work with online tools and learn how to deal with the vulnerabilities and bottlenecks of online traffic. Please join us in the long journey ahead!

FODS2020 ACM–IMS Foundations of Data Science Conference

October 18–20, 2020. Online: https://fods.acm.org

The Association for Computing Machinery (ACM) and the IMS have come together to launch a conference series on the Foundations of Data Science. Our inaugural event, the ACM–IMS Interdisciplinary Summit on the Foundations of Data Science, took place in San Francisco in 2019. Starting in 2020 we will have an annual conference with refereed conference proceedings. This interdisciplinary event will bring together researchers and practitioners to address foundational data science challenges in prediction, inference, fairness, ethics and the future of data science.

IMS Asia Pacific Rim Meeting 2021

Now in January 2022, dates to be announced

Melbourne, Australia

w http://ims-aprm2021.com/

The sixth IMS Asia Pacific Rim Meeting (IMS-APRM) was scheduled to take place in Melbourne, Australia from 5 to 8 January 2021. It is postponed until January 2022. Firm dates will be announced later.

Bernoulli–IMS 11th World Congress in Probability and Statistics

(including the 2024 IMS Annual Meeting)

August 12–16, 2024

Ruhr-University Bochum, Germany

w TBC

Details to follow, but for now, please save the date!

IMS sponsored meeting

ENAR dates, 2021–2022

March 14–17, 2021: Baltimore, MD, USA

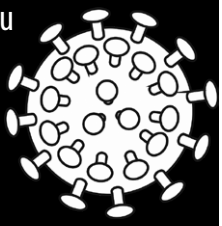
March 27–30, 2022. Houston, TX, USA

w www.enar.org/meetings/future.cfm

Other meetings and events around the world

COVID-19: CHECK FIRST

Please check for updates on the websites of any meetings you are planning to attend in the coming months: the situation is still changing. The information here may be out of date by the time you read this! Let us know if you have any updates: email **bulletin@imstat.org**.



These meetings are rearranged: Check for updates on their websites.

The **Bocconi Summer School** (https://www.unibocconi.eu/wps/wcm/connect/Bocconi/SitoPubblico_EN/Navigation+Tree/Home/Programs/PhD/PhD+in+Statistics/Summer+School+in+Advanced+Statistics+and+Probability/) will be rescheduled in 2021.

Conference on Applied Statistics in Agriculture and Natural Resources (https://conference.ifas.ufl.edu/applied-stats/) is moved to April 25–27, 2021, in Gainesville, FL, USA.

LinStat 2020, the International Conference on Trends and Perspectives in Linear Statistical Inference (https://linstat2020.science.upjs.sk/), is postponed until June 28–July 2, 2021.

The **Australian Statistical Society and New Zealand Statistical Association Conference, ANZSC 2020** (https://anzsc2020.com.au) is moved to July 5–9, 2021.

2020 Women in Statistics and Data Science (WSDS) conference
September 30–October 2

Online: https://ww2.amstat.org/meetings/wsds/2020/index.cfm

The 2020 Women in Statistics and Data Science (WSDS) conference, slated for September 30–October 2, is the latest ASA meeting to make the switch to a virtual format amid ongoing COVID-19 concerns. Although there is nothing quite like the in-person experience, we've found two ways a virtual meeting has shown to be a positive alternative:

Participants can revisit programming "on demand" through the conference platform for up to 30 days following the meeting.

Attendees can participate from anywhere in the world—no travel, no hotels—just great programming at your fingertips.

Registration is open now: https://ww2.amstat.org/meetings/wsds/2020/registration.cfm

International Biometric Conference (IBC2020)
July 6– August 28, 2020

Online: https://www.ibc2020.org/home

IBC2020 has gone virtual. By registering you will receive full access to all live sessions over multiple weeks, dates and times, in July and August of 2020.

MIMAR, the 11th IMA International Conference on Modelling in Industrial Maintenance and Reliability
June 29–July 1, 2021 [postponed from 2020]
Nottingham, UK

https://ima.org.uk/12183/11th-ima-international-conference-on-modelling-in-industrial-maintenance-and-reliability-mimar/

The 11th International Conference on Modelling in Industrial Maintenance and Reliability (MIMAR) will take place at the Park Plaza Hotel, Nottingham, UK from 29 June – 1 July 2021. This event is the premier maintenance and reliability modelling conference in the UK and builds upon a very successful series of previous conferences. It is an excellent international forum for disseminating information on the state-of-the-art research, theories and practices in maintenance and reliability modelling and offers a platform for connecting researchers and practitioners from around the world.

EVA 2021: Extreme Value Analysis
June 28–July 2, 2021
Edinburgh, UK

https://www.maths.ed.ac.uk/school-of-mathematics/eva-2021

The 12th International Conference on Extreme Value Analysis will take place in Edinburgh, United Kingdom. It will schedule presentations on all probabilistic and statistical aspects of Extreme Value Analysis and applications in climate and atmospheric science, industrial risks, geosciences, hydrology, finance, economics and insurance, biosciences, physics, and telecommunications and stochastic networks.

All students, researchers, practitioners, and scientists with interests in statistics of extremes are welcome.

Check the website nearer the time for information on the best student paper competition and the Data Challenge.

More meetings and events around the world

3rd International Conference on Computational Mathematics and Applied Physics (ICCMAP 2021)
January 4–5, 2021
Tokyo, Japan
http://www.iccmap.iisrc.org
The aim of this conference is to provide a platform for scientists, scholars, engineers and students from industry and universities around the world to present ongoing research activities. See the Call for Papers at http://www.iccmap.iisrc.org/call-for-papers/.

3rd International Conference on Statistics: Theory and Applications (ICSTA'21)
August 5–7, 2021
Prague, Czech Republic
https://2021.icsta.net/
3rd International Conference on Statistics: Theory and Applications (ICSTA'21) aims to become the leading annual conference in fields related to Statistics: Theory and Applications. The goal of ICSTA'21 is to gather scholars from all over the world to present advances in the relevant fields and to foster an environment conducive to exchanging ideas and information. This conference will also provide an ideal environment to develop new collaborations and meet experts on the fundamentals, applications, and products of the mentioned fields.

7th Workshop on Stochastic Methods in Game Theory
May 12–18, 2022 [postponed from 2020]
Erice, Italy
https://sites.google.com/view/erice-smgt2020/the-workshop
The goal of this workshop is to examine some recent developments of the interaction between stochastics and game theory. The focus will be on game theoretic models that heavily use stochastic tools and on stochastic methods that find relevant applications in game theory.

This seventh edition of the workshop will focus—not exclusively—on the following topics: Prophet inequalities and secretary problems; Bandit models; Congestion games under uncertainty; Strategic queues; Stochastic games; Learning in games; Information transmission on networks; Social learning; Games with a random number of players; Search games; Stochastic matching; and Blockchain.

The speakers will be scholars in different fields: stochastics, economics, operations research, computer science, mathematics, control engineering, etc.

3rd IMA and OR Society Conference on Mathematics of Operational Research
April 22–23, 2021.
Birmingham, UK
https://ima.org.uk/14347/14347/
Building on the success of the two previous conferences held in 2017 and 2019 this conference will draw together the considerable community of researchers and practitioners who develop new mathematics of relevance to, and which underpin applications in Operational Research (OR). It will take a comprehensive view, it will showcase activity from across OR, and will welcome both contributions which have a clear application focus as well as those which are theoretically driven. Contributions will be expected to showcase both significant new mathematics and OR relevance.

The conference will host plenaries from leading international experts. Invited speakers are Jakob Blaavand (The Smith Institute), Claudia D'Ambrosio (École Polytechnique, Paris), Kevin Glazebrook (Lancaster University), Nick Harris (Dstl), Dolores Romero Morales (Copenhagen Business School), Professor Edmund Burke (University of Leicester). The President of the Operational Research Society will be giving an after dinner speech on the evening of 22 April 2021.

Call for Papers and Posters: Papers will be considered for the conference based on a 300 word abstract for oral presentation. Abstracts should be submitted by Thursday 31 December 2020 via https://my.ima.org.uk/. Posters will be considered for the conference based on a 300 word abstract for poster presentation. Posters are encouraged particularly from PhD students, and a prize for the best poster presentation will be awarded. Abstracts should be submitted by Friday 26 February 2021 via https://my.ima.org.uk/

Sixth International Conference on Establishment Statistics (ICES VI)
June 14–17, 2021 [postponed from 2020]
New Orleans, USA
https://ww2.amstat.org/meetings/ices/2021/index.cfm
Situated in the French Quarter of New Orleans—a unique city known for its vibrant music and delicious beignets—ICES VI is expected to be attractive to professionals and researchers in statistics on businesses, farms, and institutions throughout the world. The conference will include the following: Short courses at introductory, intermediate, and advanced levels Introductory overview lectures about important and timely topics Selection of invited and contributed papers Two keynote speakers Speed sessions and software demonstrations All conference activities will be held at the Ritz-Carlton, New Orleans.

Induction Course for New Lecturers in the Mathematical Sciences
September 8–9, 2021
Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
https://ima.org.uk/13572/induction-course-for-new-lecturers-in-the-mathematical-sciences-2021/
The Induction Course for New Lecturers in the Mathematical Sciences has been designed by the mathematics community so that it is ideally suited for anyone who is new to or has limited experience teaching mathematics or statistics within UK higher education. It will be delivered by individuals with significant experience of teaching in the mathematical sciences and will focus upon the specific details and issues that arise in mathematics and statistics teaching and learning within higher education including topics such as: Lecturing; Supporting student learning; Making teaching interactive; Assessment, examinations and feedback; Linking teaching & research; Using technology to enhance teaching and learning; Using examples and mathematical problem solving. Additionally, there will be significant opportunities for delegates to discuss their own ideas, challenges and experiences with the session facilitators so that individual queries can be answered. In the past, attendance has been recognised as contributing towards some introductory institutional programmes in learning and teaching for new staff, and for the 2020 Induction Course accreditation will be provided through the Institute of Mathematics and its Applications relative to the UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education.

Employment Opportunities around the world

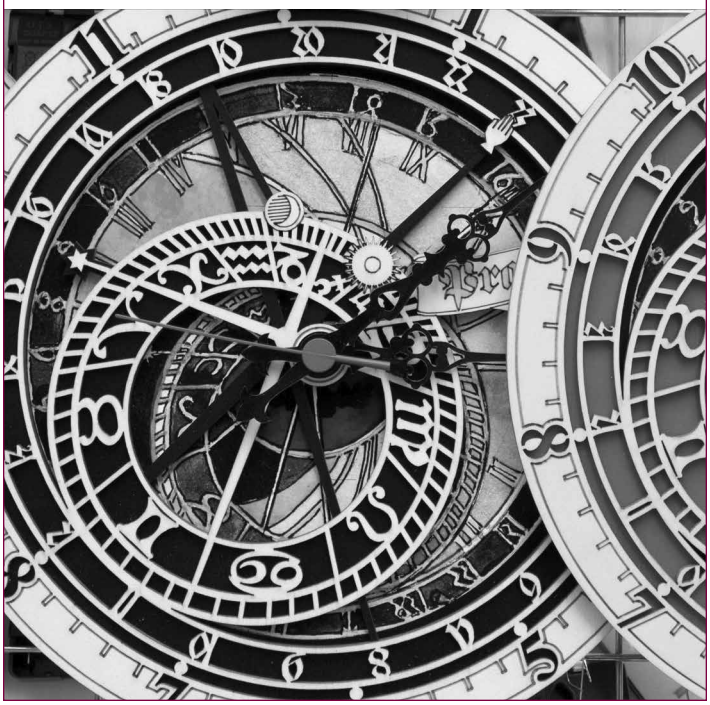
Canada: Toronto, ON
University of Toronto, Department of Statistical Sciences
Assistant Professor, Teaching Stream
https://jobs.imstat.org/job//54229931

Canada: Toronto, ON
University of Toronto, Department of Statistical Sciences
Assistant Professor, Teaching Stream
https://jobs.imstat.org/job//54229925

China: Beijing
Academy of Mathematics and Systems Science, Chinese Academy of Sciences
Chair Professor Position in Statistics
https://jobs.imstat.org/job//53542035

United States: Pittsburgh, PA
Carnegie Mellon University
Information Systems One Year Teaching Post-Doc
https://jobs.imstat.org/job//54182782

United States: Seattle, WA
Seattle Colleges
Full Time Tenure Track Faculty - Mathematics
https://jobs.imstat.org/job//54177662



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

NEW ONLINE ims One World ABC Seminar
w https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar

NEW ONLINE ims One World Probability Seminar
w https://www.owprobability.org/one-world-probability-seminar

August 2020

NEW ONLINE July 6–August 28: **International Biometric Conference (IBC2020)** w https://www.ibc2020.org/home

ONLINE ims August 1–6. **JSM 2020**
w https://ww2.amstat.org/meetings/jsm/2020/index.cfm

POSTPONED ims ~~August 17–21~~ [NOW JULY 19–23, 2021]: Seoul, Korea. **Bernoulli/IMS World Congress in Probability and Statistics** w http://www.wc2020.org

NEW ONLINE August 19–21: ~~Prague, Czech Republic~~. **2nd International Conference on Statistics: Theory and Applications (ICSTA'20)** w https://icsta.net/

NEW ONLINE August 23–27: ~~Krakow, Poland~~. **41st Annual Conference of the ISCB** w www.iscb2020.info

NEW ONLINE ims August 24–28. **Bernoulli–IMS One World Symposium 2020.** w https://www.worldsymposium2020.org/

September 2020

September 9–11: Manchester, UK. **2nd IMA Conference on the Mathematics of Robotics** w https://ima.org.uk/11468/ima-conference-on-mathematics-of-robotics/

POSTPONED ~~September 20–23~~ [NOW September 19-22, 2021]: Ribno (Bled), Slovenia. **Applied Statistics 2020 (AS2020)** w http://conferences.nib.si/AS2020

ONLINE September 23–25: **ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop (Biopharm 2020)** w https://ww2.amstat.org/meetings/biop/2020/

October 2020

ONLINE October 1–3: **Women in Statistics and Data Science Conference** w https://ww2.amstat.org/meetings/wsds/2020/

ONLINE ims October 18–20: Seattle, WA, USA. **ACM–IMS Foundations of Data Science Conference** w https://fods.acm.org

POSTPONED ims ~~October 26–28~~: Toronto, Canada. **7th Bayes, Fiducial and Frequentist Statistics Conference, BFF7** w https://www.fields.utoronto.ca/activities/20-21/BFF7

November 2020

November 4–6: Utrecht, The Netherlands. **Big Data Meets Survey Science (BigSurv20)** w https://www.bigsurv20.org/

December 2020

December 7–11: Atlantic City, USA. **76th Annual Deming Conference on Applied Statistics** w https://demingconference.org

December 15–17: Manipal, India. **28th International Workshop on Matrices and Statistics (IWMS 2020)** w https://carams.in/events/international-workshop-on-matrices-and-statistics/

January 2021

NEW January 4–5: Tokyo, Japan. **3rd International Conference on Computational Mathematics and Applied Physics (ICCMAP 2021)** w http://www.iccmap.iisrc.org

POSTPONED ims ~~January 5–8~~ [NOW January 2022]: Melbourne, Australia. **IMS Asia Pacific Rim Meeting (IMS-APRM2021)** w http://ims-aprm2021.com/

March 2021

ims March 14–17: Baltimore, MD, USA. **ENAR Spring Meeting** w http://www.enar.org/meetings/future.cfm

April 2021

ims April 12–13: Svalbard, Norway. **ABC in Svalbard** w https://sites.google.com/view/abcinsvalbard/home

NEW April 22–23: Birmingham, UK. **3rd IMA and OR Society Conference on Mathematics of Operational Research** w https://ima.org.uk/14347/14347/

NEW April 25–27: Gainesville, FL, USA. **Conference on Applied Statistics in Agriculture and Natural Resources** w https://conference.ifas.ufl.edu/applied-stats/

May 2021

NEW ims May 16–18: Las Vegas, USA. **Frontier Probability Days** w http://lechen.faculty.unlv.edu/FPD20/

June 2021

ims June (dates TBA): Anchorage, Alaska, USA. **WNAR/IMS/JR Meeting** w https://www.wnar.org/page-18098

ims June 1–4: Barcelona, Spain. **Mathematical Statistics and Learning** w https://www.msl2020.org

ims June 2–4: Berkeley, CA, USA. **Statistics in the Big Data Era** w https://simons.berkeley.edu/workshops/statistics-big-data-era

NEW June 14–17: New Orleans, USA. **Sixth International Conference on Establishment Statistics (ICES VI)** w https://ww2.amstat.org/meetings/ices/2021/index.cfm

June 14–18: Paphos, Cyprus. **International Symposium on Nonparametric Statistics 2020** w http://cyprusconferences.org/isnps2021/

June 20–26: Portoroz, Slovenia. **8th European Congress of Mathematics** w http://www.8ecm.si/

June 28-July 2: Kunming, China. **ISBA 2021: World Meeting of the International Society for Bayesian Analysis** w https://bayesian.org/isba2020-home/

NEW June 28–July 2: Edinburgh, UK. **Extreme Value Analysis** w https://www.maths.ed.ac.uk/school-of-mathematics/eva-2021

June 28–July 2: Nový Smokovec, Slovakia. **LinStat 2021** w https://linstat2020.science.upjs.sk/

NEW June 29–July 1: Nottingham, UK. **MIMAR (11th Modelling in Industrial Maintenance and Reliability)** w https://ima.org.uk/12183/11th-ima-international-conference-on-modelling-in-industrial-maintenance-and-reliability-mimar/

July 2021

July 5–9: Gold Coast, QLD, Australia. **2020 Australian and New Zealand Statistical Conference** w https://anzsc2020.com.au

July 11–15: The Hague, The Netherlands. **63rd ISI World Statistics Congress 2021** w http://www.isi2021.org/

July 15–18: Montreal, Canada. **Statistics 2021 Canada** w https://www.concordia.ca/artsci/events/statistics-2021.html

August 2021

NEW August 5–7: Prague, Czech Republic. **3rd International Conference on Statistics: Theory and Applications (ICSTA'21)** w https://2021.icsta.net/

ims August 7–12: Seattle, WA, USA. **IMS Annual Meeting at JSM 2021** w http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

September 2021

NEW September 8–9: Cambridge, UK. **Induction Course for New Lecturers in the Mathematical Sciences** w https://ima.org.uk/13572/induction-course-for-new-lecturers-in-the-mathematical-sciences-2021/

Continues on **page 26**

International Calendar *continued*

September 2021 *continued*

September 19–22: Ribno (Bled), Slovenia. **Applied Statistics 2020 (AS2020)** **w** http://conferences.nib.si/AS2020

January 2022

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

March 2022

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

May 2022

NEW 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

NEW ims June 27–30: London, UK. **IMS Annual Meeting** **w** TBC

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

July 2022

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

August 2022

ims August 6–11: Washington DC, USA. **JSM 2022** **w** http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx

August 2023

ims August 5–10: Toronto, ON, 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

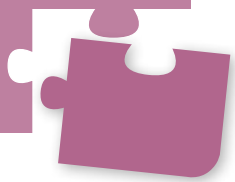
August 2025

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 erg@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/



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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 1**	August 15	September 1
7: Oct/Nov	**September 15**	October 1	October 15
8: December	**November 1**	November 15	December 1

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Articles

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