

December 2021

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[imstat.org/news](https://imstat.org/news)



## New conference on statistics and data science

### 2022 IMS International Conference on Statistics and Data Science (ICSIDS)

December 13–16, 2022, Florence, Italy

The new IMS Program Secretary Annie Qu is pleased to announce a new IMS-sponsored conference series:

In response to the call from the 2021 IMS Survey report to expand membership to include emerging areas of data science, underrepresented groups and from regions outside of North America, the IMS Council has just approved the launch of an annual IMS International Conference on Statistics and Data Science (ICSIDS).

The first ICSIDS is to be held in Florence, Italy, from December 13–16, 2022.

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

The conference will consist of plenary sessions, and about 50 invited, contributed and poster sessions. **Young researchers are particularly encouraged to participate**, as a portion of the invited sessions will be designated for young researchers.

The website for the 2022 ICSIDS is <https://sites.google.com/view/icsids2022>, with details and more information to follow soon.

Save the date and see you in Florence in December 2022!



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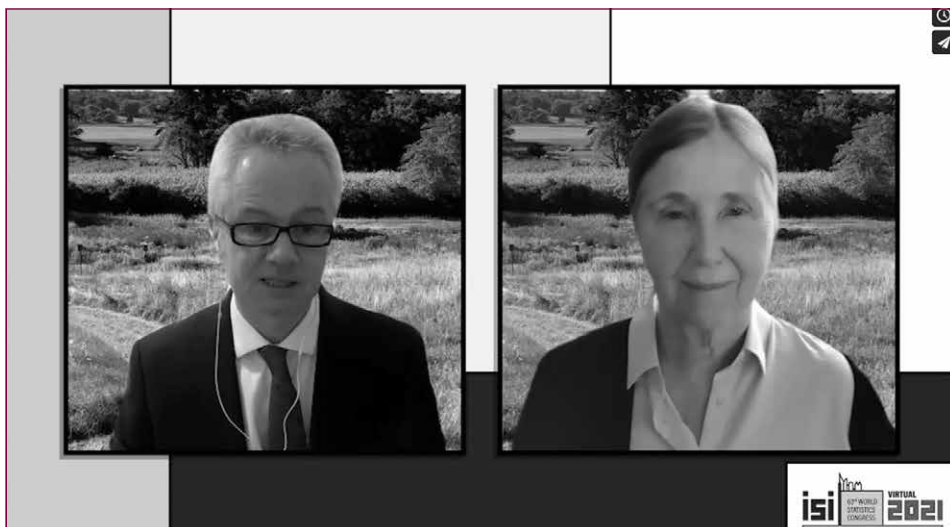
## IMS Members' News

### Nan Laird receives International Prize in Statistics at ISI Virtual World Congress

As we announced in the April/May 2021 issue, the 2021 International Prize in Statistics was awarded to US biostatistician **Nan Laird**, Harvey V. Fineberg Professor of Biostatistics (Emerita) at Harvard T.H. Chan School of Public Health, in recognition of her work on powerful methods that have made possible the analysis of complex longitudinal studies. Laird received the award, and accompanying \$80,000, at the ISI Virtual World Congress in July, from Guy Nason, who chairs the International Prize in Statistics Foundation.

In the award ceremony, Laird said she was honored to receive the prize, and grateful to the five statistical societies who created the award [ASA, IMS, IBS, ISI and RSS: see [statprize.org](http://statprize.org)], and to her many colleagues and friends who helped to make the award happen—notably Jim Ware, without whom, she said, the work on longitudinal studies would not have happened. She was “especially grateful” that her work was “recognized for having advanced public welfare and improved the quality of modern life,” adding, “I believe that statisticians touch the lives of all of us [...] because of our many, many contributions—often behind the scenes—to our understanding of science, especially the social sciences, health and medicine. I am delighted to see that our profession has taken this step to improve the visibility of statistics in society.” The

You can watch the video of the presentation of the Prize, together with Nan Laird's International Prize in Statistics 2021 Lecture, *Contributions to Longitudinal Studies*, at <https://www.isi-web.org/news-featured/56-world-statistics-congress-wsc/20698-highlights-from-the-isi-wsc-2021>.



Guy Nason [left] presented the International Prize in Statistics certificate to Nan Laird

### Kerrie Mengersen delivers ISI President's Invited Keynote at ISI Virtual World Congress

Staying with the ISI Virtual World Congress [see above], you can also view the video of **Kerrie Mengersen's** ISI President's Invited Keynote Lecture, *The Origami of Data Science*. Kerrie Mengersen is a Distinguished Professor of Statistics at Queensland University of Technology in Brisbane, Australia, and the ISI Vice-President (2021–2025). You can watch the video of Mengersen's lecture at <https://www.isi-web.org/news-featured/56-world-statistics-congress-wsc/20698-highlights-from-the-isi-wsc-2021>.

### ISBA Savage Award for Tommaso Rigon

The International Society for Bayesian Analysis (ISBA) Savage Award, named in honor of Leonard J. “Jimmie” Savage [pictured right], is bestowed each year on two outstanding doctoral dissertations in Bayesian econometrics and statistics, one each in Theory & Methods and Applied Methodology. The winner of the Theory & Methods section for 2020 was IMS member **Tommaso Rigon**, Assistant Professor at University of Milano-Bicocca, for his thesis entitled *Finite-dimensional nonparametric priors: Theory and applications*, supervised by Antonio Lijoi and Igor Prünster. The Applied Methodology winner was Adj Dieng for her thesis entitled *Deep Probabilistic Graphical Modeling*, supervised by David Blei.



Leonard Jimmie Savage

Leonard Jimmie Savage (1917–1971) was IMS President in 1957–8, and was elected an IMS Fellow in 1950. He had been selected to give the 1972 Wald lectures at the time of his untimely death aged 53. His 1954 book *The Foundations of Statistics* proposed a theory of subjective and personal probability and statistics that forms one of the strands underlying Bayesian statistics and has applications to game theory. One of Savage’s indirect contributions was his discovery of the work of Louis Bachelier on stochastic models for asset prices and the mathematical theory of option pricing. Savage brought the work of Bachelier to the attention of Paul Samuelson. It was from Samuelson’s subsequent writing that random walk (and subsequently Brownian motion) became fundamental to mathematical finance.

### ISBA Best Student Presentation Award of the Industrial Statistics Section

During ISBA 2021, the 2021 World Meeting of the International Society for Bayesian Analysis, June 28–July 2, the first competition for the Best Student Presentation Award of the Industrial Statistics Section of ISBA took place. The award winner was **Anna Yanchenko** from Duke University, with the presentation “Hierarchical Dynamic Modeling for Individualized Bayesian Forecasting.”

### Narayanaswamy Balakrishnan to deliver inaugural 2022 Theo Cacoullos Memorial Lecture

Theophilos (Theo) Cacoullos, who passed away in 2020, was an IMS Fellow and founder of the Greek Statistical Institute. His research work covered topics in multivariate analysis, characterizations of distributions, variance bounds for univariate and multivariate distributions and many others. His obituary is on page 17.

Theo Cacoullos’s family members have initiated a Theo Cacoullos Memorial Lecture series, starting 2022. The inaugural lecture will be delivered by **Narayanaswamy Balakrishnan**, McMaster University, Canada, during the Annual Panhellenic Statistics Conference. Balakrishnan has been an Honorary Member of the Greek Statistical Institute since 2007. See <http://esi-stat.gr/> for more information about the lecture and Theo Cacoullos. The selected lecturer is a researcher whose contributions have been or promise to be fundamental to the development of mathematical statistics and/or probability theory and related fields. Furthermore, the suitability based on interests of other researchers within the Greek community and potential research interactions with faculty and students, in addition to her/his research or academic record, will also be given due consideration during the selection process.

= 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/aop>

*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/aihp>  
<https://projecteuclid.org/aihp>

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

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

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

### IMS-Affiliated Journals

*Observational Studies*: Dylan Small  
<https://obsstudies.org/>

*Probability and Mathematical Statistics*:  
 Krzysztof Bogdan, Krzysztof Debicki  
<http://www.math.uni.wroc.pl/~pms/>

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



# Meet the Brown PhD Student Award winners

We are pleased to present the three winners of the **2022 IMS Lawrence D. Brown PhD Student Awards**. **Rungang Han**, Duke University, **Rong Ma**, Stanford University, and **Chan Park**, University of Wisconsin–Madison, will present their papers in a special session at the IMS London meeting (June 27–30, 2022): see page 13 for more information on the meeting.



Rungang Han



Rong Ma



Chan Park

Rungang Han was a PhD student at University of Wisconsin–Madison, advised by Anru Zhang. His bachelor's degree was from the School of Mathematical Sciences at Zhejiang University in 2017. He describes his research interests: "I am broadly interested in methodology and theory in high-dimensional statistics, machine learning and optimization. My recent interest focuses on challenges in large-scale statistical matrix/tensor inference. These challenges arise as the classic methods suffer from either statistical sub-optimality or computational limitation. In theory, I focus on studying the statistical guarantee for general non-convex optimization methods; in practice, I develop efficient algorithms in applied data science." Rungang's paper is titled, "Exact Clustering in Tensor Block Model: Statistical Optimality and Computational Limit."

Rong Ma is a postdoctoral scholar in the Statistics Department at Stanford University, advised by David Donoho; his PhD in Biostatistics was awarded from the University of Pennsylvania, jointly advised by T. Tony Cai and Hongzhe Li. He says, "My research interest, broadly speaking, lies in understanding and underpinning of the foundations of data science from a statistical point of view. My current research focuses on (i) statistical inference for large disordered systems and high-dimensional models, (ii) improving theoretical cognitions of data visualization and dimension reduction algorithms, and (iii) their applications in interdisciplinary research such as microbiomics, integrative genomics, among many other fields." He added, "I am very pleased and honored to be selected for the IMS Brown Award!" Rong's paper is titled, "Statistical Inference for High-Dimensional Generalized Linear Models with Binary Outcomes."

Chan Park's broad research interest is "to develop flexible, nonparametric methods to infer causal effects in dependent and/or clustered data and to show the optimality of these methods. To this end, my paper ("Assumption-Lean Analysis of Cluster Randomized Trials in Infectious Diseases for Intent-to-Treat Effects and Network Effects") proposes a new bound-based method that uses pre-treatment covariates, classification algorithms, and a linear program to obtain sharp bounds of the network causal effects that are not point-identified under the presence of interference (i.e. effect spillovers) and noncompliance in cluster randomized trials." Chan also expressed his gratitude for "this once-in-a-lifetime experience," adding, "I want to thank Dr. Brown's family and friends who made this opportunity possible. I also want to thank my 'perfect' advisor Dr. Hyunseung Kang who helped me during the doctoral program. Lastly, I am grateful to my beloved wife and my family for

their moral support. This achievement will motivate my future research to contribute to statistics and related fields of study. I am planning to graduate in May 2022 and am looking for a post-doctoral position. Congratulations to the other two recipients, and I look forward to meeting you in London!"

This year's Brown Award winners, **Xin Bing**, **Ilmun Kim** and **Yichen Zhang**, presented their papers at the 2021 virtual JSM. You can watch a video of their talks (and other special IMS lectures) on our new YouTube channel (see the list on page 5). The videos are at <https://www.youtube.com/c/InstituteofMathematicalStatistics/videos>.

Lawrence D. Brown (1940–2018), Miers Busch Professor and Professor of Statistics at The Wharton School, University of Pennsylvania, had a distinguished academic career. He was known for his groundbreaking work in a broad range of fields including decision theory, recurrence and partial differential equations, nonparametric function estimation, minimax and adaptation theory, and the analysis of call-center data. Professor Brown's firm dedication to all three pillars of academia—research, teaching, and service—sets an exemplary model for generations of new statisticians. The IMS Lawrence D. Brown Ph.D. Student Award advocates for the values by which he lived. Donations are welcome to the IMS Lawrence D. Brown PhD Student Award Fund: <https://imstat.org/shop/donation/>. There's a list of the donors to this fund (and other IMS funds) on pages 8–10.



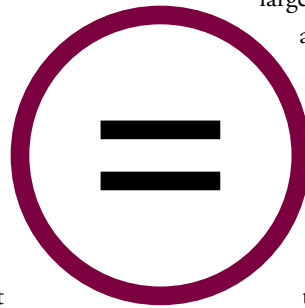
Lawrence (Larry) Brown

# IMS Committee on Equality and Diversity

Nicole Lazar introduces the IMS Committee on Equality and Diversity, which she chairs:

Around a year and a half ago, in summer 2020, then-IMS President Regina Liu convened a new Committee on Equality and Diversity. The charge of the Committee, broadly speaking, was to serve as a sounding-board and focal point for issues surrounding the diversity of IMS. Our first item of business was to understand the composition of IMS membership, and to that end we came up with a first version of the survey that was to be sent out to members. Working with other groups, we arrived at the final version that all of you received—and we hope you filled out!

Over the course of the year, we had many productive conversations about the various aspects of diversity in IMS. In addition to gender and the inclusion of historically underrepresented groups in the mathematical sciences, IMS also faces challenges in sector diversity (most members are in academia), and in age diversity (members tend to skew older). So, how do we remain—or become more—relevant for younger members? As an international organization, IMS benefits from geographical diversity. Historically,



IMS has represented applied and theoretical statisticians and probabilists. However, data science and machine learning currently play an increasingly large role in statistics and probability, such that these fields should also be considered by IMS's future offerings. In short: diversity within IMS is multi-faceted.

The committee would like to explore ways of expanding all aspects of diversity within IMS, but particularly attracting underrepresented groups and younger people, as these are the future of the profession. Many of our colleagues around the world are involved in activities that foster opportunities for those groups. If you know of such—conferences, annual workshops, training programs—let us know. We are interested in learning about what our members are doing along these lines. As we gather information on resources, we can make that available to the IMS community as a whole, to crowdsource a database of activities worldwide.

In addition, the Committee on Equality and Diversity welcomes suggestions from members on activities and initiatives that we could undertake over the next few years. If you have ideas, please email me, Nicole Lazar, at [nfl5182@psu.edu](mailto:nfl5182@psu.edu). And if there is a project that is close to your heart, and you'd like to volunteer to work on it, please also feel free to let me know. We may not be able to implement all initiatives, but we will consider all suggestions from the membership.

## Watch IMS Special Lectures on YouTube

These videos are freely available at <https://www.youtube.com/c/instituteofmathematicalstatistics/videos>. Here's the list so far:

BS/IMS Schramm Lecture *Balloons in Space(s)*

Omer Angel

IMS Wald Lectures I: *Random Walks and Fractal Graphs*;

II: *Low Dimensional Random Fractals*; and III: *Higher*

*Dimensional Spaces* Martin Barlow

IMS ML: *Gambler's Ruin Problems* Laurent Saloff-Coste

IMS ML: *Random Determinants and the Elastic Manifold*

G  rard Ben Arous

IMS ML: *Simplicity and complexity of belief-propagation*

Elchanan Mossel

BS/IMS Doob Lecture: *Parking on Cayley trees and Frozen*

*Erd  s*–R  nyi Nicolas Curien

IMS Brown Award: *Toward instance-optimal reinforce-*

*ment learning* Ashwin Pananjady

IMS Brown Award: *Efficient manifold approximation with*

*Spherelets* Didong Li

IMS Brown Award: *Bayesian pyramids: Identifying*

*interpretable discrete latent structures from discrete*

*data* Yuqi Gu

IMS Blackwell Lecture: *Estimating the mean of a random*

*vector* Gabor Lugosi

IMS ML: *Selective inference for trees* Daniela Witten

IMS ML: *High-dimensional interpolators: From linear*

*regression to neural tangent models*

Andrea Montanari

IMS Wald Lectures I & II: *Modeling and Estimating Large*

*Sparse Networks I & Modeling and Estimating Large*

*Sparse Networks II* Jennifer Chayes

IMS President Address: *Proactive and All-Encompassing*

*Statistics* Regina Liu

IMS ML: *DNA Copy Number Profiling from Bulk Tissues to*

*Single Cells* Nancy Zhang

IMS Lawrence D. Brown PhD Student Award Session

2021: *First-Order Newton-Type Estimator for*

*Distributed Estimation and Inference* Yichen Zhang;

*Minimax Optimality of Permutation Tests* Ilmun

Kim; and *Inference in Interpretable Latent Factor*

*Regression Models* Xin Bing

IMS ML: *What Kinds of Functions Do Neural Networks*

*Learn?* Robert Nowak

IMS ML: *Empirical Optimal Transport: Inference,*

*Algorithms, Applications* Axel Munk

IMS Le Cam Lecture: *Understanding Spectral Embedding*

Jianqing Fan

IMS ML: *Statistical Optimal Transport*, Philippe Rigollet

[IMS ML = IMS Medallion Lecture]

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

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

## Hannan Graduate Student Travel Fund

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

Anon., Gerrit Draisma, Bettie and James Hannan, Giles Hooker

## IMS General Fund

*Donations support the IMS as a whole.*

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Joel Dubin, Josee Dupuis/Eric Kolaczyk, Subhashis Ghoshal, John Grice, William Harkness, Paul Holland, Lynn LaMotte, James Landwehr, Ray-Shine Lee, Thomas Louis, Donald McClure, Greg Minshall, Edsel Peña, Eswar Phadia, Gilles Pisier, Dale Preston, Laurent Saloff-Coste, Stanley Sawyer, David Scott, Norman Severo, Lynne Seymour, Walter Sievers, Michael Stein, Steven Thomson, Donald Ylvisaker, Ken-ichi Yoshihara, Marvin Zelen, Alan Zimmerman

## IMS Gift Membership Fund (2012 onwards)

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

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

## IMS Grace Wahba Award and Lecture Fund

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

Pegah Afshar, Arwen Bradley, David Callan, Bokyoung Choi, Xiaowu Dai, Jianqing Fan, Feng Gao, Andrew Gelman, Zhigeng Geng, Chong Gu, Hui-Nien Hung, Hongkai Ji, Bai Jiang, Hui Jiang, Iain Johnstone, Hyunki Kim, Ryung Kim, Roger Koenker, Jing Kong, Yoonkyung Lee, Faming Liang, Xihong Lin, Yi Lin, Linxi Liu, Fan Lu, Li Ma, Wenxiu Ma, Susan Murphy, Tai Qin, Richard Samworth, Bernard Silverman, Daniela Witten & Ari

Steinberg, Paul Switzer, Chien-Cheng Tseng, Bernard Viort, Duzhe Wang, Wing Hung Wong, Xianhong Xie, Kun Yang, Bin Yu, Ming Yuan, Anru Zhang, Hao Zhang, Min Zhang, Sheng Zhong, Qing Zhou

## IMS New Researcher Travel Award Fund

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

Amy Grady & Richard Smith, Axel Munk, Richard Olshen & Amy Grady, Debashis Pail, Edsel Peña, David Scott

## Lawrence D. Brown PhD Student Award Fund

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

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

### Le Cam Lecture Fund

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

Charles Antoniak, Miguel Arcones, Frederick Asare, Dianne Carrol Bautista, Rudolf Beran, Peter Bickel, Thomas Billings, David Blackwell, William Brady, Karl Broman, Lawrence Brown, F Thomas Bruss, Prabir Burman, Andrew Carter, Yu-Lin Chang & Pao-Kuei Wu, Gang Chen, Louis Chen, Chin Long Chiang, Bertrand Clark, Michael Cohen, Anirban DasGupta, Roger Day, Jay Devore, Kjell Doksum, David Donoho, Richard M Dudley, Lutz Duembgen, Robert Elashoff, Jianqing Fan, Kai-Tai Fang, Dorian Feldman, Thomas Ferguson, Dean Foster, Anthony Gamst, Li Gan, Jayanta Ghosh, Dennis Gilliland, Evarist Gine, Prem Goel, Alex Gottlieb, Z Govindarajulu, Priscilla Greenwood, Yuli Gu, Shanti Gupta, Peter Guttorp, Charles Hagwood, James Hannan, Paul Holland, Rafael Irizarry, Lancelot James, Paramaraj Jeganathan, Kun Jin, Iain Johnstone, Rafail Khasminski, Ja-Yong Koo, Hira Koul, Andrzej Kozek, Yury Kutoyants, Louise Le Cam, Kee-Won Lee, Erich Lehmann, Lei Li, Shili Lin, Hung-Kung Liu, Albert Lo, Richard Lockhart, VS Mandrekhar, James Marron, George Martin, John McDonald, Paul Meier, Max Moldovan, Per Mykland, Peter Ney, Deborah Nolan, Richard Olshen, Michael Ostland, Edsel Peña, Mark Pinsky, Gilles Pisier, Madabhushi Raghavachari, RV Ramamoorthi, Guilherme Rocha, Walter Rosenkrantz, George G and Mary L Roussas, Habib Salehi, Frederic Schoenberg, Richard Smith & Amy Grady, Terry Speed, James Stapleton, Philip Stark, Charles Stein, David Steinsaltz, Stephen Stigler, Shiaoyn Sun, Takeru Suzuki, Anders Rygh Swensen, Shigeo Takenaka, Michael Talagrand, Steven Thomson, Lanh Tran, Howard Tucker, Sara van de Geer, Constance van Eeden, Guenther Walther, Jane-Ling Wang, Yazhen Wang, Shaoli Wang, Jon Wellner, Robert Wijsman, Colin Wu & Li-Ping Yang, Shen X, Jian-Lun Xu, Grace Yang, Yuhong Yang, Yannis Yatracos, Bin Yu, Marvin Zelen, Ping Zhang, Hongyu Zhao

### Open Access Fund

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

Dorothee Aeppli, Anon., Anon., Anon., Ersen Arseven, Frederick Asare, Arifah Bahar, Dianne Carrol Bautista, Peter Baxendale, Thomas Billings, Ernest Bowen, William Brady, Kevin Buhr, Herminia Calvete, Kathryn Chaloner, Louis Chen, Cindy Christiansen, William Cleveland, Jose Cordeiro, Louis Cote, Catherine Crespi, Angelos Dassios, Joel Dubin, Michael Fay, Raisa (Raya) Feldman, Kostas Fokianos, Anthony Gamst, Charles Geyer, Subhashis Ghosal, Patricia Giurgescu, Charles Goldie, Christopher Green, Risto Heijmans, David Hoaglin, Robert Hoekstra, Giles Hooker, Fred Huffer, Jane Hutton, Ernesto Jardim, Brian Junker, Harry Kesten, Eric Key, Chandra Kiran Krishnamurthy, Luca La Rocca, Michael Lasarev, Zenghu Li, Yuan Liu, J Maindonald, Matthew Marler, John McDonald, Roy Mendelsohn, Maria Mendoza, William Mietlowski, Max Moldovan, Carlos Mora Gonzalez, Peter Ney, Roberto Oliveira, Richard Olshen, Edsel Peña, Ed Perkins, Sonia Petrone, Ross Pinsky, Gilles Pisier, Igor Pruenster, Ruslan Pusev, Alex Reinhart, Andreas Ruckstuhl, Arusharka Sen, Walter Sievers, Jonathan Skinner, Richard Smith & Amy Grady, Charles Stein, David Steinsaltz, Jason Stover, Shigeo Takenaka, Steven Thomson, Lanh Tran, Bruce Trumbo, Shaoli Wang, Wojbor Woyczynski, Danyu Yang, Marvin Zelen, Huiming Zhu

### Peter Hall Early Career Prize Fund

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

Anon., Anon., Adelchi Azzalini, David Banks, Rudolf Beran, Rabi Bhattacharya, Peter Bickel, Mary Ellen Bock, Alexandre Bouchard-Cote, Richard Bradley, Yun Yu and Tony Cai, Louis Chen, Song Xi Chen, Noel Cressie, Anirban DasGupta, Richard A. Davis, Aurore Delaigle, Yanming Di, Margaret Donald, Miki and David Donoho, Lutz Duembgen, Jianqing Fan, Andrey Feuerverger, Turkan Gardenier, Tilmann Gneiting, Prem Goel, Charles Goldie, Amy Grady & Richard Smith, Elyse Gustafson, Jeannie Hall, James J. Higgins, Giles Hooker, Tomoyuki Ichiba, Gareth James, Jiashun Jin, Bingyi Jing, Iain Johnstone, Estate Khmaladze, Claudia Kirch, Roger Koenker, Eric Kolaczyk, Luca La Rocca, Runze Li, Zenghu Li, Xinhong Lin, Shiqing Ling, Yingying Fan and Jinchi Lv, Yanyuan Ma, Yoshihiko Maesono, James Stephen Marron, Geri and Kristina Mattson, Geoffrey McLachlan, Xiao-Li Meng, Carl Mueller, Hans-Georg Müller, Boaz Nadler, Balgobin Nandram, John Nolan, Jean Opsomer, Fredos Papangelou, Layla Parast, Byeong Uk Park, Debashis Paul, Edsel Peña, Brett Presnell, Peihua Qiu, Annie Qu, Aaditya Ramdas, Nancy Reid, Philip Reiss, Johannes Ruf, David Ruppert, Richard Samworth, David Scott, Timo Seppäläinen, Paul Shaman, Qi-Man Shao, Bernard Silverman, Dylan Small, Richard Smith/ Amy Grady, Robert Smythe, Terence Speed, Clifford

*Continues on page 8*

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# Donors to IMS Funds

## Peter Hall Early Career Prize Fund *continued*

Spiegelman, Stephen Stigler, Stilian Stoev, Gabor Szekely, Boxin Tang, Donatello Telesca, Ryan Tibshirani, Surya Tokdar, Howell Tong, Berwin Turlach, University of Melbourne, Handan and Matt Wand, Jane-Ling Wang, Qiying Wang, Edward Waymire, Jon Wellner, Susan Wilson, Aihua Xia, William Weimin Yoo, George Alastair Young, Bin Yu, Harrison Zhou, Johanna F. Ziegel, Hui Zou

## Schramm Lecture Fund

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

Anon., Anon., Anon., Anon., A Barbour, Cambridge University Press, Raisa (Raya) Feldman, Thomas Kurtz, Zenghu Li, Russell Lyons, John McDonald, Marina Meila, Microsoft, Sayan Mukherjee, Roberto Oliveira, Richard Olshen, Ross Pinsky, Gilles Pisier, Thomas Salisbury,

Timo Seppalainen, Jeffrey Steif, David Steinsaltz, Kenneth Stephenson, Edward C. Waymire

## Scientific Legacy Fund

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

Anon., William Mietlowski, Paul Shaman, Springer

## Tweedie New Researcher Fund

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

William Anderson, Elja Arjas, Dianne Carrol Bautista, William Brady, F Breidt, Peter Brockwell, Bradley Carlin, Alicia Carriquiry, Kathryn Chaloner, Louis Chen, John

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

*Thank you all!*

# 2022 COPSS Awards: Nominations

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

## Presidents' Award

The Presidents' Award is presented annually to a young\* member of one of the participating societies of COPSS in recognition of outstanding contributions to the statistics profession. (\* See COPSS website for more details on eligibility criteria). Nominations to **Tianxi Cai**, Chair, COPSS Presidents' Award Committee, Harvard University • [tcai@hsph.harvard.edu](mailto:tcai@hsph.harvard.edu)

## COPSS Leadership Academy Award

The COPSS Leadership Academy Award was established in 2020 to recognize early-career statistical scientists who show evidence of and potential for leadership and who will help shape and strengthen the field. The award is designed both to call attention to the efforts of these individuals and to provide a mechanism for them to share their vision for the field with each other and the statistical community. Nominations to **Richard Samworth**, Chair, COPSS Leadership Academy Award Committee, University of Cambridge • [r.samworth@statslab.cam.ac.uk](mailto:r.samworth@statslab.cam.ac.uk)

## Distinguished Achievement Award and Lectureship

The Distinguished Achievement Award and Lectureship (DAAL) is awarded annually to recognize the importance of statistical methods for scientific investigations. The 2022 award winner will deliver the lecture at JSM in Washington D.C. Nominations to **Rebecca Doerge**, Chair, COPSS DAAL Award Committee, Carnegie Mellon University • [rwdoege@cmu.edu](mailto:rwdoege@cmu.edu)

## Elizabeth L. Scott Award and Lectureship

The Elizabeth L. Scott Award and Lectureship are presented biennially (even-numbered years) to an individual, male or female, who has helped foster opportunities in statistics for women. The 2022 award winner will deliver the E.L. Scott Lecture at the JSM in Washington D.C. Nominations to **Rebecca Hubbard**, Chair, COPSS E.L. Scott Lecture and Award Committee, University of Pennsylvania • [rhubb@pennmedicine.upenn.edu](mailto:rhubb@pennmedicine.upenn.edu)



## Takis Tackles:

# Fin-de-pandemic Math Education Miscellanea

### IMS Contributing Editor Takis Konstantopoulos writes:

Pandemics, we learn by studying a bit of history, have been game changers. For example, H.G. Wells wrote in *A Short History of the World* in 1922:

“In the second century A.D. a great misfortune came upon the Roman and Chinese empires that probably weakened the resistance of both to barbarian pressure. This was a pestilence of unexampled virulence. It raged for eleven years in China and disorganized the social framework profoundly. The Han dynasty fell, and a new age of division and confusion began from which China did not fairly recover until the seventh century A.D. with the coming of the great Tang dynasty.”

But do we ever learn from history that nothing can be taken for granted? The difference between global diseases of the past and present is that we now have the ability to rapidly deploy vaccinations (to those who do not object to them for political or religious reasons) that can limit the symptoms and rate of spread. And so I can be mildly optimistic. There are, however, many things that have changed, for the good or the bad, and some changes are probably permanent. We’ve all learned lessons and seen that we can always extract something valuable even from seemingly dismal situations. (I refer to the column by Daniela Witten in the previous issue, <https://imstat.org/2021/09/30/written-by-witten-reflections-on-19-months-of-work-from-home/>. Well said.)

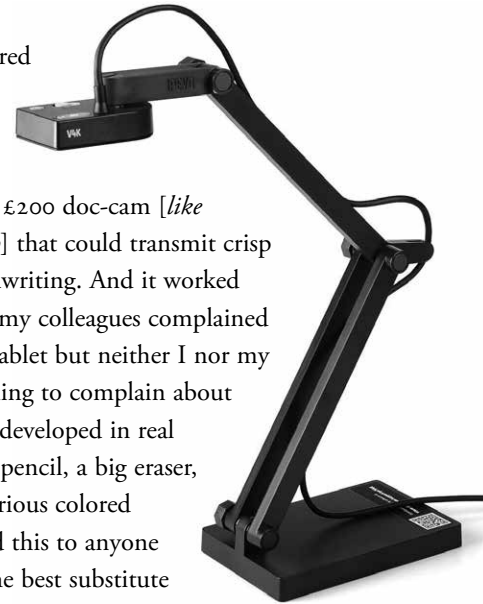
I seem to have an obsession with mathematical education, if previous articles in this column are anything to go by, and that’s probably due to my insistence that learning how to think mathematically helps solidify one’s intuition in a particular field, e.g. statistics.

Let me look at some of the good and bad things that are coming out of educational practices during the pandemic:

### A sample of the Good:

- ✓ **Online lecturing** via, e.g., Zoom, is not all that bad, especially when the class size is manageable, with one proviso: that attendees understand that they have to attend and participate (many students do not bother to watch pre-recorded lectures). At the beginning of the pandemic, I made the quick decision not to accept

a £1200 tablet offered to every faculty member of my university but instead asked for a £200 doc-cam [like the one in the photo] that could transmit crisp images of my handwriting. And it worked miracles. Many of my colleagues complained about the clumsy tablet but neither I nor my students had anything to complain about seeing math being developed in real time by my £1 6B pencil, a big eraser, a sharpener and various colored pens. I recommend this to anyone unreservedly. It’s the best substitute for lecturing in front of a board, and in some senses better, because students could take images of every single page.



- ✓ **Global seminars/conferences.** I enjoyed these a lot. What a great two years it’s been, having the opportunity to attend all kinds of talks, from Australia and Japan to Europe and the US, while sitting at home. I know, many people say that the coffee break is the most important part of a workshop—and I agree—but we don’t have to have everything *either* online *or* in person. Some seminars and workshops could be both, and this would reduce unnecessary long and painful flights. And it’ll be good for Gaia too.

### A sample of the Bad:

- ✗ **The university student experience.** Being a (beginning) student during a time where the university has gone entirely online has been a disaster from the student’s point of view. I don’t think I will elaborate on this as it’s clear that universities are more than the sum of their online courses. I sincerely hope that this is not an irreversible trend.
- ✗ **The further rise of the all-administrative university and pedagogical demagogues:** As everybody knows, universities have been shifting from faculty-driven to administration-driven [c.f. Benjamin Ginsberg: *The Fall of the Faculty: The Rise of the All-Administrative*

Continues on **page 10**

## Takis Tackles continued from previous page

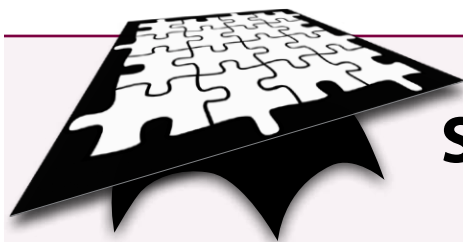
*University and Why It Matters*, Oxford University Press, 2011], so much so that whole departments do not have administrative assistants but, say, the office of a chief administrator is staffed with a gazillion administrative specialists. The pandemic has given more power to administrators who rushed to create rules and sub-rules via committees, sub-committees and sub-sub-committees, governing and micro-managing every aspect of one's academic teaching. Is this irreversible?

I'm not the only one who's been asking questions about the state of mathematical (theoretical, applied, statistical and what-have-you) education. Anirban DasGupta asked quite a few in <https://imstat.org/2021/07/17/anirbans-angle-more-questions-than-answers/>. His asking, reflects that education is, indeed, in decline—the other pandemic as I have mentioned before in this column. I feel obliged to answer just two (for lack of space) of Anirban's questions:

*Q1. Should statistics students learn math?* Well, my answer is yes, of course, just like everyone else (especially when stat departments are within mathematics units). But it's not what they should learn but how they learn it—and also, that they should learn how to think. Indeed,

why should a university student learn linear algebra as a collection of recipes? Why should we strive to teach as much as possible, while ignoring that a most important outcome of mathematical education is the ability to think independently?

*Q9. Should students see proofs?* This question astonishes me (but I know why it's being asked). Let me rephrase: is it possible to learn anything at all without learning why it is true? I don't care if you call it a formal proof or an explanation, but I demand that no student should take anything for granted without any understanding. Take, for instance, the "law" of large numbers. I find it distressing when some think it's an experimental result, others think it's a law of nature and many do not understand that it's something we can understand without experiment and without observing nature. It took some time for humans to develop the right mathematical tools to prove such theorems; tools that can be used to predict more results including many that can be useful in practice. Oh yes, talking about pandemics and epidemics, how can one be sure that their Markovian model is, in the limit, a manifestation of more classical deterministic ones, without understanding the law of large numbers?



## Student Puzzle Corner 35

**Anirban DasGupta posed this problem, a blend of calculus and probability, in the October/November issue. There's still (just!) time to send your solution.**

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

- (a) Let  $X$  have a standard normal distribution. What is the expected value of the number of times we have to extract a square root of  $|X|$  for the answer to be less than 1.0001?

[Be careful! Depending on the value of  $X$ , we may not have to extract a square root even once.]

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

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

Student members of IMS are invited to submit solutions to [bulletin@imstat.org](mailto:bulletin@imstat.org) (with subject "Student Puzzle Corner").

The names of student members who submit correct solutions, and the answer, will be published in the issue following the deadline.

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

**Deadline: December 1, 2021**

# Auditor's Report 2020

The IMS Treasurer's annual report was published in the September 2021 issue of the *IMS Bulletin*. You can download Zhengjun Zhang's report from [https://imstat.org/wp-content/uploads/2021/08/Bulletin50\\_6-TreasurersReport2020.pdf](https://imstat.org/wp-content/uploads/2021/08/Bulletin50_6-TreasurersReport2020.pdf).

The report details membership and subscription data for the calendar year end 2020.

The 2020 fiscal year-end audit report has now also been completed, and it is posted online on the Council Reports page: <https://imstat.org/council-reports-and-minutes/>.

*This is page 3 from the auditor's report, which gives an overview of the IMS's financial position. The rest of the report can be downloaded from <https://imstat.org/council-reports-and-minutes/>*

## Institute of Mathematical Statistics

### Statement of Financial Position

December 31, 2020 (with comparative totals for 2019)

	<u>Assets</u>	
	2020	2019
Cash and cash equivalents	\$ 163,074	\$ 128,215
Cash held for others	14,298	14,183
Accounts receivable, net	197,323	135,675
Interest receivable	4,868	10,228
Investments	9,723,295	8,171,067
Investments held for others	282,247	259,564
Prepaid expenses	60,678	64,096
Certificates of deposit	1,807,924	1,793,003
Investments restricted for endowment	328,827	270,995
Total assets	<u>\$ 12,582,534</u>	<u>\$ 10,847,026</u>
	<u>Liabilities and Net Assets</u>	
Liabilities:		
Accounts payable and accrued expenses	\$ 60,523	\$ 41,912
Fiscal agent liability	296,545	273,747
Unearned memberships, subscriptions, and meeting revenues	1,150,589	1,095,648
Total liabilities	<u>1,507,657</u>	<u>1,411,307</u>
Net assets:		
Without donor restrictions:		
Undesignated	8,475,244	6,930,947
Council-designated	2,116,937	2,115,880
Total net assets without donor restrictions	<u>10,592,181</u>	<u>9,046,827</u>
With donor restrictions	482,696	388,892
Total net assets	<u>11,074,877</u>	<u>9,435,719</u>
Total liabilities and net assets	<u>\$ 12,582,534</u>	<u>\$ 10,847,026</u>

The accompanying notes are an integral part of these financial statements

## Out To Innovate career development awards for trans, intersex and non-binary grad students and postdocs

Out to Innovate is offering a second year of the Out to Innovate™ Career Development Fellowship, formerly known as the Ben Barres Fellowship. This \$2000–\$5000 award supports the professional development of trans, intersex, and non-binary graduate students and post-doctoral researchers in STEM fields. The deadline to apply is December 3, and all eligible students and postdocs are encouraged to apply.

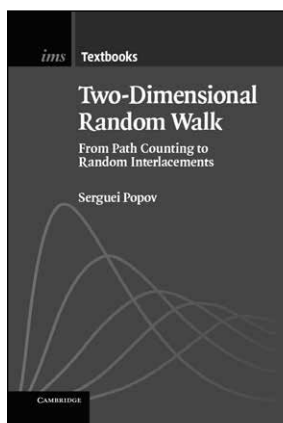
For more information and to apply please see <https://www.noglstp.org/programs-projects/career-development-fellowship/>

*Out to Innovate™, formerly known as National Organization of Gay and Lesbian Scientists and Technical Professionals (NOGLSTP). We are still the same organization, but are rebranding to have an all inclusive name so that all LGBTQ+ people in STEM will know that they are welcome and included in our advocacy and programming.*



*The Institute of Mathematical Statistics presents*

# IMS TEXTBOOKS



## ***Two-Dimensional Random Walk: From Path Counting to Random Interlacements***

Serguei Popov, Universidade do Porto

The main subject of this introductory book is simple random walk on the integer lattice, with special attention to the two-dimensional case. This fascinating mathematical object is the point of departure for an intuitive and richly illustrated tour of related topics at the active edge of research. It starts with three different proofs of the recurrence of the two-dimensional walk, via direct combinatorial arguments, electrical networks, and Lyapunov functions. After reviewing some relevant potential-theoretic tools, the reader is guided toward the relatively new topic of random interlacements, which can be viewed as a ‘canonical soup’ of nearest-neighbor loops through infinity—again, with emphasis on two dimensions. On the way, readers will visit conditioned simple random walks—the ‘noodles’ in the soup—and also discover how Poisson processes of infinite objects are constructed, and review the recently introduced method of soft local times. Each chapter ends with many exercises, making it suitable for courses and independent study.

*“An excellent and inspiring introduction to simple random walk and random interlacements, in transient and recurrent cases. With its careful and original selection of topics, the reader will soon grasp the general picture and main ideas though to quite advanced material. Each chapter has a great selection of exercises with hints and solutions. This book is primarily designed for self-study, but it can also be used for a graduate course on Markov chains or Poisson processes.”*

Francis Comets, Université de Paris

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Paperback \$39.99

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Cambridge University Press, with the Institute of Mathematical Statistics, established the *IMS Monographs* and *IMS Textbooks* series of high-quality books. The series editors are Nancy Reid (Coordinating Editor), Ramon van Handel (Probability), Arnaud Doucet (Algorithms) and John Aston (Statistics).



# Nominate for IMS Awards

## Carver Award

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

## IMS Fellows

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

## Early-Career Awards

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

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

# ...or apply for a Travel Award

## Awards for Grad Students, New Researchers

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

# IMS London Meeting 2022

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

The 2022 IMS Annual Meeting will be held in London, UK, June 27–30. We plan to hold a normal in-person conference, but with an online format as a fall-back option. Following requests from members of our community, the conference is accepting proposals for **Topic Contributed Sessions**. Each 90-minute session consists of four talks. A successful proposal should contain the session title, the name, affiliation and email address of the organizer or chair, and, for each of the four speakers, their name, affiliation, email address, title and abstract (no more than 300 characters each). The deadline for submissions is 15 February, 2022. Decisions for acceptance will be made by 15 March 2022.

Travel awards are available for Graduate Students and New Researchers: see above.

The keynote speakers are listed on the meeting website, at <https://www.imsannualmeeting-london2022.com/keynote-speakers>

In addition to the three special sessions previously announced (the

Royal Statistical Society Invited Session, the Lawrence Brown PhD Student Award Session [*see article on page 4*], and the IMS New Researchers Group Session [details forthcoming]), there will be a Special Invited Session on Grace Wahba’s Contributions, as the inaugural Grace Wahba Award will be delivered at the meeting, by Michael I. Jordan.



# Recent papers

## Statistical Science

The central purpose of *Statistical Science* is to convey the richness, breadth and unity of the field by presenting the full range of contemporary statistical thought at a moderate technical level, accessible to the wide community of practitioners, researchers and students of statistics and probability. Access papers at <https://projecteuclid.org/journals/statistical-science>

### Volume 36, No. 4, November 2021

Identification of Causal Effects Within Principal Strata Using Auxiliary Variables . . . . .	ZHICHAO JIANG, PENG DING: 493-508
Confidence as Likelihood . . . . .	YUDI PAWITAN, YOUNGJO LEE: 509-517
Revisiting the Gelman–Rubin Diagnostic . . . . .	DOOTIKA VATS, CHRISTINA KNUDSON: 518-529
Comparison of Two Frameworks for Analyzing Longitudinal Data . . . . .	JIE ZHOU, XIAO-HUA ZHOU, LIUQUAN SUN: 530-541
Symmetrical and Non-symmetrical Variants of Three-Way Correspondence Analysis for Ordered Variables . . . . .	ROSARIA LOMBARDO, ERIC J. BEH, PIETER M. KROONENBERG: 542-561
In Defense of the Indefensible: A Very Naïve Approach to High-Dimensional Inference . . . . .	SEN ZHAO, DANIELA WITTEN, ALI SHOJAIE: 562-577
Robustness by Reweighting for Kernel Estimators: An Overview . . . . .	KRIS DE BRABANTER, JOS DE BRABANTER: 578-594
Testing Randomness Online . . . . .	VLADIMIR VOVK: 595-611
A Conversation with Don Dawson . . . . .	BOUCHRA R. NASRI, BRUNO N. RÉMILLARD, BARBARA SZYSZKOWICZ, JEAN VAILLANCOURT: 612-622

## Bernoulli

*Bernoulli* is the journal of the Bernoulli Society for Mathematical Statistics and Probability. It is an IMS-supported journal, providing a comprehensive account of important developments in the fields of statistics and probability. The Editors-in-Chief are Mark Podolskij and Markus Reif. Access papers at <https://projecteuclid.org/journals/bernoulli>

### Volume 27, No. 4, November 2021

On posterior contraction of parameters and interpretability in Bayesian mixture modeling . . . . .	ARITRA GUHA, NHAT HO, XUANLONG NGUYEN: 2159-2188
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## *Journal of Computational and Graphical Statistics*

The Journal of Computational and Graphical Statistics (JCGS) presents the very latest techniques on improving and extending the use of computational and graphical methods in statistics and data analysis. Established in 1992, this journal contains cutting-edge research, data, surveys, and more on numerical graphical displays and methods, and perception. Articles are written for readers who have a strong background in statistics but are not necessarily experts in computing. Published in March, June, September, and December. The Editor is Tyler McCormick, University of Washington. Journal of Computational and Graphical Statistics is an official Publication of the American Statistical Association (ASA). Members of the Institute of Mathematical Statistics receive complementary online access to JCGS. Access papers at <https://www.tandfonline.com/loi/ucgs20>

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# OBITUARY: Theophilos Cacoullos

## 1932–2020

THEOPHILOS N. CACOULLOS was born April 5, 1932, in the village of Pachna in Limassol district, Cyprus. After his secondary education in Limassol (valedictorian, 1950), he studied mathematics at the University of Athens and earned his diploma (BSc) in 1954. Then, Cacoullos returned to Cyprus and worked for two years as a mathematics teacher at his alma mater high school. In 1957, he went to the US on a scholarship from the Greek Scholarships Foundation for postgraduate study. He earned his MA in 1960, and then his PhD in 1962, in mathematical statistics from Columbia University.

Cacoullos's master's thesis, with Alan Birnbaum, on median unbiased estimation prompted his paper, "Combinatorial Derivation of the Distribution of the Truncated Poisson Sufficient Statistic," published in the *Annals of Mathematical Statistics*. In 1989, Cacoullos characterized normality under spherical symmetry by the admissibility of Fisher's linear discriminant function in a paper in *Statistics and Probability Letters*. He established that, within the family of spherical normal scale mixtures, the normal maximizes the minimax probability of correct classification, provided the Mahalanobis distance between the two populations is the same.

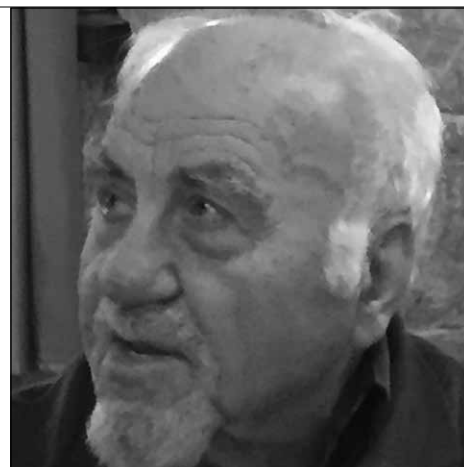
In the early 1960s, Cacoullos worked as a research associate at Stanford University. There, he developed ties with Herman Chernoff, Ingram Olkin, and Charles Stein, among others. He worked with Olkin, producing their joint 1965 *Biometrika* paper on the bias of functions of the characteristic roots of a random matrix.

In May 1962, Cacoullos returned to Cyprus, accepting the position of the director of the department of statistics and research of the new independent Republic

of Cyprus. To pursue an academic career, however, he returned to the US, accepting an assistant professorship at the University of Minnesota. During his 15 months back in Cyprus, he prepared his 1966 paper on nonparametric multivariate density estimation. In Minneapolis, he worked on characterizations of normality by constant regression of quadratic and linear forms. During the same period, he discovered the interesting relation between the  $t$  and  $F$  distributions, published in *JASA* in 1965, and also exploited in relation to homoscedasticity tests for a bivariate normal.

In 1965, Cacoullos returned to New York to take a position in the department of industrial engineering and operations research at New York University. While at New York University as associate professor, he was elected chair of probability and statistics at the University of Athens and, in 1968, returned to Greece to begin his 31-year career as mathematical and physical sciences faculty.

An excellent teacher who never used notes but did use spontaneous humor, Cacoullos no doubt influenced many of his students. In addition to standard courses in statistics, he introduced combinatorics, linear programming, stochastic processes, and actuarial mathematics—he was an honorary member of the Greek Actuarial Society. Equally important for the future of research in mathematical statistics in Greece was Cacoullos's supervision of several young mathematicians. C.A. Charalambides was his first doctoral student. Subsequently, many prominent colleagues earned their PhDs in mathematical statistics under his supervision or joint supervision. Among them are M. Koutras, V. Papathanasiou, and N. Papadatos, now professors of mathematical statistics.



Theo Cacoullos

Photo:

Cacoullos's interest in characterizations was renewed in the 1980s with characterizations of mixtures and priors by posterior expectations. With H. Papageorgiou, a fresh PhD at the time, Cacoullos coauthored several articles characterizing discrete distributions by a conditional and a regression function.

Cacoullos visited McGill University in 1972–73 and 1975–76, always enjoying the collaboration and friendship of H. Ruben. In the fall of 1983, he gave a series of special lectures at the MIT Statistics Center at Chernoff's invitation. He visited the Center for Multivariate Analysis under the directorship of C.R. Rao, then at the University of Pittsburgh, in the spring of 1989.

Cacoullos published more than 70 papers in international journals. Latterly, he became interested in the nature and history of probability and statistics. He published seven textbooks on probability and statistics in Greek and edited *Discriminant Analysis and Applications* (Academic Press, 1973). In 1989, Springer published his book *Exercises in Probability*. His recent contributions on Chernoff-type and Cacoullos-type variance generated much interest and produced a variety of publications.

This obituary, by Charalambos A. Charalambides and Narayanaswamy (Bala) Balakrishnan was first printed in the June 2020 *Amstat News*. Balakrishnan is delivering the inaugural Theo Cacoullos Memorial Lecture next year: see page 3.



# IMS meetings around the world

## Joint Statistical Meetings: 2021–2026

### 2022 Joint Statistical Meetings

August 6–11, 2022. Washington DC

[w](https://www2.amstat.org/meetings/jsm/2022/) <https://www2.amstat.org/meetings/jsm/2022/>

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

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



STATISTICS: A FOUNDATION FOR INNOVATION

### 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, USA	August 2–7, 2025	Boston, MA, USA
Toronto, Canada		Nashville, TN, USA	

### 2022 IMS International Conference on Statistics and Data Science (ICSDS)

**NEW**

December 13–16, 2022, Florence, Italy

[w](https://sites.google.com/view/icsds2022) <https://sites.google.com/view/icsds2022>

The first IMS International Conference on Statistics and Data Science (ICSDS) is to be held in Florence, Italy, from December 13–16, 2022. The objective of ICSDS is to bring together researchers in statistics and data science from academia, industry and government in a stimulating setting to exchange ideas on the developments in modern statistics, machine learning, and broadly defined theory, methods and applications in data science. The conference will consist of plenary sessions, and about 50 invited, contributed and poster sessions. **Young researchers are particularly encouraged to participate**, with a portion of the invited sessions designated for them.

### BNP13: the 13th Conference on Bayesian Nonparametrics

October 24–28, 2022 in Puerto Varas, Chile

[w](https://midas.mat.uc.cl/bnp13/) <https://midas.mat.uc.cl/bnp13/>

This meeting aims to gather in Chile leading experts in this already consolidated and rapidly expanding field for a full week of plenary, invited, contributed and poster talks, reflecting the many and varied aspects of the theoretical, methodological, and applied work in the discipline. We also expect to attract many young researchers to the event, especially those residing in South America and in Chile. The event features three keynote lectures (free topic), invited and contributed sessions, spanning all the wide spectrum of theory, methodology and applications of Bayesian methods from the nonparametric viewpoint: asymptotics, advanced computation, robustness, inference in high-dimensional settings, deep learning, machine learning, uncertainty quantification, clustering and applications.

### 2022 IMS Annual Meeting

June 27–30, 2022. London, UK

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

#### CALL FOR CONTRIBUTED TALKS:

see website for details.

The 2022 IMS Annual Meeting will be 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

JSM: Boston, MA,  
August 1–6, 2026

# 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.

## 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>

## Frontier Probability Days

**December 3–5, 2021, Las Vegas, Nevada**

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

## 2024 IMS annual meeting

**Bernoulli–IMS 11th World Congress in Probability and Statistics**

**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.



## 2022 ENAR/IMS Spring Meeting

**March 27–30, 2022. Houston, TX, USA**

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

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

## 2023 ENAR/IMS Spring Meeting

**March 22–25, 2023. Nashville, TN, USA**

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

## 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)

This conference is focused on the changing role and nature of the discipline of statistics in the time of a data deluge in many applications, and increasing success of artificial intelligence at performing many data analysis tasks. The conference aims to bring together experts in statistical methodology and theory for complex and big data with researchers focused on a range of applications, from genomics to social networks, and to provide opportunities for new researchers to learn about both emerging methods and applications. The conference will also be an occasion to celebrate Professor Peter Bickel's 80th birthday.

## 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, then January 2022; it is now postponed until January 2023. Invited Session Proposals submitted in 2020 are being kept on file.

UPDATED

POSTPONED

# Other meetings around the world

## Biomedical Data Science Innovation Lab: Ethical Challenges of AI in Biomedicine June 13–17, 2022 Charlottesville, VA

<http://innovation.lab.virginia.edu/>

There is still time to apply to the 2021–2022 Biomedical Data Science Innovation Lab: Ethical Challenges of AI in Biomedicine: a free, innovative academic workshop program hosted by the University of Virginia! The five-day in-person event will take place at Boar's Head Resort in Charlottesville, VA on June 13–17, 2022. It is anticipated that interdisciplinary research teams formed at the workshop will result in new peer-reviewed publications or NIH/NSF grant proposals. **US-based ethicists, bioethicists, as well as biomedical, quantitative, and data science researchers (or a combination of any of these) at the late-stage postdoctoral and early-stage junior faculty level are welcome to apply on a rolling basis until January 31, 2022 at 11:59 PM ET.** For more information and to apply to this year's Biomedical Data Science Innovation Lab, please visit our website: <http://innovation.lab.virginia.edu/>.

## Biomedical Data Science Seminar Series

<http://innovation.lab.virginia.edu/>

**Youtube channel:** <https://www.youtube.com/channel/UCKIDQ0a0JcUd3K9C1T57FLQ>

Tune in to the 2021–2022 Biomedical Data Science Seminar Series on most Fridays until May 2022, at 12:00–1:00 PM ET to watch cutting-edge presentations about biomedical data science, AI, and ethics. We have an impressive line-up of experienced speakers coming from University of Washington, University of Michigan, United States Military Academy, University of Edinburgh School of Law, and more! Be sure to mark your calendars with this year's schedule and subscribe to *The Foundations of Biomedical Data Science Newsletter* to receive more information and seminar reminders.

## O'Bayes 2022

September 7–10, 2022

University of California Santa Cruz, USA

<https://obayes.soe.ucsc.edu/>

O'Bayes 2022 is dedicated to facilitate the exchange of recent research developments in objective Bayes theory, methodology and applications, and related topics, to provide opportunities for new researchers, and to establish new collaborations and partnerships. The meeting is the biennial meeting of the Objective Bayes section of the International Society for Bayesian Analysis (ISBA). In this conference, we will be celebrating the 70th birthday of Luis Pericchi, an extraordinary person who has been very influential in the successful development of O'Bayesian ideas.

The list of speakers and discussants is at <https://obayes.soe.ucsc.edu/speakers.html>

As is traditional, the conference will be preceded by a series of tutorials on different topics related to the theme of the conference and mostly intended for students and newcomers to the field. Speakers include:

Mark Steel (University of Warwick)

Michele Guindani (University of California, Irvine)

Subhashis Ghosal (North Carolina State University)

Omiros Papaspiliopoulos (Bocconi University)



Luis Pericchi

## 2022 ISBA World Meeting

June 25–July 1

Hotel Bonaventure, Montreal, Canada

<https://isbawebmaster.github.io/ISBA2022/>

In June 2022, Montreal will be the center of Bayesian thinking in the world. The purpose of the meeting is to bring together the diverse international community of investigators in statistics who develop and use Bayesian methods to share recent findings and to present new and challenging problems.

Foundational Lectures will be given by: Subhashis Ghosal, North Carolina State University; Steffen Lauritzen, University of Copenhagen; Adrian Raftery, University of Washington; and Nancy Reid, University of Toronto

Keynote Lectures will be given by: Francesca Dominici, Harvard University; Antonio Lijoi, Bocconi University; David A. Stephens, McGill University; and Richard Nickl, University of Cambridge

The Bruno de Finetti Lecture is by Mike West, Duke University.

The Susie Bayarri Lecture is by Pierre Jacob, Harvard University.

# Employment Opportunities

## Canada: Vancouver, BC

### University of British Columbia

Assistant Professor (AIM-SI) Tenure Track Position in Statistics

<https://jobs.imstat.org/job//59462863>

## Canada: Waterloo, ON

### University of Waterloo

Assistant Professors

<https://jobs.imstat.org/job//59479463>

## Canada: Waterloo, ON

### University of Waterloo

Assistant Professors

<https://jobs.imstat.org/job//59479364>

## Germany: Munich

### Technical University of Munich (TUM)

Associate Professor in Biostatistics and Clinical Epidemiology

<https://jobs.imstat.org/job//59209206>

## Hong Kong

### The University of Hong Kong

Tenure-Track Professor/Associate Professor/Assistant Professor in Business Analytics (several posts)

<https://jobs.imstat.org/job//59508402>

## Italy: Milan

### Bocconi University

Tenure Track Assistant Professor in Statistics

<https://jobs.imstat.org/job//59249794>

## Saudi Arabia: Thuwal-Jeddah

### King Abdullah University of Science and Technology

Faculty position in applied mathematics

<https://jobs.imstat.org/job//59107978>

## Singapore

### Yale-NUS College

Lecturer in Mathematics, Computer Science, and Data Science

<https://jobs.imstat.org/job//59452184>

## Singapore

### Faculty Positions at the Department of Statistics & Data Science, National University of Singapore

The National University of Singapore intends to hire faculty members whose research focus is in **data science, broadly defined, and with interest or experience in big data analysis**. The positions can be at any level.

A PhD in statistics or a related field is required. The applicants should have demonstrated potential for excellence in research in data science, teaching and service. The shortlisting of candidates will begin in March 2022.

Applicants should send an application letter, a CV, a research statement and a teaching statement and arrange for at least THREE reference letters to be sent directly to the Department of Statistics & Data Science.

Applications should be mailed by post or via e-mail to:

*Search Committee  
Department of Statistics & Data Science  
National University of Singapore  
6 Science Drive 2  
Singapore 117546*

E-mail: [muslihah@nus.edu.sg](mailto:muslihah@nus.edu.sg)

NUS offers internationally competitive remuneration, generous research support and funding, relocation assistance and other benefits. The Department of Statistics & Data Science has close to 30 faculty. We provide a stimulating environment for our faculty to develop professionally. For more information about the University, Department and Terms of Service, please visit our websites:

University: <http://www.nus.edu.sg/>

Department of Statistics & Data Science: <http://www.stat.nus.edu.sg/>



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Applications should be mailed by post or via e-mail to:

*Search Committee  
Department of Statistics & Data Science  
National University of Singapore  
6 Science Drive 2  
Singapore 117546*

E-mail: [muslihah@nus.edu.sg](mailto:muslihah@nus.edu.sg)

NUS offers internationally competitive remuneration, generous research support and funding, relocation assistance and other benefits. The Department of Statistics & Data Science has close to 30 faculty. We provide a stimulating environment for our faculty to develop professionally. For more information about the University, Department and Terms of Service, please visit our websites:  
University: <http://www.nus.edu.sg/>  
Department of Statistics & Data Science: <http://www.stat.nus.edu.sg/>

## 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](mailto:recruit@stat.sinica.edu.tw)

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

# Employment Opportunities continued

## Switzerland: Lausanne

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Two Bernoulli Instructorships in Analysis and in Statistics

<https://jobs.imstat.org/job//59366316>

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Chair or Readership in Statistics

<https://jobs.imstat.org/job//59359722>

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### Auburn University

Assistant Professor - Statistics/Data Science

<https://jobs.imstat.org/job//59135534>

## United States: Fayetteville, AR

### University of Arkansas Fayetteville

Assistant Professor

<https://jobs.imstat.org/job//59207664>

## United States: Tempe, AZ

### Arizona State University - School of Mathematical & Statistical Sciences

Postdoctoral Research Scholar

<https://jobs.imstat.org/job//59418710>

## United States: Berkeley, CA

### University of California Berkeley

Assistant Professor-Public Health Data Science-Berkeley School of Public Health

<https://jobs.imstat.org/job//59069978>

## United States: Berkeley, CA

### University of California Berkeley

Assistant/Associate/Full Professors - Computational Precision Health - UC Berkeley Division of Computing, Data Science, and Society; UCSF Bakar Computational Health Sciences Institute

<https://jobs.imstat.org/job//59427149>

## United States: Berkeley, CA

### of California, Berkeley Department of Statistics

Neyman Visiting Assistant Professor

<https://jobs.imstat.org/job//59442696>

## United States: Davis, CA

### University of California, Davis

Assistant Professor in Statistics

<https://jobs.imstat.org/job//59359655>

## United States: Hayward, Concord, CA

### California State University East Bay

Assistant Professor of Statistics and Biostatistics , Tenure-Track Faculty

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

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### University of California Los Angeles

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<https://jobs.imstat.org/job//59181210>

## United States: Los Angeles, CA

### University of California Los Angeles

Tenure-Track Assistant Professor position in Mathematics 2022-2023

<https://jobs.imstat.org/job//59181200>

## United States: Los Angeles, CA

### University of California Los Angeles

Open-Rank Professor of Biostatistics

<https://jobs.imstat.org/job//59356994>

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Assistant Professor in Statistics  
<https://jobs.imstat.org/job//59017916>

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<https://jobs.imstat.org/job//58486089>

**United States: Stanford, CA****Stanford University, Department of Statistics**

Stein Fellow in Statistics or Probability  
<https://jobs.imstat.org/job//58485986>

**United States: New Haven, CT****Yale University, Department of Statistics and Data Science**

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 Positions  
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**United States: Storrs, CT****University of Connecticut**

Assistant Professor in Data Science  
<https://jobs.imstat.org/job//59202605>

**United States: Storrs, CT****University of Connecticut**

Assistant Professor In Residence  
<https://jobs.imstat.org/job//59198277>

**United States: Ames, IA****Iowa State University**

Assistant Professor in Statistical Machine  
 Learning & Data Science  
<https://jobs.imstat.org/job//59372475>

**United States: Chicago, IL****University of Illinois at Chicago**

Assistant Professor in Statistics - Tenure  
 Track  
<https://jobs.imstat.org/job//59419871>

**United States: Chicago, IL****Department of Statistics**

William H. Kruskal Instructor, Statistics  
<https://jobs.imstat.org/job//59373591>

**United States: Chicago, IL****Department of Statistics**

Assistant Professor / Associate Professor /  
 Professor, Data Science  
<https://jobs.imstat.org/job//59373565>

**United States: Notre Dame, IN****University of Notre Dame**

Cluster Search in Data Science and Society  
<https://jobs.imstat.org/job//59069836>

**United States: West Lafayette, IN****Department of Statistics, Purdue University**

Assistant Professor of Statistics, Data  
 Science  
<https://jobs.imstat.org/job//59065075>

**United States: West Lafayette, IN****Department of Statistics, Purdue University**

Associate Professor of Statistics  
<https://jobs.imstat.org/job//59065014>

**United States: West Lafayette, IN****Department of Statistics, Purdue University**

Assistant Professor of Practice in Statistics  
<https://jobs.imstat.org/job//59064969>

**United States: West Lafayette, IN****Department of Statistics, Purdue University**

Lecturer, Statistics  
<https://jobs.imstat.org/job//59064918>

**United States: West Lafayette, IN****Department of Statistics, Purdue University**

Assistant Professor of Statistics  
<https://jobs.imstat.org/job//59064796>

**United States: Lexington, KY****University of Kentucky, Dr. Bing Zhang**

**Department of Statistics**  
 Assistant Professor – Statistics  
<https://jobs.imstat.org/job//58805855>

**United States: Boston, MA****Boston University**

Associate Professor of the Practice  
<https://jobs.imstat.org/job//59346442>

**United States: College Park, MD****University of Maryland, Department of****Mathematics**

Assistant Professor in Data Science  
<https://jobs.imstat.org/job//59212255>

**United States: Minneapolis, MN****University of Minnesota, School of Statistics**

Tenure Track Assistant Professor  
<https://jobs.imstat.org/job//58348246>

**United States: Saint Louis, MO****Washington University in St. Louis (WUSTL),****Department of Mathematics and Statistics**

Open Rank Professor, Targeting Specialists  
 in Data Science  
<https://jobs.imstat.org/job//59283799>

**United States: Chapel Hill, NC****UNC Chapel Hill**

Faculty Positions in Statistics and  
 Operations Research  
<https://jobs.imstat.org/job//59136489>

**United States: Durham, NC****Fuqua School of Business, Duke University**

Assistant Faculty Positions  
<https://jobs.imstat.org/job//50588894>

**United States: Newark, NJ****New Jersey Institute of Technology**

Tenure-track Assistant/Associate Professor  
<https://jobs.imstat.org/job//59372039>

# Employment Opportunities continued

## United States: Philadelphia, PA

### Wharton Department of Statistics and Data Science University of Pennsylvania

#### Departmental Postdoctoral Researcher

The Department of Statistics and Data Science of the Wharton School, University of Pennsylvania, is seeking candidates for a Postdoctoral Researcher position in the area of statistics with a focus on high-dimensional statistics, machine learning, and/or applications in genomics. The position is designed to be a career-building step for new scholars. The primary focus is for the scholar to develop her or his research program. A light teaching load will also be part of the position. The position will start in Summer 2022 and continue for two years with a possible extension to three years. A competitive salary will be provided.

Candidates should show outstanding capacity for research, as well as excellent communication skills. Applicants must have a Ph.D. in statistics or a related field from an accredited institution.

Please visit our website, <https://statistics.wharton.upenn.edu/recruiting/dept-postdoc-position>, for a description of the department and link to submit a CV and other relevant material. Applications are considered on a rolling basis.

Any questions can be directed to [stat.postdoc.hire@wharton.upenn.edu](mailto:stat.postdoc.hire@wharton.upenn.edu).

The University of Pennsylvania is an EOE. Minorities / Women / Individuals with disabilities / Protected Veterans are encouraged to apply.

## United States: Las Cruces, NM

### New Mexico State University

Assistant Professor in Applied Statistics  
<https://jobs.imstat.org/job//59207470>

## United States: New York, NY

### Columbia

Associate Research Scientist  
<https://jobs.imstat.org/job//59370734>

## United States: New York, NY

### Columbia Graduate School of Business

Assistant/Associate Professor  
<https://jobs.imstat.org/job//59257015>

## United States: Cleveland, OH

### Cleveland State University

Assistant Professor in Applied Statistics, Data Analytics, or Biostatistics  
<https://jobs.imstat.org/job//59479727>

## United States: Eugene, OR

### UO Data Science Initiative

Assistant Professor  
<https://jobs.imstat.org/job//59335570>

## 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: Edinburg, TX

### University of Texas Rio Grande Valley

Assistant Professor-Statistics in the College of Sciences/School of Mathematical and Statistical Sciences  
<https://jobs.imstat.org/job//59208411>

## United States: Charlottesville, VA

### University of Virginia

Elcan Jefferson Scholars Foundation Distinguished Professorship  
<https://jobs.imstat.org/job//59476817>

## United States: Charlottesville, VA

### University of Virginia

Assistant Professor  
<https://jobs.imstat.org/job//59476474>

## United States: Seattle, WA

### University of Washington, Department of Statistics

Assistant or Associate Teaching Professor in Statistics  
<https://jobs.imstat.org/job//59294268>

## United States: Seattle, WA

### University of Washington

Open Rank Faculty  
<https://jobs.imstat.org/job//59416507>

## United States: Seattle, WA

### University of Washington

Assistant Teaching Professor  
<https://jobs.imstat.org/job//59335570>


## United States: Madison, WI

### University of Wisconsin–Madison Department of Statistics

Assistant Professor, Associate Professor, and Professor In Statistics  
<https://jobs.imstat.org/job//59427536>



# 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: [ims@imstat.org](mailto:ims@imstat.org)

At the time of writing, some meetings are known to be  or canceled. Where new dates are known, they are included here. Some meetings, marked , 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 YoungStatS Webinar series **w** <https://youngstats.github.io/categories/webinars/>



  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>

## December 2021


 December 3–5: Las Vegas, USA. **Frontier Probability Days** **w** <http://lechen.faculty.unlv.edu/FPD20/>


  December 13: online. **Advances in Difference-in-Differences in Econometrics (8th YoungStatS One World webinar)** **w** <https://youngstats.github.io/post/2021/09/30/advances-in-difference-in-differences-in-econometrics/>

## January 2022

  January 4–7 (postponed to January 2023): 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 21–May 27: Chicago, IL, USA. **Decision Making and Uncertainty** **w** <https://www.imsi.institute/activities/decision-making-and-uncertainty/>

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


## April 2022

 April 25–29: Nicosia, Cyprus. **BNP Networking Event** **w** TBC

## May 2022

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


## June 2022

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

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

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

 June 25–July 1: Montreal, Canada. **ISBA World Meeting 2022** **w** <https://isbawebmaster.github.io/ISBA2022>

 June 27–30: London, UK. **IMS Annual Meeting** **w** [www.imsannualmeeting-london2022.com](http://www.imsannualmeeting-london2022.com)

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

# International Calendar *continued*

## 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](http://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://www2.amstat.org/meetings/jsm/2022/>

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

## September 2022

 September 7–10: UC Santa Cruz, CA, USA. **O'Bayes 2022**  
**w** <https://obayes.soe.ucsc.edu/>

## October 2022

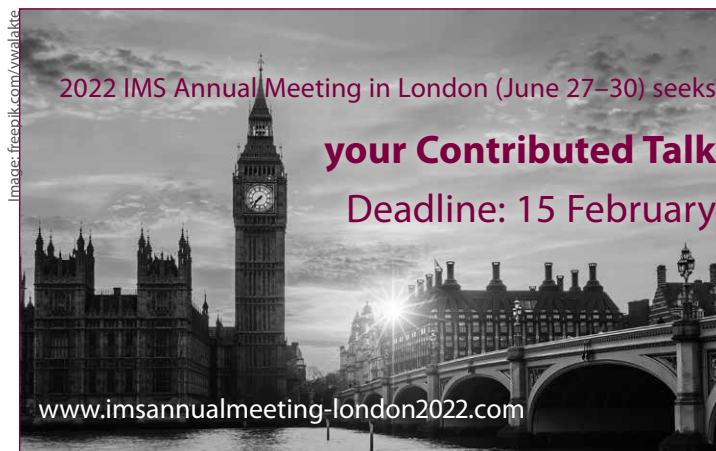
 October 24–28: Puerto Varas, Chile. **BNP13: Bayesian Nonparametrics** **w** <https://midas.mat.uc.cl/bnp13/>

## December 2022

  December 13–16: Florence, Italy. **IMS International Conference on Statistics and Data Science (ICSDS)**  
**w** <https://sites.google.com/view/icsds2022>

## January 2023

 January dates TBC (postponed from January 2022): Melbourne, Australia. **IMS Asia Pacific Rim Meeting (IMS-APRM2021)** **w** <http://ims-aprm2021.com/>




## July 2023

July 15–20: Ottawa, Canada. **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>

## July 2024


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

## 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>

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### Journals

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3: April/May	<b>March 15</b>	April 1	April 15
4: June/July	<b>May 1</b>	May 15	June 1
5: August	<b>July 1</b>	July 15	August 1
6: September	<b>August 15</b>	September 1	September 15
7: Oct/Nov	<b>September 15</b>	October 1	October 15
8: December	<b>November 1</b>	November 15	December 1

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**January/  
February  
2022**

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# STATISTICAL SCIENCE

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