



September 2021

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IMS Presidential Address(es)

Each year, at the end of their term, the IMS President gives an address at the Annual Meeting. Because of the pandemic, the Annual Meeting, which would have been at the World Congress in Seoul, didn't happen, and Susan Murphy's Presidential Address was postponed to this year. The 2020–21 President, Regina Liu, gave her Address by video at the virtual JSM, which incorporated Susan's video Address. The transcript of the two addresses is below.



2020–21 IMS President Regina Liu

Regina Liu: It's a great honor to be the IMS President, and to present this IMS Presidential address in the 2021 JSM. Like many other things in this pandemic time, this year's IMS Presidential Address will be also somewhat different from those in the past. Besides being virtual, it will be also given jointly by the IMS Past President Susan Murphy and myself. The pandemic prevented Susan from giving her IMS Presidential Address last year. In keeping with the IMS tradition, I invited Susan to join me today, and I am very pleased she accepted my invitation. Now, Susan will go first with her 2020 IMS Presidential Address. Please join me in welcoming the IMS Past President Susan Murphy.

Susan Murphy: It was an honor to be the President of IMS during 2019–2020. It was also stressful to be the President of IMS in 2019–2020.

It was the best of times, as well as the worst of times. It was the best, because of all the wonderful people I was privileged to work with, and it was the worst due to the multiple tragedies and painful events that occurred.

In Fall 2019, I came in with this agenda that I wanted to improve involvement in IMS by all researchers and, specifically, with a special emphasis on new researchers. And we made great progress! By "we" I mean thanks to the then-leaders of the IMS New Researchers Group (NRG), Alex Volfovsky and Bailey Fosdick, as well as the IMS Council. Now, the NRG has an ex officio appointment on the IMS Council so they can be aware of what's going on in IMS. Further, the program committee for our IMS Annual Meetings will now include a representative from the New Researchers Group, and this group will organize an invited session.

Also, two of our most important committees are the Nominations and Special Lectures committees. And now these committees will include a New Researcher (an individual who is less than or equal to 10 years from their PhD). So, my thanks to Alex, Bailey, and the IMS Council for seeing this initiative through.

Not only did we want to provide various avenues for new researchers to become more involved in our society, IMS, but also we wanted—actually, we need—more

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IMS Members' News

Honorary Doctorate awarded to Bin Yu

Bin Yu of the University of California, Berkeley has been awarded an honorary doctorate from the University of Lausanne (UNIL) Faculty of Business and Economics in Switzerland. She was honored for being one of the most influential researchers of her time in statistics and data science, for the excellence and impact of her work, and for her major contributions to the development and advancement of machine learning.

Bin Yu was interviewed by journalist Nathalie Randin [<https://www.youtube.com/watch?v=1JRGPghcYZU>], with an introduction in French by Dean Jean-Philippe Bonardi of UNIL (you can read an English translation at <https://www.stat.berkeley.edu/~binyu/Intro-DeanBonardi-UNIL.pdf>).



Bin Yu

Marloes Maathuis receives Bernoulli Society's 2021 Ethel Newbold Prize

The Bernoulli Society 2021 Ethel Newbold Prize was awarded to Marloes Maathuis at the ISI World Statistics Congress in The Hague.



Marloes Maathuis

The Ethel Newbold Prize is awarded biannually to an outstanding early- or mid-career statistical scientist for a body of work that represents excellence in research in mathematical statistics, and/or excellence in research that links developments in a substantive field to new advances in statistics.

Marloes Maathuis is a professor at the Seminar for Statistics (SfS) at ETH Zurich. She conducts research in the fields of causal inference, graphical models, high-dimensional statistics and applications of statistics.

Jeff Wu receives Sigma Xi's Monie A. Ferst Award

C. F. Jeff Wu, Professor and Coca Cola Chair in Engineering Statistics at the School of Industrial and Systems Engineering (ISyE), Georgia Institute of Technology, has been honored with Sigma Xi's Monie A. Ferst Award. This national-level award, sponsored by Georgia Tech's Sigma Xi chapter, recognizes those who have made notable contributions to the motivation and encouragement of research through education.

Wu's dedication to educating future researchers can be seen throughout his distinguished academic career. He has supervised 49 doctoral students, 35 of whom teach in major research departments or institutions in statistics, engineering, and business around the globe. Wu's nomination letter noted that "Dr. Wu has influenced multiple generations of researchers and students through his devoted teaching and mentoring. [...] His students would agree on one thing: Dr. Wu is more than a research advisor. He remains in their lives as a mentor, friend, and guide even after graduation."

"This award came as a pleasant surprise and gives me consolation during this difficult time," said Wu. "Educating and mentoring students is like polishing diamonds—it takes patience and effort, and the whole process is inspiring and rewarding."

As well as this prestigious honor, Wu recently received the Class of 1934 Distinguished Professor Award, the highest honor Georgia Tech can bestow on a faculty member.

More Members' News

Ivan Corwin wins Loève Prize

The 2021 **Line and Michel Loève International Prize in Probability** is awarded to Ivan Corwin of Columbia University. The prize, which carries a monetary award of \$30,000, will be presented at a ceremony in Berkeley in Fall 2021.

Ivan Corwin received his PhD in 2011 under Gérard Ben Arous at New York University. He is best known for his work on the KPZ (Kardar–Parisi–Zhang) model and variants, which arise from many different models from statistical physics. Over the last decade, this has become one of the most active and deep areas of mathematical probability. Starting with his influential 2012 survey, *The Kardar–Parisi–Zhang Equation and Universality Class*, and continuing with a long sequence of technical papers with numerous co-authors, Corwin has become the recognized leader in this area, proving rigorously some predictions from physics, establishing numerous precise mathematical properties and formulas, and elucidating the connections with related process such as ASEP.

The Prize commemorates Michel Loève, Professor at the University of California, Berkeley, from 1948 until his untimely death in 1979. The Prize was established by his widow, Line, shortly before her death in 1992. Awarded every two years since 1993, it is intended to recognize outstanding contributions by researchers in probability who are under 45 years old.

Noether Awards made to Regina Liu and Anru Zhang

The ASA Noether Awards were established in 1999 as a tribute to Gottfried Emanuel Noether, a leading scholar in nonparametric statistics with interests in research and teaching. The Noether Senior Scholar Award is given each year to a distinguished senior researcher/teacher in nonparametric statistics and the Noether Young Scholar Award is given each year to an accomplished young researcher.

Regina Liu receives the **Noether Senior Scholar Award**, for fundamental contributions to statistical science including transformational research in the areas of data depth, bootstrapping, confidence distributions, and fusion learning.

Anru Zhang receives the **Noether Young Scholar Award**, for breadth of research in statistical learning and high dimensional statistical inference, in particular, innovative and fundamental contributions to tensor data analysis, matrix recovery, and related optimization methods.

See <https://www.amstat.org/ASA/Your-Career/Awards/Gottfried-E-Noether-Awards.aspx> for past recipients.

Vannevar Bush Faculty Fellowships

We previously announced that Kavita Ramanan was selected for the 2021 class of Vannevar Bush Faculty Fellows, the US Department of Defense's flagship single investigator award. In addition, **Michael I. Jordan** (University of California, Berkeley) was selected in the same class of eight Fellows. His research topic is, "On Intelligence and Networks: Conjoined Research in Machine Learning, Microeconomics, and Dynamical Systems." Read more at <https://basicresearch.defense.gov/Programs/Vannevar-Bush-Faculty-Fellowship/2021-Vannevar-Bush-Fellows/>

Clarification

John Kingman was mentioned in the last issue because he became an Honorary Fellow of the UK's Royal Society. This is, in fact, the IMS Fellow Sir John Kingman's son, (also) John Kingman! Apologies for any confusion.

 = access published papers online

IMS Journals and Publications

Annals of Statistics: Ming Yuan, Richard Samworth

<https://imstat.org/aos>

 <https://projecteuclid.org/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/aopap>

Statistical Science: Sonia Petrone

<https://imstat.org/sts>

 <https://projecteuclid.org/ss>

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 Giacomini

 <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/aih>


 <https://projecteuclid.org/aih>

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:

Krzysztof Bogdan, Krzysztof Debicki

 <http://www.math.uni.wroc.pl/~pms/>

Stochastic Systems: Shane Henderson

 <https://pubsonline.informs.org/journal/stsy>

IMS Presidential Addresses continued

Susan Murphy's address continued from cover

involvement from all IMS members. Thus, the IMS Council decided that at each standalone IMS annual meeting (every four years, starting with the 2022 London meeting) approximately half of the IMS invited sessions will be competitive. This allows IMS members from all over—small universities, big universities, small research centers, big research centers—to submit a proposal for an invited session. In fact, there's a call for proposals on the website of the 2022 IMS Annual Meeting in London [<https://www.imsannualmeeting-london2022.com/call-for-proposals>], so now's the time to submit your proposal for an invited IMS session [*note that the submission deadline is now September 15, 2021!*]

Through heroic and persistent efforts Liza Levina and David Madigan have over multiple years and with multiple IMS presidents, including our current one Regina Liu, led our efforts to start an IMS Data Science journal. They have succeeded! In Fall 2021, the *ACM/IMS Journal of Data Science* will be open to submissions, so now is the time to start thinking about that paper that you want to submit this Fall.

So I've given you a number of “best of times”. I have to get to the pandemic, which epitomizes the worst of times. This too, though, is still mixed with some best times, due to efforts by individuals.

So, with this pandemic, of course, everything went haywire, and in many areas of the world right now, this continues to bring grief. In late March 2020, I was forced to send a message to all IMS members that, due to the pandemic, the Bernoulli Society/IMS World Congress 2020 would be postponed to 2021. We were all going into isolation.

However, we were really fortunate that our partner, the Bernoulli Society, led by their President, Claudia Klüppelberg, along with Leif Döring, suggested we try a new approach to conducting a conference, namely following the path of the highly successful One World Probability Seminar, to hold the first Bernoulli Society/IMS One World Virtual Symposium. Leif was like a one-man hurricane! He ensured the successful completion of all the critical parts to pull this off, it was fantastic. If you didn't get to attend, I suggest you Google “Bernoulli Society/IMS One World Virtual Symposium 2020” and you'll see the list of all the speakers and the many interactive events. There were approximately 3000 registered attendees—think about that, it's fantastic! I participated in some of the interactive events and they really gave me a lot of hope—this was last summer, I needed some hope—and I began to see that, despite the pandemic, we will continue to innovate and find ways to connect with one another. It was great.



Of course, at that time, a year ago, we didn't realize that a year later—*now*—this pandemic would still be with us and, in some ways it's worse than ever.

The Bernoulli Society/IMS World Congress conference, as well as the Joint Statistical Meetings, are virtual this year and, of course, this is the reason for these comments, these *virtual* comments, that I am making right now.

All of you are aware of the enormous burden the pandemic has placed on people living across the world, and most recently on many of our colleagues in India. Many colleagues have family and friends who have been infected and/or killed by COVID-19. So, it's with this in mind that I want to really acknowledge the enormous debt that IMS owes to our World Congress Program Chair Siva Athreya in Bangalore, India, for his perseverance through these really hard times. Thank you so very much, Siva.

Another painful time occurred last summer, on top of the pandemic, and this required a good bit of introspection. As you know, IMS is a member society of COPSS (the Committee of Presidents of Statistical Societies), which used to award the R.A. Fisher Award and Lectureship. Members of COPSS, including IMS, confronted Fisher's role, and the role of statistics more broadly, in eugenics and, in particular, how this role impacts our members today. This was a really controversial time and there were valid points on all sides and a great deal of sadness expressed. In the end, COPSS voted to retire the Fisher Award and replace it with the COPSS Distinguished Achievement Award and Lectureship.

Now, I'm going to end my statement with a pitch. This pitch is to **attend our June 27–June 30, 2022, IMS Annual Meeting in London!** Firstly, the Program Chair, Qiwei Yao is doing a great job organizing the meeting. Secondly, IMS has been working with COLT, the Conference On Learning Theory: this conference attracts both theoretical computer scientists and a number of

probabilists, who also go to IMS meetings. Their conference, their COLT meeting, starts on July 2, so there's one day in between the two meetings, and, on that day, IMS and COLT will run a joint workshop for both organizations. I have to confess here that I took advantage my presidency of IMS to appoint myself as one of the co-organizers of this joint workshop, along with two COLT members. We already have our speakers lined up, one of whom is IMS member Emmanuel Candès. It's going to be great! If you register for the IMS meeting, you'll automatically be registered for the workshop; if you register for the COLT meeting, you'll automatically be registered for the workshop. It's going to be a really exciting week so watch for announcements. I hope to see you in real life, "IRL," in London, Summer '22! Thank you.

Regina Liu continues:

Thank you Susan! Last year, when Susan and I were working on the title and abstract for this presidential address, the COVID situation was dire, although there was a glimmer of hope with vaccines to blunt the trend. We so much wanted to feel hopeful and ambitious. But the long and lingering isolation seems to have made me more reflective. Like a few other things that came out of this COVID time, this reflective mode may not be all bad. It may help us take stock of what we have become and how we can reinvigorate ourselves moving forward.

Taking stock, we certainly did. In March, we conducted a survey to assess how effective IMS is in representing our profession, and how it can better serve its members. We are grateful that more than 1800 members responded to the survey. For that, we thank them. (On that note, I hope that all members know that their input is always welcome and valued, even without the survey.)

The survey collected very useful information which will help shape our vision for moving forward. We thank Junhui Cai, Nicole Pashley and Linda Zhao for their excellent analysis and report on the survey data, which was published in our August *Bulletin*.

In this report, two action items stand out.

The first is "**Broader Future Directions for IMS**": there is a strong wish from the respondents to see the IMS capitalize on the unprecedented expansion of our profession and grow in the directions of machine learning and data science, broadly defined, of course.

The second is on "**Membership Base Expansion**": the data clearly indicate the need for the IMS to strengthen its membership drive effort, to:

- (i) retain its student members after graduation and encourage them to participate in the IMS New Researcher Group (NRG), and

- (ii) recruit more members from emerging areas of data science, underrepresented groups and from regions outside of North America.

The IMS leadership team are exploring ideas for carrying out these action items, including establishing a **Committee on Outreach**, possibly with help from outside PR professionals.

Still on the survey, I was really happy to see that many expressed their **willingness to volunteer for IMS service**. The IMS obviously needs you, and **we would love to know who you are!** Please don't be shy and do contact us. Your participation in IMS activities is always welcome and appreciated!

Among the IMS recent exciting developments, the newly established **IMS Grace Wahba Award and Lecture** certainly stands out. It's a wonderful tribute to Grace's exceptional achievements and contributions to statistics and science in general. Grace has been a role model for many, myself included. Independently of her gender, Grace's achievements clearly well justify this honor. But the timing of the establishment of this IMS Lecture highlights and imparts special significance to the IMS's commitment to equality and diversity in honoring and supporting science and its members. An exciting inaugural celebration for the Wahba Award and Lecture has been planned for next year's IMS Annual Meeting in London, with the distinguished speaker **Michael Jordan**. So please come and join this celebration next June.

Further on the subject of diversity, the IMS has established the **IMS Committee on Diversity, Equality and Inclusion**, currently chaired by Nicole Lazar. Thanks to the hard work of the committee, several of their recommendations are to be implemented soon to further affirm IMS's commitments to DEI.

IMS has several recent initiatives to enhance its membership engagement. They include setting up the **IMS New Researchers Group** as a platform for networking and support among new researchers, as well as some concrete changes in IMS committee make-ups to facilitate NRG's participation in the IMS decision-making process. Another is the setting up the **IMS Watercooler Chat** as an informal and convenient online platform for career development and general support for our members. The IMS leadership team will continue to find new ways to engage members. Of course, if you have good ideas for us, we would love to hear them.

Despite the difficulties in the last year and a half, the IMS did carry out most of its planned events, including the postponed 2020 Bernoulli/IMS World Congress in Seoul, South Korea, and the IMS program in this virtual JSM. On behalf of the IMS, I would like to express our thanks to the program committees for these

Presidents' Address

Regina Liu's address continued from page 5

events, especially to Siva Athreya and Hee-Seok Oh, the program and local committee chairs of the World Congress, and to Bodhi Sen, the IMS program chair of the 2021 JSM.

As mentioned in Susan's address, the long awaited *ACM/IMS Journal of Data Science* will begin next year, 2022. It has a dream team of inaugural co-editors: Jelena Bradic, John Lafferty and Stratos Idreos. We can't thank them enough for their efforts in taking on this important task for us. They have set a broad vision and an incisive plan for *JDS*, which will certainly mark great strides toward IMS's growth in the direction of data science. Do watch out for the coming announcements and plan your participation and submissions to *JDS*.

Finally, I should point out that the IMS Presidential Address session is traditionally also the occasion for two IMS major celebrations: one is to **express our gratitude** to the outgoing officers and the editors of IMS journals, and the other is to **celebrate the achievements** of IMS award recipients. Regrettably, we've had to present all these acknowledgments and awards by mail. Although not nearly as personal or as ceremonious, it surely does not diminish the depth of our gratitude or the prestige of the awards.

In particular, I would like to take this opportunity to thank our outgoing Past President Susan Murphy for her strong leadership, and the outgoing Program Secretary Ming Yuan for his dedication to the IMS, despite the disruption and turbulence from the pandemics. Last but not least, I would like to congratulate the IMS award recipients and the 41 newly elected IMS Fellows on their well-deserved honors! They make the IMS shine, and they surely make us all very proud. Thank you!

Profile: Michael Klass

Jim Pitman paid tribute to his long-term colleague and distinguished researcher in probability theory Michael J. Klass, UC Berkeley, on Michael's retirement in July 2020. Michael will continue to be involved in the department as Professor Emeritus and Professor in the Graduate School. Below, Jim describes Michael's career:

Despite having broken his neck and using a wheelchair since 1965, Michael Klass received his PhD in 1972 in Mathematics at UCLA, where his thesis work in enumerative combinatorics was advised by Bruce Rothschild. Subsequently he wrote a paper fully generalizing Burnside's foundational combinatorial lemma. After a post-doctoral position at Caltech and the Jet Propulsion Laboratory, he was appointed in Berkeley first as a Miller Fellow in 1974, then as Assistant Professor in 1975, moving through the ranks to Full Professor in 1984. He was elected a Fellow of the IMS in 1979.

In addition to his thesis work at UCLA in the 1970s, Michael collaborated with Tom Ferguson, leading to the Ferguson–Klass representation of atom sizes in Dirichlet and other completely random measures. These now play a central role in modern Bayesian nonparametric theory, and in associated machine learning algorithms such as latent Dirichlet allocation. In other early work, Michael studied optimal stopping problems for normalized sums of independent random variables, and associated maximal inequalities and limit theorems.

In the mid to late 1970s, Michael developed extensions of the classical law of the iterated logarithm for random variables not subject to traditional moment conditions. That involved developing novel functionals of the distribution of a long-tailed random variable (used to construct expectations of functions of sums of independent random variables), which dictate the correct normalization constants for such a result, and a sustained analysis of how these functionals of the underlying distribution of terms affect the long term fluctuations of their partial sums.

By the early 1980s Michael was widely acknowledged as the world's leading expert in the theory of fluctuations of random sums under minimal moment conditions. In other work around this time, Michael collaborated on the development of an estimate of volatility for security prices, based on an analysis of Brownian motion, the now widely cited Garman–Klass volatility estimator. In later work on mathematical finance, he collaborated with Michael Taksar and David Assaf, on an influential article about maximizing the rate at which money can be compounded when moving it back and forth between a log normally distributed asset and the bank, in the presence of brokerage fees.

In a series of papers with Marjorie Hahn in the 1980s and 1990s, Michael developed results for matrix normalization of sums of random vectors in the domain of attraction of the multivariate normal, symmetric stable laws and general affine normalization of sums. Their earlier joint work established a condition for continuity of Gaussian processes, and their later work obtained results for the Radon transform for infinite measures, and a

Continues on page 7

local probability approximation for sums of uniformly bounded independent random variables. In addition, they obtained sharp results on the exponential order of tail probabilities of sums of independent and identically distributed random variables. He continued to work in the 1990s on a variety of problems related to maximal inequalities and the rate of growth of partial sums of independent random variables, including best possible forms of Wald's identity, later demonstrating such results did not extend to randomly stopped quadratic forms of independent random variables.

In the late 1990s, Michael's interest shifted to the study of self-normalized processes. Such processes are the basis of many statistical methods, dating back to the famous Student's t -test due to William Gosset in the early 1900s.

Normalized processes also arise in the study of stochastic integrals, martingale inequalities and limit theorems, likelihood-based methods in hypothesis testing and parameter estimation, and Studentized pivots and bootstrap- t methods for confidence intervals.

From the late 1990s until around 2010, Michael worked with Victor de la Peña at Columbia and Tze Leung Lai at Stanford on limit theorems for self-normalized martingales, based on exponential inequalities derived from variants of Wald's likelihood ratio martingale. The underlying method, of working with integral mixtures of Wald martingales to obtain maximal inequalities, traces back to the 1970 work of Robbins and Siegmund on boundary crossings of Brownian motion. Michael coined the term "pseudo-maximization" for the method, and showed how it could be exploited to obtain new results controlling the behavior of self-normalized martingales. As Michael shows, this technique is very effective in establishing various inequalities



Michael Klass, who has retired from UC Berkeley

for self-normalized processes, in particular exponential bounds and moment bounds, and in the proof of the law of the iterated logarithm, which he showed could be established for arbitrary sums of random variables without any conditions save that the sum diverges. See the 2007 review article of de la Peña, Klass and Lai in *Probability Surveys* for a masterly exposition of the method and its applications.

In the late 1990s, Michael collaborated with Krzysztof Nowicki on quadratic forms (and their generalizations) of independent random variables, and expectations of functions thereof. Thereafter they obtained a landmark improvement of Hoffmann-Jørgensen's inequality, somewhat refining and generalizing it later in best possible fashion. Subsequently they made an important contribution to investment theory with limited drawdown. From 2007 until 2016 their work on tail probabilities of arbitrary sums of independent random variables became definitive, ultimately applying without conditions on the random variables or the levels to be exceeded. In addition, they produced a paper with results on optimal growth and distribution of wealth subject to a drawdown constraint, as well as a sequential search algorithm for determining the

exact size of a given population. Important coauthored papers include one with Cun Hui Zhang and one with Kwok Pui Choi.

More recently, Michael has begun work on hypothesis testing in statistics.

Over the course of his career at Berkeley, Michael served as the advisor of five PhD students, several of whom went on to teaching careers, and as the teacher of about 4,000 students at Berkeley and the mentor of many of them. One of his students, Victor de la Peña, now at Columbia University, contributed the following impression, which sums up the feelings of Michael's many students and colleagues over the years, and serves to conclude this brief review of Michael's career:

"Mike is an exemplary teacher, a profound thinker and a compassionate human being, who has positively impacted the lives of many students and fellow researchers. I particularly consider myself fortunate to have had him as an adviser, collaborator and friend. He has been my mentor starting from the time I was a student at Berkeley, guiding me in every step of my career. He is not only an accomplished mathematician, but also a scholar of the Old Testament (still making unusual contributions) and an avid chess player. I have benefitted greatly from our interactions and discussions about probability, philosophy, and religion. He is very compassionate and eager to share his insights with others. His approach to teaching involves conceptualizing the problem, no matter how difficult it is, breaking complex ideas into digestible parts, and presenting them in the most straightforward manner. He is strong in the face of adversity and resilient beyond any measurable degree. Most importantly, his seriousness of purpose is only matched by his wonderful sense of humor. As Mike starts a new chapter in his illustrious career, we wish him good health and longevity, so that he continues to enrich our lives by his wisdom, camaraderie and scholarship."

Recent papers

Annals of Probability

The *Annals of Probability* publishes research papers in modern probability theory, its relations to other areas of mathematics, and its applications in the physical and biological sciences. Emphasis is on importance, interest, and originality—novelty and correctness are not sufficient for publication. The *Annals* also publishes authoritative review papers and surveys of areas in vigorous development. The Co-editors are Alice Guionnet and Christophe Garban. Access papers: <https://projecteuclid.org/aop>

Volume 49, number 4, July 2021

Color-position symmetry in interacting particle systems	ALEXEI BORODIN AND ALEXEY BUFETOV 1607
External diffusion-limited aggregation on a spanning-tree-weighted random planar map	EWAIN GWYNNE AND JOSHUA PFEFFER 1633
The Tutte embedding of the mated-CRT map converges to Liouville quantum gravity	EWAIN GWYNNE, JASON MILLER AND SCOTT SHEFFIELD 1677
Brownian absolute continuity of the KPZ fixed point with arbitrary initial condition	SOURAV SARKAR AND BÁLINT VIRÁG 1718
Bulk properties of the Airy line ensemble	DUNCAN DAUVERGNE AND BÁLINT VIRÁG 1738
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Nominate for IMS Awards

Carver Award

Nominations are invited for the **Carver Medal**, created by the IMS in honor of Harry C. Carver, for exceptional service specifically to the IMS. Deadline **February 1, 2022**: <https://www.imstat.org/ims-awards/harry-c-carver-medal/>.

IMS Fellows: Nominate a member for **IMS Fellowship** whose research in statistics or probability, or leadership in our communities, is of exceptionally high quality. Deadline **January 31, 2022**: <https://imstat.org/honored-ims-fellows/nominations-for-ims-fellow/>

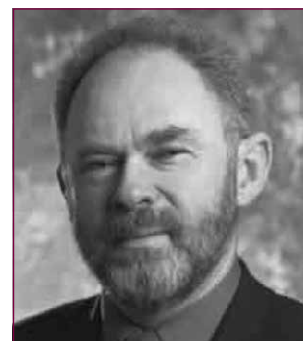
Early-Career Awards

Peter Hall (1951–2016) played a significant role throughout his professional career in mentoring young colleagues at work and through professional society activities. With funds donated by his friends and family, the IMS created the **Peter Gavin Hall Early Career Prize**: <https://www.imstat.org/ims-awards/peter-gavin-hall-ims-early-career-prize/>. Its purpose is to recognize early-career research accomplishments and research promise in statistics, broadly construed. (An early-career researcher is one who received their doctoral degree in one of the eight calendar years preceding the year of nomination, or in the year of nomination—so, for the 2022 prize, that means any of the years 2014–2021. The IMS gives the award committee latitude to consider nominees with extenuating circumstances that may have delayed professional achievements.) Nominations may be made by any member of the IMS, and nominees do not need to be IMS members. The nomination deadline is **December 1, 2021**. The award consists of a plaque, a citation, and a cash honorarium.

Richard Tweedie (1947–2001) played a significant role throughout his career as a mentor. The **Tweedie New Researcher Award**, created in his memory, provides funds for travel to present the **Tweedie New Researcher Invited Lecture** at the IMS New Researchers Conference. Nominations should be received by **December 1, 2021**: see the instructions at <https://imstat.org/ims-awards/tweedie-new-researcher-award/>



Peter Hall



Richard Tweedie

...or apply for an IMS Travel Award

Travel Awards for Grad Students and New Researchers

Applications are open for our two travel awards. The **IMS Hannan Graduate Student Travel Award** funds travel and registration to attend (and possibly present a paper/poster at) an IMS sponsored or co-sponsored meeting. This award is for graduate students (Masters or PhD) in statistics or probability. If you are a New Researcher (awarded your PhD in 2016–21), you should apply for the **IMS New Researcher Travel Award** to fund travel, and possibly other expenses, to present a paper or a poster at an IMS sponsored or co-sponsored meeting. Applicants must be members of IMS, though joining as you apply is allowed (student membership is free and new graduate membership discounted!). The deadline for both is **February 1, 2022**.

See <https://www.imstat.org/ims-awards/ims-hannan-graduate-student-travel-award/> and <https://www.imstat.org/ims-awards/ims-new-researcher-travel-award/>.

Will Eagan, formerly a graduate student at Purdue University, used his 2020 IMS Hannan Graduate Student travel award for JSM 2021, which was (again) a virtual conference. He says, *“I was able to present my dissertation research in my very first SPEED session, in a topic contributed session sponsored by the ASA Scientific and Public Affairs Advisory Committee. One thing I noticed about JSM 2021 versus JSM 2020 was participants were far more technologically savvy. It was common in panels to watch both audience members and panelists post links in the chat box to illustrate the discussion. Another first for me: I served as a JSM docent for first-time attendees; given how large the conference is, I do hope I soothed their first-time jitters! I am looking forward to JSM 2022. Hopefully, we’ll have the pandemic under control so it can be live in Washington, DC. In fact, I am currently organizing a proposed panel for the Invited Session program, partially in response to the Membership Survey results discussed in the August 2021 Bulletin!”*

Will Eagan, 2020 IMS Hannan Graduate Student Travel Award winner
(Will is now Principal Biostatistician at Regeneron Pharmaceuticals.)

Call for invited session proposals for 2022 IMS Annual Meeting in London

The 2022 IMS Annual Meeting will be held in London, UK, June 27–30. We invite proposals for invited sessions in probability and statistics. There are 15 slots in probability and 15 in statistics to be filled as a result of this open call. To propose an invited session, you will need a session title and a short description (maximum 300 characters). You will need to provide details of the session organizer (i.e. you), the chair and four speakers. Each speaker will have 30 minutes, including Q&A.

Session proposals will be judged on importance, novelty, impact and timeliness. In addition, a good session proposal, although containing talks on a common theme, will be diverse in its outlook and participant line-up.

Proposal submission will close on September 15, 2021. To submit your session proposal, please complete the form at <https://www.imsannualmeeting-london2022.com/call-for-proposals>.

ICIAM Olga Taussky-Todd Lecture 2023

The Olga Taussky-Todd Lecture is held every four years at the International Congress on Industrial and Applied Mathematics (ICIAM). This honor is conferred on a woman who has made outstanding contributions in applied mathematics and/or scientific computation.

The lecture is named in tribute to the memory of Olga Taussky-Todd, whose scientific legacy is in both theoretical and applied mathematics, and whose work exemplifies the qualities to be recognized.

The Officers and Board of ICIAM now call for nominations for the Olga Taussky-Todd Lecture, to be given at the ICIAM 2023 congress, to take place in Tokyo, Japan, from August 20 to August 25, 2023.

A nomination will consist of:

- Full name and address of person nominated.
- Web home page if any.
- Justification for nomination (in at most two pages, cite nominator's reason for considering candidate to be deserving, including explanations of the scientific and practical influence of the candidate's work and publications).
- Two to three letters of support from experts in the field (not mandatory), each letter having a maximal length of two pages.
- CV of the nominee.
- Name and contact details of the proposer.

Nominations should be made electronically through the website <https://iciamprizes.org/>.

The deadline for nominations is **December 30th, 2021**.

Please contact ICIAM President Ya-xiang Yuan via president@iciam.org if you have any question regarding the nomination procedure.

ICIAM, the International Council for Industrial and Applied Mathematics, is the world organization for applied and industrial mathematics. Its members (which include the IMS) are mathematical societies based in more than 30 countries. For more information, see the Council's web page at <http://www.iciam.org/>

Observational Studies news

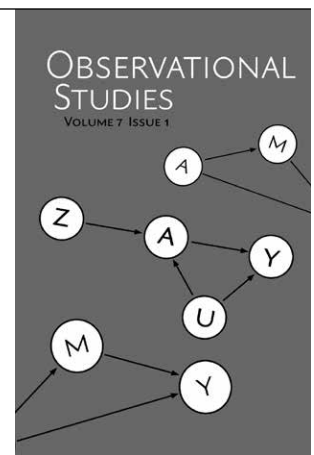
Paul Chase, the journals operations manager for Penn Press Journals, writes: We are excited to announce that *Observational Studies* has partnered with the University of Pennsylvania Press to publish the journal twice per year. We will continue to provide the same level of outstanding scholarship and analysis of the field, while taking advantage of the professional publishing services that the Press can provide.

Please bookmark the new URL, obs.pennpress.org and watch for updates and new issues.

Observational Studies is a peer-reviewed journal that publishes manuscripts on all aspects of observational studies, including, but not limited to, study protocols for observational studies, methodologies for observational studies, descriptions of data sets for observational studies, software for observational studies and analyses of observational studies. For further details, see the journal's aims and scope.

Project MUSE is now hosting Commentaries on Leo Breiman's paper "Statistical Modeling: The Two Cultures" (*Statistical Science*, 2001, 16(3), 199-231) as a Special Issue of *Observational Studies*.

The peer-review submission process will now be online and *Observational Studies* is now accepting submissions. See Author Guidelines at <https://obs.pennpress.org/resources/author-guidelines/> for more information or email the editors at observationalstudies@gmail.com. All manuscripts should be submitted via the Scholastica online submission system, <https://obs.scholasticahq.com/>



Going remote and back again: Lessons learned

Ruobin Gong, Assistant Professor of Statistics at Rutgers University, continues her “Sound The Gong” column with a reflection on what lessons we can, and should learn, from the experiences of teaching and learning online.

Prior to March 2020, taking classes towards a college or graduate degree remotely was anything but the typical way to do things. By June 2021, however, a large number of universities around the world have delivered their classes in some virtual format for more than a year.

It feels otherworldly to recount the steps we took to arrive at this virtual reality that was once merely a virtual possibility. On the first day of the state-wide lockdown of New Jersey, I frantically scrambled to rearrange a midterm exam scheduled for that same evening, worried that some student might drive a long way to campus only to find a locked classroom. Fast forward three semesters, I signed off from the last Zoom session, watching my screen popping a string of clapping-hand emojis and thank-you’s from the chat window, while entertaining the euphoric idea that this might be the last virtual class I’d teach in a little while. Everything in between, however, seems to elude memory.

This is not amnesia. Rather, I blame it on the fact that too few genuine experiences made a mark on my long-term memory. Two years ago, when making my teaching plans for 2020, I had all kinds of exciting ideas about what to do. I wanted to host a reading class with the first-year students, to discuss privacy and data ethics, and to slip some of my own research on Dempster–Shafer theory into the graduate-level class on Bayesian analysis. Those plans were executed, although not in the manner I had hoped. The almighty Zoom is capable of miraculously transcending time zones, dialing in students from China, India, and

South Africa. It also manages to let nearly all my questions, prompts, and jokes fall flat as if chucked into a humorless pit. Over the past year, I assigned grades, both good ones and so-so ones, to four cohorts of students, yet could not remember most of their faces. In a different context, this would have been a sure sign of an indifferent teacher.

I was confused. The enterprise of teaching and learning no longer functions in the way we understood it. In a desperate attempt to salvage a sliver of positivity, I thought of asking both my students and my colleagues in the Rutgers statistics department about their experiences of remote instruction. A questionnaire consisting of two open-ended questions was sent:

1) What do you hate most about remote learning/teaching (for students/faculty respectively), and 2) What do you like most about it? The purpose of the exercise was rather simple: I sought to know whether everyone else felt as vacuous as I did about their year. If there’s any silver lining to this awkward natural experiment, I wanted to uncover it so that we have a basis to hold onto going forward.

A total of 19 students and 20 faculty members responded to the questionnaire, posting the response rates at roughly a third and a half, respectively. When examined side by side, their responses portrayed the two ends of a surprisingly coherent story. The table below tabulates the most frequently mentioned hate/like items, while I take the liberty to share with you some of the central themes.

For both the faculty and the students, an overwhelming majority stated that the single most despicable aspect of remote instruction was the lack of interaction. Most synchronous classes would not mandate students to turn on their cameras or microphones during class. Consequently, far too often the teachers found themselves

speaking to a computer screen full of dark and muted rectangles. To elicit a response to a question became more difficult than ever. Worse, there was no way to gauge whether anything that was said landed successfully with the students. We were deprived of even the simplest kind of visual cue—a nod, a hand gesture, or even a blank stare that otherwise would have been helpful.

The students, arguably, faced a more dreadful challenge that was twofold. On the one hand, most felt that they could not communicate effectively with the teacher. Many indicated that the burden of communication hindered their comprehension of the class material, especially when the teacher walked through delicate matters such as a detailed demonstration of a problem solution. But the more salient adverse impact was that the students were unable to maintain concentration during class, a phenomenon that confirmed some of the faculty’s observations. “Three-hour classes are already difficult,” one student wrote. “Being at home with no accountability, it was very easy to lose focus and miss entire portions of a lecture.” The students also felt helpless in trying to connect with their fellow students. Some were particularly disappointed by the lack of any peers’ presence, as they were used to calibrating their learning progress by observing other students’ reactions in class. A substantial portion of the students surveyed were either freshmen or first-year graduate students. They nose-dived right into the virtual learning environment without ever setting foot on the Rutgers campus. The international students among them spent the past year overseas, participating in class sessions at inconvenient times according to their days. To be deprived of social connections while these students made their transition to a new academic environment can be distressing, and stressful.

The lack of personal touch in the classroom had undesirable consequences on the quality of the learning outcome. The teachers reported difficulty in designing meaningful assessments to accompany virtual instruction. The students, on the other hand, bore the repercussions of the teacher’s struggle. The homework took more effort, class projects felt simultaneously more demanding and more pointless, and grading appeared harsher. At its worst, the unhealthy disconnect between the student and the teacher could brew distrust.

All is not lost, however. The students also expressed delight over a few transformations to the traditional teaching practice. A vast majority rejoiced in the fact that the lecture recordings were made available, making reviews much easier than before. Considering how slippery concentration could be in class, the recording served not merely as a convenience, but as a necessity indeed. The benefits of a recorded lecture went beyond making up for the lost time in class, however. Students learn best at different paces, and some preferred to tackle new material in shorter, 10- to 20-minute chunks rather than the default three-hour long lecture, which was made possible by the recordings.

Another notable improvement over

traditional instruction was that the students didn’t need to commute to campus any longer. This simplification presented a real saving of both time and money, especially for part-time students who juggled their job and their degree at the same time. A few students expressed a special appreciation for virtual office hours. Often, a student might really just have a simple question for their professor. A virtual, low-commitment meeting would encourage them to actually voice those questions.

Last but not least, open-book exams, previously endorsed by only a portion of the advanced or graduate-level classes, were also a student favorite. While it may not be ideal for classes of all sizes at all levels, the open-book format may be fitting for quizzes and small-scale assessments, even after in-person instruction resumes.

The faculty expressed a more reserved attitude towards the benefits of remote instruction. Two of my colleagues simply declared that they liked nothing about remote teaching. Some noted a change of routine in their teaching practice. A more optimized working schedule for preparing asynchronous classes, the use of slides, as well as the myriad of online pedagogical tools to help with anything from software demonstration to automated grading. Some

of these changes made their teaching more organized and purposeful. Interestingly, I could not help but notice from a few of my colleagues’ comments that what they ended up appreciating about remote teaching were those things that the students liked and found useful: recorded lecture videos and online office hours being the two favorites.

The truth is, habits can form faster than we know it. The fully remote means of instruction was once unthinkable, yet is by now widely and proficiently practiced. As universities everywhere prepare for the return to in-person instruction, new challenges—withdrawal symptoms—will emerge too.

We did not spend the gruesome year in our isolated quarters to learn nothing about the future. There is no doubt that in-person communication is an essential ingredient of a high-quality learning experience. At the same time, virtual communication has demonstrated its value in creating a more inclusive and accessible environment. It may be an unremarkable luxury that a student can sit side-by-side with their peers and face-to-face with their teacher, but it is her extraordinary basic right to be aided in her pursuit by all the technological conveniences at our disposal.

	Students	Faculty
The Bad	<ul style="list-style-type: none"> ✗ Lack of interaction with teacher and fellow students ✗ Cannot maintain concentration ✗ Lack of interpersonal empathy (workload, grading) 	<ul style="list-style-type: none"> ✗ Lack of interaction with students ✗ Cannot ascertain comprehension and stimulate communication ✗ Difficulty of assessment
The Good	<ul style="list-style-type: none"> ✓ Lecture recording available ✓ No need to commute (especially for office hours) ✓ Open-book exams 	<ul style="list-style-type: none"> ✓ Organized, purposeful instruction ✓ Students don't need to commute ✓ Aid of online pedagogical software

Table: Top responses from students and faculty to the questions (1) What do you hate most about remote instruction? and (2) What do you like most about it?

OBITUARY: Lai Kow Chan

1940–2020

LAI KOW CHAN, an IMS Fellow with expertise in statistical quality control and a visionary academic leader, died in Hong Kong on December 23, 2020, aged 80.

Lai was born in Hong Kong on November 5, 1940. His first university degree was from Hong Kong Baptist College in 1962, after which he obtained an MA and a PhD in statistics from the University of Western Ontario in 1964 and 1966, respectively. He was then a lecturer at the University of Toronto for one year before returning to Western, where he rose to the rank of Full Professor. He had worked with M.M. Ali for his thesis and, over the next 15 years, contributed regularly to distribution theory and studied both finite- and large-sample properties of estimation methods for various classes of models. He published in top statistics journals such as *Biometrika* and *The Annals of Mathematical Statistics*, but also in more applied venues and actuarial journals.

In 1980, Lai was recruited as Head of the Department of Statistics at the University of Manitoba. This was a turning point in his career. Seeking to unite the group around a common cause, he identified statistical quality control as a research area and invested himself fully in the subject. Under his headship, which lasted 14 years, the department became a center of excellence in quality management. His 1988 article proposing a new process capability index, coauthored by his colleague Smiley Cheng and their joint PhD student Fred Spiring, is one of the most cited papers in the *Journal of Quality Technology*. Over the years, department members gave more than 100 workshops on statistical process control, total quality, and industrial experimental design to local firms, generating funds to support students and research.

While becoming an expert in statistical quality control, Lai helped the Canadian statistical community in many ways, serving on the Board of Directors of the Statistical Society of Canada (1985–87), supporting the Society's 13th Annual Meeting in Winnipeg (1985), serving as Editor-in-Chief of *The Canadian Journal of Statistics* (1992–94), contributing to the creation of the Canada Award for Excellence in Quality, and chairing/sitting on national grant and award selection committees. He also served as a Council member of the International Statistical Institute (ISI).

In 1994, Lai returned home to become Professor and Chair of Applied Statistics and Operational Research at City University of Hong Kong (CUHK). Research-wise, this was perhaps his most fruitful period, supervising many PhD students and coauthoring, notably with Ming-Lu Wu, highly impactful work on quality function deployment.

Under Lai's leadership, the CUHK College of Business rose to the forefront of business education and research. Various new programs were launched and he spearheaded the school's effort in achieving AACSB accreditation in 2005. In this period, Lai was an advisor on statistics teaching material for China's State Statistical Bureau, he sat on the Statistics Advisory Board for the Commissioner for Census and Statistics of the Hong Kong SAR, and he served on the Humanities, Social Sciences and Business Studies Panel of Hong Kong's Research Grants Council.

At the age of 66, Lai joined upper management in the forming years of the Macao University of Science and Technology. He soon became an advisor for the sustainable economic development strategy and the Pearl River Delta Region development



Lai Kow Chan

plan for several departments in the Macao SAR Government. Also noteworthy is his involvement in the construction of economic indices such as the Hong Kong Consumer Satisfaction Index (1998) and the Macao Consumer Confidence Index (2008).

In recognition of his contributions to research and his service towards the development of statistics and total quality in Canada and in China, Lai was elected a member of the ISI in 1979 and he was made a Fellow of several associations, including the ASA (1981), IMS (1985), the American Society for Quality (1990), and the American Association for the Advancement of Science (1991).

In addition to his talents as a scientist and an administrator, Lai was a conscientious and kind-hearted man who cared for people around him, and inspired trust. His level of energy and passion was difficult to match. He drew inspiration from, and strove to emulate, the famous American statistician W. Edwards Deming and Hong Kong's visionary entrepreneur and philanthropist Sir Gordon Wu, who started his engineering studies at the University of Manitoba and received an honorary degree from this institution in 2012.

Lai is survived by his wife Fung-Yee, their children Bertha, David, and Leo, as well as five grandchildren whom he loved to spoil. We were fortunate to have known him. He will be missed dearly but never forgotten.

*Christian Genest, McGill University, and
John F. Brewster, University of Manitoba*

OBITUARY: Arthur Cohen

1933–2021

ARTHUR COHEN, a brilliant applied and mathematical statistician and a wonderful colleague and leader, passed away on July 26, 2021.

Arthur spent his professional career at Rutgers, from 1963 until he traded his title of Distinguished Professor for Emeritus in 2017. A world-renowned leader in decision theory, he was known in the research world for blending dynamic applied statistical expertise with rigorous and creative mathematical skills. Among his colleagues he was also revered for his integrity, geniality, incisiveness, and an unending passion for statistics.

Arthur was born in 1933 and later attended Brooklyn College, where he was captain of the basketball team. One professor there suggested that Arthur might try graduate school in statistics at Columbia University, to which he could commute from home. That bit of serendipity launched his career. Arthur interrupted his graduate studies to spend two years with the Epidemiology Intelligence Service, in what was then the Communicable Disease Center (CDC), as a “disease detective.” After returning to Columbia, Arthur wrote a dissertation under Ted Anderson involving

admissible estimators, a major topic over his career.

Soon after he joined Rutgers, Arthur became department chair. With a long reign as chair followed by other essential roles, he was instrumental in building up Statistics into the leading department it is today, although he once claimed that one thing he loved about Rutgers was that he could pretend the administration didn’t exist and the administration thought he didn’t exist. Arthur was known to be an inspiring and caring teacher. He supervised several students, who themselves are now leaders. In addition to his service at Rutgers, Arthur also provided outstanding service to the statistics profession, including serving as Editor of the *Annals of Statistics*, Co-Editor of the *Journal of Multivariate Analysis*, and Associate Editor of several other journals.

Arthur developed wide ranging and fundamental results in decision theory, admissibility, Bayes procedures, sequential tests, order restricted inference, and multiple testing. One of his long-time collaborators Harold Sackowitz said “His research was always guided by relevance to the area. He preceded Google as a search engine for his breadth of knowledge of people and work



Arthur Cohen

across Statistics.” Among other distinctions, Arthur was honored as a Fellow of the IMS, ASA, and the ISI.

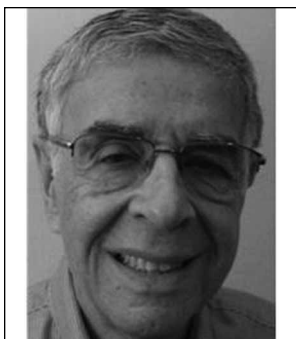
Arthur will be greatly missed for his enormous intellect, kindness, and optimism. He leaves behind his loving wife Anita of 64 years, his devoted children Richmond and Elizabeth, and his cherished grandchildren Genevieve and Troy Arthur.

The Department of Statistics at Rutgers University will establish an Arthur Cohen Lecture as one of the major annual events of the department. The Rutgers flag will fly at half-mast on November 5, 2021, in his memory. A virtual memorial gathering will be held on September 17, 2021, and a celebratory research conference with colleagues, students and family members will be held in Arthur’s honor at Rutgers University on January 14, 2022. [For more information on these, please contact office@stat.rutgers.edu].

*Written respectfully by Arthur’s colleagues
at the Rutgers Statistics Department*

OBITUARY: Charles Joel Stone

1936–2019



Charles (Chuck) Stone

CHARLES (CHUCK) JOEL STONE, emeritus Professor of Statistics at the University of California, Berkeley, died on April 16, 2019, at the age of 82. He was survived by his wife Barbara and two sons (and their families). Chuck received many honors during his career, including a Guggenheim fellowship in 1980. He was a fellow of the IMS and an inaugural fellow of the American Mathematical Society (2012). He was elected to the National Academy of Sciences in 1993. Among other honors, he gave the 1994 IMS Wald Lectures. According to the Mathematics Genealogy Project, Chuck had 14 PhD students and 166 academic descendants.

Chuck graduated from North Hollywood High School in Los Angeles and was an undergraduate at the California Institute of Technology. He received his PhD from Stanford University’s Department of

Continues on page 16

Charles (Chuck) Stone, 1936–2019

Continued from previous page

Mathematics in 1961 under the supervision of Samuel Karlin. Chuck's first academic appointment in 1962 was at the Department of Mathematics at Cornell University; he left for UC Los Angeles (UCLA), in 1964, first as a visitor and then was appointed to the faculty in the Department of Mathematics. He remained at UCLA for 17 years until he departed for the Department of Statistics at UC Berkeley. The culmination of that period was perhaps the 1978 book with his frequent collaborator Sidney Port, *Brownian Motion and Classical Potential Theory*. Three fundamental problems of electrostatics (and, more generally, potential theory) are already distinguishable in the work of Carl Friedrich Gauss in 1840: the Dirichlet–Poisson problem, the equilibrium problem, and the balayage problem. It was realized over a century later that there is an intimate connection between all three topics and the properties of Brownian motion. Frank Knight's review observes, "The book [...] is a straightforward presentation of classical potential theory making full use of the connection with Brownian motion. As far as probability is concerned, the watchword seems to be economy of means. By making skilled use of symmetry, the strong-Feller property, and continuity of path, much of the general methodology of probabilistic potential theory is neatly avoided. What has long been the treasured material of a few experts is thus at last made available to anyone with a course in modern analysis." Chuck and Sidney Port also co-authored a celebrated trilogy of undergraduate books on probability and statistics with Paul Hoel.

In addition to further research into potential theory, other notable work of this period included investigations of local limit theorems, weak convergence of stochastic processes, and renewal theory.

It was during Chuck's time at UCLA that his interests migrated largely to statistics (although a formal Department of Statistics at UCLA was not founded until long after Chuck left). A particular interest was nonparametric statistics, that is, statistics devoid of the usual normal (Gaussian) assumptions. He authored a much-cited discussion paper in *The Annals of Statistics* in 1978, titled "Consistent Nonparametric Regression." This paper grew out of Chuck's wanting to put the popular nearest-neighbor technology on a sound theoretical footing.

Chuck's interest in statistics covered many areas. For example, in the early 1980s he wrote two landmark papers regarding optimal rates of convergence for statistical estimators. His results carefully took into account dependence on the dimensions of spaces in which predictors and outcomes lie, and the derivative being estimated.

A number of Chuck's later efforts concerned log-splines and their applications to regression (including time series) and survival

analysis. Many of the papers in this long series were co-authored. Among the co-authors are former students Charles Kooperberg, Mark Hansen and Young Truong. A summary of that line of inquiry was the subject of Chuck's 1994 Wald Lectures.

During his years in Los Angeles, Chuck consulted for Technology Services Corporation in Santa Monica, along with Leo Breiman, a UCLA colleague, who also later became a UC Berkeley Professor of Statistics. Based on this work, Chuck and Leo co-authored a 1978 technical report, *Parsimonious Binary Classification Trees*, which has since become something of a cult classic. The technical report was published in greatly expanded 1984 book, titled *Classification and Regression Trees*, with Breiman and two other co-authors, Jerome Friedman and Richard Olshen (both of Stanford). This book may be the single item for which Chuck is most remembered. Its algorithms are for "classification," "probability class estimation," and "regression." They, and perhaps especially a computer program for their implementation, became known as CART. One of Chuck's principal contributions to the technical report and to the book was "CART pruning," an intricate scheme for validating the algorithms and enabling them to be computationally feasible with the computers widely available at the time of publication. The use of the graphs associated with mean-square error as it varies with complexity is now standard in many areas. The CART book was the first mathematically and computationally rigorous treatment of approaches which now are commonplace and have found wide application. It has many examples, real and contrived. Some of these examples have become benchmarks for subsequent technologies in the field of Machine Learning. The CART ideas are part of almost every serious statistical curriculum worldwide. There are numerous computer programs, available both freely and commercially, that incorporate extensions of CART.

Chuck's true academic devotion was to his students. He was a committed and much-loved teacher. His philosophy of statistics and many mathematical details are summarized in a single-authored book, titled *An Introduction to Probability and Mathematical Statistics*, that was first published in 2000.

Many former students have attested to Chuck's remarkable counseling during extensive office hours, his intense teaching style, and the care he took to help students whenever possible. While all of us teach, and many of us teach well, we think it fair to say that hardly anyone took the time and expressed more concern for students than did Chuck.

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Condensed slightly from the 2020 obituary by Richard A. Olshen, Peter Bickel and Steven N. Evans at <https://senate.universityofcalifornia.edu/in-memoriam/files/chuck-stone.html>

OBITUARY: S. James Press

1931–2020

S. JAMES (JIM) PRESS, a distinguished professor emeritus of statistics at the University of California, Riverside, passed away November 25, 2020, just shy of his 90th birthday.

The field of statistics has lost one of its greats in the area of Bayesian multivariate analysis. Jim's fundamental research contributions were in multivariate analysis, Bayesian analysis, and cognitive aspects of survey methodology and their applications across a range of disciplines. His early seminal research contributions include the Nerlove–Press models, multivariate stable distributions, and the t -ratio distribution. His three statistics books are classics, and two of them are still available in their second editions: *Applied Multivariate Analysis*; *Bayesian Statistics: Principles, Models, and Applications*; and *Subjective and Objective Bayesian Statistics*. He also co-authored with Judith M. Tanur *The Subjectivity of Scientists and the Bayesian Approach*.

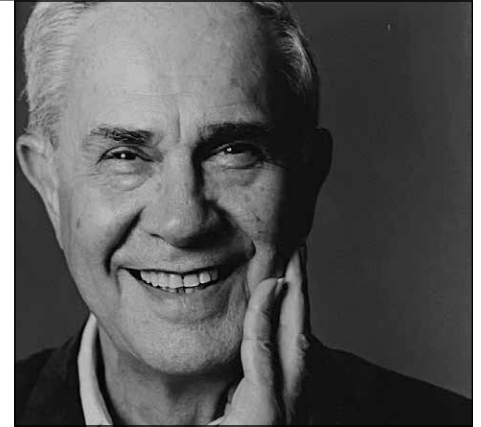
From 1997–1998, he was an NSF/ASA Fellow at the Census Bureau; some of the later applications of his research include image classification and reconstruction and statistical analysis of microarrays.

Jim was born in Brooklyn, New York, on February 4, 1931. A New Yorker by birth, he was a Californian in spirit, and he

and his beloved new wife, Grace, left New York for California in 1951, never to return. On the West Coast, they started a family and Jim embarked on a successful career, first in the aerospace industry and then in statistics.

In Los Angeles, Jim worked for Northrop and then Douglas Aircraft, but his insatiable desire to learn led him back to school and a change in careers after 10 years. He enrolled in night school at the University of Southern California, earning a master's degree in mathematics. He then went on to the PhD program in statistics at Stanford University under the direction of Ingram Olkin, graduating in 1964.

Jim's first academic job was at the business school at The University of Chicago, where he taught until 1974. He then moved with Grace and their growing family—now three young children—to the University of British Columbia, where he could escape Chicago's brutal winters and strike out on his own intellectually. Jim was offered the opportunity to return to his beloved (and warm) Southern California to be chair of statistics at the University of California, Riverside, after four years in Canada. There, he worked with his colleagues to shape the department and happily spent the rest of his career until his retirement in 2005 with the



Jim Press

rank of distinguished professor.

Jim also consulted for most of his career with the Rand Corporation in Santa Monica, CA, supplementing his academic work with numerous applied projects.

Jim was an elected fellow of IMS, ASA and the American Association for the Advancement of Science, and was also an elected member of the ISI. Jim spearheaded and co-founded with Arnold Zellner the ASA Section on Bayesian Statistical Science.

In addition to statistics and his family, Jim's great love was travel. The stories of his explorations with Grace through the Amazon jungle, all across Africa, and throughout Asia are now family lore. Jim loved Riverside—the desert foliage, the orange groves, and the enveloping heat—as well as the university that was his home for 27 years. He is survived by Grace, their three children (Julie, Jamie, and Daryl), and their six grandchildren.

*Written by Julie Press and Subir Ghosh.
First published in Amstat News, July 2021.*

Annals of Applied Statistics paper wins SPES Award

Ming Li, who is the chair of the committee for the ASA's Statistics in Physical Engineering Sciences (SPES) Award, writes:

We received seven nominations for the SPES Award this year. The SPES Award Committee reviewed the nomination letters and support materials and chose the winner for this year to be **Jonathan Stallrich** (North Carolina State University), **Nazmul Islam** (UnitedHealth Group), **Ana-Maria Staicu** (North Carolina State University), **Dustin Crouch** (University of Tennessee), **Lizhi Pan** (Tianjin University) and **He Huang** (North Carolina State University) for their joint work to develop a prosthesis controller that is more directly tied to known biomechanical movement models that require data from a sparse set of EMG sensors. Their paper, entitled "Optimal EMG Placement for a Robotic Prosthesis Controller with Sequential, Adaptive Functional Estimation (SAFE)", was published last year in *Annals of Applied Statistics* (Volume 14, No. 3, page 1164–1181). Congratulation to our SPES Award Winners!

Treasurer's Report 2020

Introduction

This report details membership and subscription data for the calendar year end 2020. The 2020 fiscal year-end audit report will be posted online separately in the Fall of 2021, after the auditors have completed the annual process.

In 2020, the total number of IMS members increased. Subscriptions by institutions decreased this past year by 1% overall, but increased by 1% for IMS core journals. The financial status of the Institute continues to be stable and strong, and actions are in place to ensure its long-term stability. As of 2020, the IMS did not have negative effects to membership, subscriptions, or financials due to COVID-19. We continue to keep a close eye on these items in 2021 as many effects may not be felt until this year.

Details of the events of the past year, and membership, subscription and sales data, are given below.

Publications

The following is a list of all current IMS core, co-sponsored, supported and affiliated journals:

IMS Core Print/Electronic Publications

Annals of Applied Probability; Annals of Probability; Annals of Applied Statistics; Annals of Statistics; Statistical Science; IMS Monographs; IMS Textbooks; IMS Bulletin

Co-sponsored Print/Electronic Publications

Electronic Communications in Probability; Electronic Journal of Probability; Electronic Journal of Statistics; Journal of Computational and Graphical Statistics; NSF-CBMS Series in Probability and Statistics; Probability Surveys; Statistics Surveys

Supported Publications

ALEA: the Latin American Journal of Probability and Mathematical Statistics; Annales de l'Institut Henri Poincaré (B); Bayesian Analysis; Bernoulli journal; Bernoulli News; Brazilian Journal of Probability and Statistics

Affiliated Publications

Observational Studies; Probability and Mathematical Statistics; Stochastic Systems

Membership Data

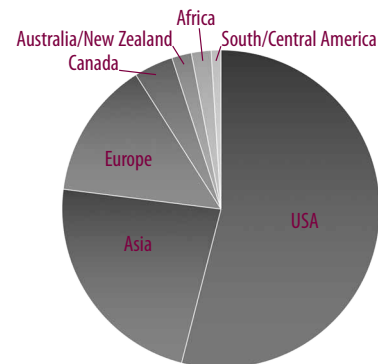
Table 1 presents the membership data back to 2016. Total individual paid membership in the Institute as of December 31, 2020 increased by 17% from December 31, 2019. This is largely due to an increase in student (non-paying) members. Paid membership decreased by 5%. The total number of paid IMS members in 2020 was 2,651. The IMS had its peak in paid membership in 2008 with 3,156 members. The IMS Executive Committee continues to look for ways to address our membership numbers.

TABLE 1: Membership, by Calendar Year

	2016	2017	2018	2019	2020	% change
Regular	1,565	1,447	1,384	1,397	1,397	0.0%
Life/Retired Life	541	563	613	617	614	-0.5%
Reduced Country/Retired/IMS China	337	370	331	704	577	-18.0%
New Graduate	113	213	76	70	63	-10.0%
Student	1,094	1,022	828	722	1,488	100.6%
Total	3,650	3,615	3,217	3,510	4,099	16.8%
Total excluding free members (students)	2,556	2,593	2,389	2,788	2,651	-4.9%

Geographic Distribution of Members.

The IMS membership is currently distributed as follows (see pie chart, right): 54% United States; 18% Asia; 14% Europe; 4% Canada; 2% Australia and New Zealand; 2% Africa; 1% South America, Mexico and the Caribbean.



Subscription Data

Selection of Journals by Members:

Print subscriptions by members continued to decrease in 2020, as expected, because members are opting to reduce their use of print while enjoying free electronic access to all journals. Members are charged actual cost for print copies of journals, so there is no net loss or gain to the bottom line from changes in print subscriptions by members.

Table 2 shows the current selection of print journals by members.

TABLE 2: Member subscriptions, by calendar year

PRINT (paid)	2016	2017	2018	2019	2020	% change
<i>Annals of Applied Probability</i>	68	61	54	46	30	-34.8%
<i>Annals of Probability</i>	75	68	57	50	34	-32.0%
<i>Annals of Applied Statistics</i>	107	91	87	83	49	-41.0%
<i>Annals of Statistics</i>	220	208	191	174	125	-28.2%
<i>Statistical Science</i>	386	382	387	325	226	-30.5%
Total	856	810	776	678	464	-31.6%

Continues on page 19

Joint Memberships: The IMS offers joint membership opportunities with: the Association for Computing Machinery (ACM), Applied Probability Society/INFORMS (APS/INFORMS), Bernoulli Society (BS), Indian Society for Probability and Statistics (ISPS), International Chinese Statistical Association (ICSA), International Society for Bayesian Analysis (ISBA), International Statistical Institute + Bernoulli Society (ISI/BS), and New England Statistical Society (NESS).

Institutional Subscription Data: Table 3 presents comparative subscription data for institutions, to each of our scientific journals for 2020 and previous years. Almost all journals experienced slight subscription increases in 2020. Overall, institutional subscriptions decreased by 1.2%, mostly due to decreases in subscriptions to the *IMS Bulletin* which is free online. The increase to IMS core journals, specifically, was 1.2%. We continue to see usage of our bundled offerings, which are discounted on the whole. Approximately 60% of the institutional subscribers to IMS journals are in the USA and Canada, with the rest distributed throughout the world.

Book Sales Data

Table 4 presents sales data for IMS book

TABLE 3: Institutional paid subscriptions, by calendar year

PRINT	2016	2017	2018	2019	2020	% change
<i>Annals of Applied Probability</i>	580	558	537	519	527	1.5%
<i>Annals of Probability</i>	769	735	706	673	677	0.6%
<i>Annals of Applied Statistics</i>	349	341	341	343	358	4.4%
<i>Annals of Statistics</i>	962	929	906	861	855	-0.7%
<i>Statistical Science</i>	708	671	666	629	644	2.4%
<i>IMS Bulletin</i>	90	75	71	70	39	-44.3%
<i>Annals Inst Henri Poincaré (B)</i> ^s	304	300	289	288	292	1.4%
<i>Bernoulli</i> ^s	298	303	298	294	312	6.1%
<i>Brazilian J Probab Stat</i> ^s	135	134	132	142	162	14.1%
Total	4,377	4,046	3,946	3,819	3,866	1.2%
Total IMS journals	3,368	3,234	3,156	3,025	3,061	1.2%

^s denotes IMS-supported journals.

TABLE 4: Total sales of IMS Monographs and IMS Textbooks

Book series	2016	2017	2018	2019	2020	TOTAL
<i>IMS Monographs</i> (6 vols to end of 2020)	4,115	4,214	2,414	1,253	1,443	17,667
<i>IMS Textbooks</i> (14 vols to end of 2020)	777	630	1,018	1,940	975	9,779
Total sales	4,892	4,844	3,432	3,193	2,418	27,446

series. In 2010, the IMS published its first volumes in a cooperative arrangement with Cambridge University Press to publish two series, *IMS Monographs* and *IMS Textbooks*. Sales of these volumes are going very well.

Financial and Audit Report

The fiscal year ended December 31, 2020. The external audit of the IMS will be completed shortly; the full auditor’s report will then be posted on the IMS website at

<https://www.imstat.org/council-reports-and-minutes/>.

Conclusion

The IMS Executive Committee has reviewed all data in this report. A long-term financial plan is already in place and the **IMS continues to be strong and stable financially.**

Zhengjun Zhang
IMS Treasurer

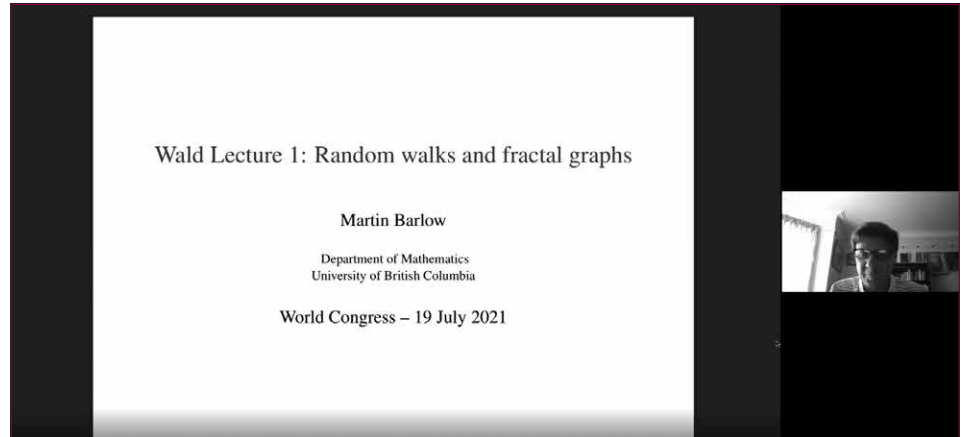


The 2021–22 IMS Executive Committee: in the top row, Past-President Regina Liu, President Krzysztof (Chris) Burdzy, President-Elect Peter Bühlmann, and in the bottom row, Executive Secretary Edsel Peña, Program Secretary Annie Qu, and IMS Treasurer Zhengjun Zhang

Report: Bernoulli–IMS 10th World Congress in Probability and Statistics

The Bernoulli-IMS 10th World Congress in Probability and Statistics, jointly sponsored by the Bernoulli Society (BS) and the Institute of Mathematical Statistics (IMS), took place virtually at the Seoul National University, Korea from July 13 to 19, 2021. Scientific Program Committee chair Siva Athreya (Indian Statistical Institute) and Local Organizing Committee chair Hee-Seok Oh (Seoul National University) write: The 10th World Congress was originally scheduled to be held in August 2020 but was postponed by a year due to the COVID-19 pandemic. In March 2021, it was then decided to host it virtually and <https://wc2021.info/> was set up as the virtual host site for all talks (videos/slides) alongside <https://www.wc2020.org/> the original site of the congress.

The program featured 15 main speakers. Nine of these were named lectures sponsored by the two societies. They were: Kolmogorov Lecture **Persi Diaconis** (Stanford University); Bernoulli Lecture **Alison Etheridge** (University of Oxford); Lévy Lecture **Massimiliano Gubinelli** (University of Bonn); Laplace Lecture **Tony Cai** (University of Pennsylvania); Tukey Lecture **Sara van de Geer** (ETH Zurich); Wald Lectures **Martin Barlow** (University of British Columbia); Blackwell Lecture **Gabor Lugosi** (ICREA & Pompeu Fabra University); Doob Lecture **Nicolas Curien** (Paris-Saclay University); Schramm Lecture **Omer Angel** (University of British Columbia). There were five IMS Medallion Lectures. These were given by: **G rard Ben Arous** (New York University); **Andrea Montanari** (Stanford University); **Elchanan Mossel** (MIT); **Laurent Saloff-Coste** (Cornell



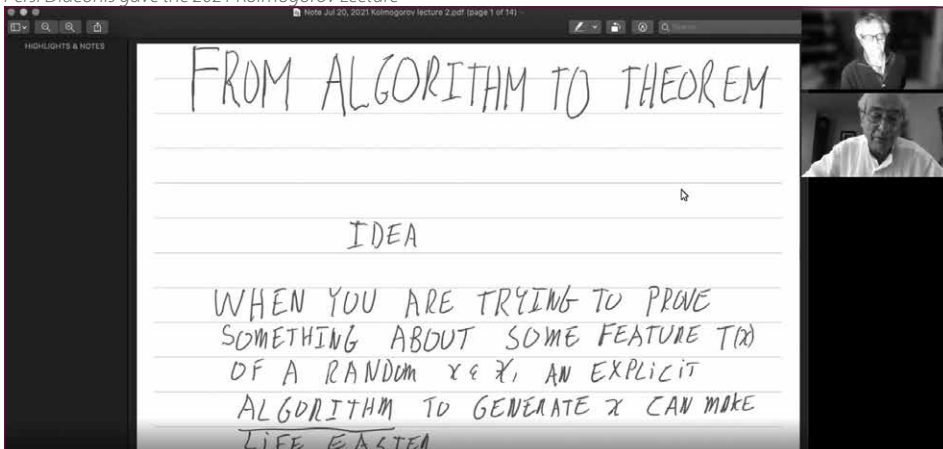
The 2021 IMS Wald Lectures were given by Martin Barlow

University); **Daniela Witten** (University of Washington). There was one public lecture and it was delivered by **Young-Han Kim** (UCSD and Gauss Labs Inc). **Susan Murphy** (past President of IMS) gave the IMS presidential address. **Claudia Kl ppelberg** (past President of BS) gave the closing remarks in the last session of the Congress.

There were 41 invited sessions, of which 36 were done by individual session organizers, two sessions organised by Korean Statistical Society, two sessions devoted to young researchers (the Bernoulli Society New Researcher Award Session and the IMS Lawrence D. Brown PhD Student Award Session), and the Bernoulli Paper Prize Session. In addition to these, there were 30 organized contributed sessions, 35 individual contributed talk sessions, and five poster sessions.

There were 755 registered participants from 41 countries. All invited session, contributed session and contributed talk speakers pre-recorded their talks and provided slides which were updated to the website. The videos of the live sessions, and of the 15 named and live lectures given by the speakers, were also uploaded to the website. The live sessions were well attended and there were over 11,000 views of the videos on the conference website (counting multiplicities), making it a very successful meeting. These, we hope, will be valuable resource as they will be hosted on the website for another year.

Persi Diaconis gave the 2021 Kolmogorov Lecture



IMS meetings around the world

Joint Statistical Meetings: 2021–2026

2022 Joint Statistical Meetings

August 6–11, 2022. Washington DC

[w https://ww2.amstat.org/meetings/jsm/2022/](https://ww2.amstat.org/meetings/jsm/2022/)

Invited Proposal Submission: July 21 – September 8, 2021

To submit an invited session proposal, you will need the following: session type (invited); session subtype (paper or panel); sponsor (outside organization, ASA Committee, ASA Section, sponsoring society, ASA Journal); session title and description. For the session description, please provide any of the following information: Short description of session, including focus, content, timeliness, and appeal; List of invited speakers/panelists, including affiliations and email addresses for each and tentative title for each presentation; Format of session (e.g., chair, three speakers, and discussant); Session organizer, including affiliation and email address; Session chair, including affiliation and email address; Discussant (if any), including affiliation and email address.

Continuing Education Proposal Submission: July 21 – September 30, 2021

Topic-Contributed Proposal Submission: November 11 – December 9, 2021

Contributed Abstract Submission: December 1, 2021 – February 1, 2022



IMS sponsored meetings: JSM dates for 2023–2026

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

Second Workshop: Emerging Data Science Methods for Complex Biomedical and Cyber Data

NEW

October 14–15, 2021. Augusta University, Augusta, Georgia

[w https://www.augusta.edu/mcg/dphs/workshop2/](https://www.augusta.edu/mcg/dphs/workshop2/)

The workshop features several eminent speakers who are pioneers in the fields of data science including big data analytics. The workshop aims to foster the collaborative research between data science/statistics and other disciplinary science for the purpose of meeting the very hardest and most important data and model-driven scientific challenges, and for enhancing the much needed skills of the next generation workforce.

The Workshop participants will learn statistical and data science methods to handle the enormously complex biomedical and cyber science data, and help them develop analytical thinking, statistical reasoning, communication skills and creativity.

2022 IMS Annual Meeting

UPDATED

June 27–30, 2022. London, UK

[w www.imsannualmeeting-london2022.com](http://www.imsannualmeeting-london2022.com)

CALL FOR INVITED SESSION

PROPOSALS: see website for details.

Mark your calendars for the 2022 IMS Annual Meeting. Held in London immediately before COLT, with extra one-day workshop planned [see announcement, right] between the two meetings. Program and Local Chair: Qiwei Yao.

2022 IMS–COLT Joint Workshop

July 1, 2022. London, UK

[w https://bguedj.github.io/colt-ims-2022.github.io/](https://bguedj.github.io/colt-ims-2022.github.io/)

The 2022 IMS Annual Meeting [see left] will be immediately followed by the first IMS–COLT joint workshop, a one-day meeting in a hybrid format (on-site in central London, and online), linking the IMS and COLT communities of researchers. (COLT is the annual Conference on Learning Theory, and will take place in 2022 immediately after this IMS–COLT workshop day.)

Committee: Benjamin Guedj (chair), Peter Grünwald, Susan Murphy.

At a glance:

forthcoming
IMS Annual
Meeting and
JSM dates

2022

IMS Annual Meeting:

London, UK, June
27–30, 2022

JSM: Washington
DC, August 6–11,
2022

2023

IMS Annual Meeting

@ JSM: Toronto,
August 5–10,
2023

2024

IMS Annual Meeting/

11th World Congress:
Bochum, Germany,
August 12–16,
2024

JSM: Portland, OR,
August 3–8, 2024

2025

IMS Annual Meeting @

JSM: Nashville, TN,
USA, August 2–7,
2025

2026

IMS Annual Meeting:

TBD

More IMS meetings around the world

Stochastic Networks



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

[w https://sites.northwestern.edu/snc2022/](https://sites.northwestern.edu/snc2022/) Stochastic networks is a multifaceted area of research concerned with the modeling, stability, control, performance, approximation, and design of stochastic networks. It gives rise to challenging and subtle mathematical problems, whose solution often requires a combination of ideas and techniques from several branches of mathematics, including probability theory, stochastic processes, analysis, optimization, algorithms, combinatorics, and graph theory. Research in this area is strongly motivated by applications in diverse domains, ranging from telecommunications and manufacturing to service operations, biological and social networks, revenue management, and health care. The conference series, initiated in 1987 and held biennially, is a major forum for researchers to learn of the latest developments and new research directions in stochastic networks.

YoungStatS Webinar series

Concentration Inequalities in Machine Learning

September 15, 2021, via Zoom

[w https://youngstats.github.io/post/2021/06/30/concentration-inequalities-in-machine-learning/](https://youngstats.github.io/post/2021/06/30/concentration-inequalities-in-machine-learning/) Selected young European researchers active in probability and machine learning will present their recent contributions. Speakers: Antoine Marchina (Université de Paris) and Geoffrey Chinot (ETH Zurich). Discussant: Gábor Lugosi.

The Myles Hollander Distinguished Lecture

September 24, 2021

Tallahassee, FL, USA and via Zoom

[w http://stat.fsu.edu/HollanderLecture](http://stat.fsu.edu/HollanderLecture) Susan Murphy from Harvard will present this year's Lecture, titled, "*We used a Bandit Algorithm to Personalize But Did It Work?*"

One World ABC Seminar: Ongoing and online

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

The One World Approximate Bayesian Computation (ABC) Seminars are fortnightly seminars that take place via Zoom on Thursdays at 11:30am, UK time. The idea is to gather members and disseminate results and innovation during these weeks and months under lockdown. Register to receive the webinar link via email. The organizers welcome proposals for future talks. This webinar is part of the larger One World seminar initiative [see below].

One World Probability Seminar (OWPS): Ongoing and online

[w https://www.owprobability.org/one-world-probability-seminar/future-seminars](https://www.owprobability.org/one-world-probability-seminar/future-seminars)

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



IMS sponsored meeting

2022 ENAR meeting:

March 27–30, 2022. Houston, TX, USA

[w https://enar.org/meetings/future.cfm](https://enar.org/meetings/future.cfm)

2023 ENAR meeting:

March 22–25, 2023. Nashville, TN, USA

[w https://enar.org/meetings/future.cfm](https://enar.org/meetings/future.cfm)

Frontier Probability Days

DECEMBER 2021, Las Vegas, Nevada

[w http://lechen.faculty.unlv.edu/FPD20/](http://lechen.faculty.unlv.edu/FPD20/)

The conference has been rescheduled again, from May 16–18, to the end of 2021.

The exact dates will be determined soon.

Registration will be open until Oct 16,

2021.

IMS annual meeting

Bernoulli–IMS 11th

World Congress in

Probability and

Statistics and 2024

IMS Annual Meeting

August 12–16, 2024,

Ruhr-University

Bochum, Germany

[w TBC](#)

Seminar on Stochastic Processes (SSP) 2022

March 17–19, 2022

Lehigh University, Bethlehem, PA, USA

[w https://wordpress.lehigh.edu/ssp2021/](https://wordpress.lehigh.edu/ssp2021/)

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

Statistics in the Big Data Era

June 1–3, 2022

UC Berkeley, CA, USA

[w https://simons.berkeley.edu/workshops/statistics-big-data-era](https://simons.berkeley.edu/workshops/statistics-big-data-era)

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

IMS Asia Pacific Rim Meeting 2022

January 4–7, 2022, Melbourne, Australia

[w http://ims-aprm2021.com/](http://ims-aprm2021.com/)

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

Other meetings around the world

22nd European Young Statisticians Meeting September 6–10, 2021

Online

[w https://www.eysm2021.panteion.gr/](https://www.eysm2021.panteion.gr/)

International Conference on Robust Statistics

September 20–24, 2021

Hybrid format: Vienna, Austria, and online

[w http://cstat.tuwien.ac.at/filz/icors2020/](http://cstat.tuwien.ac.at/filz/icors2020/)

The conference will be held as a hybrid meeting (you can either come in person or attend virtually) in Vienna, Austria.

Keynote speakers: Jianqing Fan, Princeton University, USA, and Peter Rousseeuw, KU Leuven, Belgium

International Symposium on Nonparametric Statistics, ISNPS2022

June 14–18, 2022

Paphos, Cyprus

[w http://cyprusconferences.org/isnps2022/](http://cyprusconferences.org/isnps2022/)

Abstract submission is open now.

Registration will open soon.

23rd Conference of the Romanian Society of Probability and Statistics

June 20–23, 2022

Timisoara, Romania

[w https://spsr.ase.ro/conferinta-nationala-spsr/](https://spsr.ase.ro/conferinta-nationala-spsr/)

Details coming to website soon.

São Paulo School of advanced science on singular stochastic partial differential equa- tions and their applications

August 2–13, 2022

Campinas, Brazil

[w https://www.ime.unicamp.br/spas2022/](https://www.ime.unicamp.br/spas2022/)

This school is divided into two parts. In the first week there will be two introductory mini courses that lay the foundations for the courses of the second week. In the latter ones newly developed theories and their latest developments will be taught. To round up the program there will be further invited talks, poster sessions and a visit to the LNLS laboratories, the Synchrotron light laboratories at Campinas.

Applications open now

The Biomedical Data Science Innovation Lab at University of Virginia is seeking applications for the 2021–22 Lab: **Ethical Challenges of AI in Biomedicine**. This program is designed to foster the development of multidisciplinary teams and tackle the challenges of ethically working with data-types in support of AI systems. It is anticipated that teams formed during the event will result in new peer-reviewed publications or NIH/NSF grant proposals to further develop original research project ideas. *We are inviting US-based researchers at the late-stage postdoctoral and early-stage junior faculty level working in the quantitative and data sciences and the biomedical fields to apply to this free, innovative academic workshop program.*

See <http://innovation.lab.virginia.edu/>
We will be accepting applications on a rolling basis until January 31, 2022.

Employment Opportunities

Austria: Klosterneuburg

Institute of Science and Technology Austria

Assistant Professor (tenure-track) and Professor positions in Data Science
<https://jobs.imstat.org/job//58347632>

China: Shanghai

NYU Shanghai

Tenured/Tenure-Track Faculty Positions, Operations/Business Analytics
<https://jobs.imstat.org/job//58069519>

Hong Kong

Hong Kong Baptist University

Professor / Associate Professor / Assistant Professor
<https://jobs.imstat.org/job//57753622>

Hong Kong

The University of Hong Kong

Tenure-Track Professor/Associate Professor/ Assistant Professor
<https://jobs.imstat.org/job//57877822>

Singapore

National Institute of Education

Assistant Professor/Associate Professor (in the area of Statistics)
<https://jobs.imstat.org/job//58080741>

Taiwan: Taipei City

Institute of Statistical Science, Academia Sinica, Taiwan

Tenure-Track Faculty Positions
<https://jobs.imstat.org/job//54387703>

United Kingdom: Bristol

University of Bristol

Chair in Statistical Science
<https://jobs.imstat.org/job//57854294>

United Kingdom: Bristol

University of Bristol

Lecturer/Senior Lecturer/Associate Professor in Statistical Science
<https://jobs.imstat.org/job//58064374>

United States: Hayward & Concord, CA

California State University East Bay

Assistant Professor of Statistics and Biostatistics, Tenure-Track Faculty
<https://jobs.imstat.org/job//58044922>

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United States: Washington, DC

Central Intelligence Agency

Economic Analyst

<https://jobs.imstat.org/job//57919517>

United States: Bloomington, IN

IU School of Public Health

Dept. of EOH Assistant, Associate, or Full Professor

<https://jobs.imstat.org/job//58285981>

United States: Cambridge, MA

Harvard University Department of Statistics

Assistant Professor of Statistics

<https://jobs.imstat.org/job//58266385>

United States: Ann Arbor, MI

University of Michigan

Tenure-Track Assistant Professor

<https://jobs.imstat.org/job//58033492>

United States: Minneapolis, MN

University of Minnesota, School of Statistics

Tenure Track Assistant Professor

<https://jobs.imstat.org/job//58348246>

United States: Philadelphia, PA

University of Pennsylvania, Wharton Department of Statistics and Data Science

Assistant Professor of Statistics and Data Science

<https://jobs.imstat.org/job//58178679>

United States: Brookings, SD

South Dakota State University

Assistant/Associate Professor - Statistics

<https://jobs.imstat.org/job//58358350>

United States: College Station, TX

Texas A&M University, Department of Statistics

Faculty Positions Available

<https://jobs.imstat.org/job//58348014>

United States: Seattle, WA

Fred Hutchinson Cancer Research Center

Faculty Position in Biostatistics

<https://jobs.imstat.org/job//58289156>

Taiwan: Taipei City

Institute of Statistical Science, Academia Sinica, Taiwan

Tenure-Track Faculty Positions

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

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

Dr. I-Ping Tu

Chair of the Search Committee

Institute of Statistical Science, Academia Sinica




128 Sec. 2 Academia Road, Taipei 11529, Taiwan, R.O.C.

Fax: +886-2-27886833

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

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

International Calendar of Statistical Events



IMS meetings are highlighted in maroon with the  logo, and new or updated entries have the  or  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

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


  **One World ABC Seminar**
w <https://warwick.ac.uk/fac/sci/statistics/news/upcoming-seminars/abcworldseminar>

  **One World Probability Seminar**
w <https://www.owprobability.org/one-world-probability-seminar>

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

September 2021

September 6–9: Manchester, UK. **RSS 2021 International Conference** **w** <https://rss.org.uk/training-events/conference2021/>

 September 6–10: online. **22nd European Young Statisticians Meeting** **w** <https://www.eysm2021.panteion.gr/>


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/>


 September 15: **ONLINE YoungStatS Webinar series: Concentration Inequalities in Machine Learning** (via Zoom) **w** <https://youngstats.github.io/post/2021/06/30/>

[concentration-inequalities-in-machine-learning/](https://www.imstat.org/concentration-inequalities-in-machine-learning/)

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

September 20–22: **ONLINE. 17th Applied Statistics Conference** **w** <https://stat-d.si/applied-statistics-conference/as2021/>

 September 20–24: hybrid (Vienna and online). **International Conference on Robust Statistics** **w** <http://cstat.tuwien.ac.at/filz/icors2020/>

 September 24: Tallahassee, FL, USA and via Zoom. **The Myles Hollander Distinguished Lecture: Susan Murphy**
w <http://stat.fsu.edu/HollanderLecture>


December 2021

 Dates TBC: Las Vegas, USA. **Frontier Probability Days** (rearranged from May 2021)
w <http://lechen.faculty.unlv.edu/FPD20/>

January 2022

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

March 2022

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

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

May 2022


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


Image: freepik.com/vwialakte




International Calendar *continued*

June 2022

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

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

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

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

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


July 2022

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

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

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

August 2022

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

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

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

July 2023

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

August 2023

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

August 2024

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

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

August 2025

 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

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

Are we missing something? If you know of any statistics or probability meetings which aren't listed here, please let us know.

You can email the details to Elyse Gustafson at ims@imstat.org, or you can submit the details yourself at <https://www.imstat.org/ims-meeting-form/>

We'll list them here in the Bulletin, and on the IMS website too, at imstat.org/meetings-calendar/



Membership and Subscription Information

Journals

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

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Each individual member receives the *IMS Bulletin* (print and/or electronic) and may elect to receive one or more of the five scientific journals. Members pay annual dues of \$105. An additional \$110 is added to the dues of members for each scientific journal selected (\$70 for *Stat Sci*). **Reduced membership dues** are available to full-time students, new graduates, permanent residents of countries designated by the IMS Council, and retired members.

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Subscriptions are available on a calendar-year basis. **Individual subscriptions** are for the personal use of the subscriber and must be in the name of, paid directly by, and mailed to an individual. Individual subscriptions for 2021 are available to *The Annals of Applied Probability* (\$225), *The Annals of Applied Statistics* (\$225), *The Annals of Probability* (\$225), *The Annals of Statistics* (\$225), *Statistical Science* (\$185), and *IMS Bulletin* (\$115). **General subscriptions** are for libraries, institutions, and any multiple-readership use. Institutional subscriptions for 2021 are available to *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Probability*, and *The Annals of Statistics* (each title \$525 online only / \$618 print+online), *Statistical Science* (\$301/\$352), and *IMS Bulletin* (\$146 print). Airmail delivery is no longer offered.

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

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

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

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**October/
November
2021**

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