



October/November 2018

CONTENTS

- 1 **Donoho receives Gauss Award at ICM**
- 2–3 **Members' news: COPSS Awards:** Richard Samworth, Bin Yu, Susan Murphy; CR Rao, Herman Chernoff, DJ Finney
- 4 **Interview: Richard Samworth**
- 5 **COPSS Award nominations**
- 6 **How to nominate a Fellow**
- 7 **Other IMS Award nominations**
- 9 **More nominations: Parzen Prize, Newbold Prize**
- 10 **Report on WNAR/IMS Meeting**
- 11 **Student Puzzle Corner**
- 12 **Recent papers:** *Annals of Statistics; Annals of Applied Statistics*
- 14 **Treasurer's Report 2017**
- 16 **Meetings**
- 20 **Employment Opportunities**
- 24 **International Calendar of Meetings**
- 27 **Information for Advertisers**

**Read it online:
bulletin.imstat.org**



David Donoho's Gauss Award

David Donoho is the recipient of the 2018 Carl Friedrich Gauss Prize, the major prize in applied mathematics awarded jointly by the International Mathematical Union (IMU) and the German Mathematical Union.

Bestowed every four years since 2006, the prize honors scientists whose mathematical research has generated important applications beyond the mathematical field—in technology, in business, or in people's everyday lives—and this award acknowledges David's impact on a whole generation of mathematical scientists.

David Donoho was commended by the IMU President Shigefumi Mori for his “fundamental contribution to mathematics” during the opening ceremony of ICM 2018 in Rio de Janeiro, Brazil.

After the award was announced, David spoke of the joy he has experienced when theories he has developed earlier in his career are applied to everyday life. “There are things I've done decades ago, and when I see things happen in the real world, it makes me so proud. The power we have in moving the world gives me a great deal of satisfaction in my career choice.”

He said that a career in math is not limited to pure math, and publication in journals. “There are so many relations between math and the rest of the world. We see more and more relations over time; so much in the modern world is underpinned by math,” he said, citing the example of smartphones, and the vast level of mathematical fundamentals intertwined, such as prime factorization.

David Donoho, who was born in California in 1957, dedicates his professional life to statistics, information theory and applied mathematics. He has made fundamental contributions to theoretical and computational statistics throughout his career, as well as to signal processing and harmonic analysis. His algorithms have made significant contributions to the understanding of the maximum entropy principle, the structure of robust procedures, and sparse data description.

David Donoho is the Anne T. and Robert M. Bass Professor in the Humanities and Sciences, and Professor of Statistics, at Stanford University; he previously taught at UC Berkeley, and he holds a *summa cum laude* degree from Princeton University, as well as a PhD in statistics from Harvard University. He has worked in various industries, including oil exploitation, information technology, and quantitative finance. He has previously been awarded the MacArthur Fellowship (1991), the COPSS Presidents' Award (1994), the Norbert Wiener (2010), and the Shaw Prize (2013).

The Gauss prize is a tribute to the German mathematician Carl Friedrich Gauss (1777–1855), who made important contributions to number theory, statistics, mathematical analysis, differential geometry, geophysics, astronomy and optics.



David Donoho. Photo: IMU

Contact information

Managing Editor: T.N. Sriram
Assistant Editor: Tati Howell
Contributing Editors:
Anirban DasGupta, Yoram Gat, David Hand, Takis Konstantopoulos, Xiao-Li Meng, Regina Nuzzo, Dimitris Politis, Kavita Ramanan and Terry Speed

Contact the IMS Bulletin by email:

e bulletin@imstat.org
w <http://bulletin.imstat.org>
f <https://www.facebook.com/IMSTATI>

Contact the IMS regarding your dues, membership, subscriptions, orders or change of address:

✉ IMS Dues and Subscriptions Office
9650 Rockville Pike, Suite L3503A
Bethesda, MD 20814-3998
USA

t 877-557-4674 [toll-free in USA]
t +1 216 295 5661 [international]
f +1 301 634 7099
e staff@imstat.org

Contact the IMS regarding any other matter, including advertising, copyright permission, offprint orders, copyright transfer, societal matters, meetings, fellows nominations and content of publications:

✉ Executive Director, Elyse Gustafson
IMS Business Office
t 877-557-4674 [toll-free in USA]
t +1 216 295 2340 [international]
f +1 216 295 5661
e erg@imstat.org

Executive Committee

President: Alison Etheridge
president@imstat.org
President-Elect: Xiao-Li Meng
president-elect@imstat.org
Past President: Jon Wellner
president-past@imstat.org
Treasurer: Zhengjun Zhang
zjz@stat.wisc.edu
UPDATED Program Secretary: Ming Yuan
ming.yuan@columbia.edu
Executive Secretary: Edsel Peña
pena@stat.sc.edu

IMS Members' News

Statisticians honored by COPSS at JSM2018

Wendy Lou, COPSS Secretary/Treasurer, writes: The Committee of Presidents of Statistical Societies (COPSS) presents awards annually to honor statisticians who have made outstanding contributions to the profession of statistics. For 2018, three awards were presented, during the Joint Statistical Meetings in Vancouver, BC.



Richard J. Samworth:
COPSS Presidents' Award

Richard J. Samworth of the University of Cambridge is the recipient of the 2018 Presidents' Award. This award is presented annually to a young member of one of the participating societies of COPSS in recognition of outstanding contributions to the profession of statistics. The award citation recognized Samworth "for fundamental contributions to nonparametric inference under shape constraints, nonparametric classification, high-dimensional variable selection and change point estimation; for many substantial contributions to the profession including editorial service, extensive service to statistical societies; and for the training and mentoring of junior researchers". Also a recipient of the Royal Statistical Society's Research Award and the Guy Medal in Bronze, Samworth gave an IMS Medallion Lecture at the 2018 IMS Vilnius meeting in July. He is highly regarded as "among the most creative statisticians of his age, whose research has great impact to statistics, machine learning, and data science", and as "a truly superb mentor and advisor for many young and brilliant people". Richard is interviewed on page 4.

Bin Yu of the University of California at Berkeley is the recipient of the 2018 Elizabeth L. Scott Award. This award is granted biennially to an individual, male or female, who has helped foster opportunities in statistics for women. The award citation recognized Yu "for principled leadership in the international scientific community; for commitment and actions towards diversity, equity and inclusion; for consistently mentoring and encouraging women students and new researchers in statistics and data science; and for scientific contributions to statistical and machine learning methodology at the highest scholarly level". Yu has served as President of IMS, and is a member of the National Academy of Science and the American Academy of Arts and Sciences. She is described as "a powerful voice for women's advancement in the statistics, mathematics, and scientific community". In receiving her award, she encouraged seeking "truth by claiming statistics' central position in data science, and by embracing new statistical issues such as algorithm fairness, privacy, cyber-security, interpretability of machine learning and AI, and accurate election prediction." As a graduate and a faculty member of the department of which Elizabeth L. Scott was one of the founding members, Yu expressed gratitude that the award "is also recognition of the Berkeley Statistics community: its past and current faculty, students, postdocs, staff and visitors for creating and sustaining an open and inclusive intellectual and human environment."



Bin Yu, Elizabeth L. Scott
Award

Susan A. Murphy of Harvard University is the recipient of the 2018 R.A. Fisher Award and Lectureship, which honors both the contributions of Sir Ronald Aylmer Fisher and the work of a present-day statistician for advancement of statistical theory and applications. This annual award recognizes outstanding scholarship in statistical sciences that has had

Continues on page 3

Continued from page 2

a highly significant impact of statistical methods on scientific investigations. The award citation recognized Murphy “for scientific contributions to statistical theory and methods at the highest level and for fundamental advances in the innovative use of statistics to further behavioral and mental health research”. Murphy is a member of the National Academy of Sciences and the National Academy of Medicine, and she is currently President-Elect of IMS. She is hailed as “one of the most outstanding scientists in our discipline”, and “her work has the potential to revolutionize the conduct of health sciences research”. In her lecture, she discussed the design, implementation and other statistical considerations related to mobile health research, and aspired “to use statistics and mathematics to impact behavioral science”.

The slides of her Fisher Lecture, entitled “The Future: Stratified Micro-Randomized Trials with Applications in Mobile Health”, can be downloaded at <http://people.seas.harvard.edu/~samurphy/seminars/Fisher08.2018.pdf>.

The webcast of the COPSS award ceremony and the Fisher Lecture is available at https://www.youtube.com/watch?v=kRUyrDQqoSc&t=0s&index=2&list=PL9G4n1wtRTDR-EE27dOUQr_Z1JHHP9OH.

These awards are jointly sponsored by the original JSM societies: IMS, the American Statistical Association (ASA), the Eastern and Western Regions of the International Biometric Society (ENAR and WNAR), and the Statistical Society of Canada (SSC).

Nominations are sought for the 2019 awards [see page 5], and information on award criteria and nomination procedures are available at the COPSS website <http://copss.org>.

Senior statisticians celebrate birthdays

We extend our congratulations to two former IMS Presidents, **C.R. Rao**, who recently celebrated his 98th birthday, on September 10, and **Herman Chernoff**, who turned 95 in July. Anirban DasGupta noted that Professors Rao and Chernoff are among the two most senior (in age) living statisticians, along with **David Finney**, who is now 101.

D.J. Finney CBE, FRS, FRSE, is Professor Emeritus of Statistics at the University of Edinburgh. He was Director of the Agricultural Research Council's Unit of Statistics from 1954–84 and a former President of the Royal Statistical Society and of the Biometric Society. He was a pioneer in the development of systematic monitoring of drugs for detection of adverse reactions. He turned 100 in January 2017.

C.R. Rao has made research contributions in estimation theory, statistical inference and linear models, multivariate analysis, combinatorial design, orthogonal arrays, biometry, statistical genetics, generalized matrix inverses, functional equations, diversity indices and the differential metric. Among his many honors are: RSS Guy Medals in Gold and in Silver; the US National Medal of Science; the Indian Government's India Science Award, Padma Vibhushan and Padma Bhushan; ISI's International Mahalanobis Prize; ASA's Wilks Memorial Award; and honorary doctorates from several universities and institutes.

Herman Chernoff is Professor Emeritus of Applied Mathematics (MIT) and of Statistics (Harvard). His major fields of research have been in large sample theory, optimal design of experiments, sequential analysis, and sequential design of experiments. His honors include the Townsend Harris Medal, the Wilks Medal, Statistician of the Year from the Boston Chapter of the ASA, election to the National Academy of Sciences, American Academy of Arts and Sciences, ISI and Sigma Chi, and Fellow of ASA and IMS.



Susan A. Murphy:
R.A. Fisher Award and
Lectureship

= access published papers online

IMS Journals and Publications

Annals of Statistics: Ed George and Tailen Hsing

<http://imstat.org/aos>

<http://projecteuclid.org/aos>

Annals of Applied Statistics: Tilmann Gneiting

<http://imstat.org/aoas>

<http://projecteuclid.org/aoas>

Annals of Probability: Amir Dembo

<http://imstat.org/aop>

<http://projecteuclid.org/aop>

Annals of Applied Probability: Bálint Tóth

<http://imstat.org/aap>

<http://projecteuclid.org/aap>

Statistical Science: Cun-Hui Zhang

<http://imstat.org/sts>

<http://projecteuclid.org/ss>

IMS Collections

<http://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

<http://imstat.org/ejs>

<http://projecteuclid.org/ejs>

Electronic Journal of Probability: Andreas Kyprianou

<http://ejp.ejpecp.org>

Electronic Communications in Probability:

Giambattista Giacomini

<http://ecp.ejpecp.org>

Journal of Computational and Graphical Statistics:

Diane Cook

<http://www.amstat.org/publications/jcgs>

log into members' area at imstat.org

Statistics Surveys: David Banks

<http://imstat.org/ss>

<http://projecteuclid.org/ssu>

Probability Surveys: Ben Hambly

<http://imstat.org/ps>

<http://www.i-journals.org/ps/>

IMS-Supported Journals

ALEA: Latin American Journal of Probability and Statistics: Victor Perez Abreu

<http://alea.impa.br/english>

Annales de l'Institut Henri Poincaré (B): Gregory

Miermont, Christophe Sabot <http://imstat.org/aihpc>

<http://projecteuclid.org/aihpc>

Bayesian Analysis: Bruno Sansó

<https://projecteuclid.org/euclid.ba>

Bernoulli: Holger Dette

<http://www.bernoulli-society.org/>

<http://projecteuclid.org/bj>

Brazilian Journal of Probability and Statistics:

Francisco Louzada Neto <http://imstat.org/bjps>

<http://projecteuclid.org/bjps>

IMS-Affiliated Journals

Observational Studies: Dylan Small

<https://obsstudies.org/>

Probability and Mathematical Statistics: K. Bogdan,

M. Musiel, J. Rosiński, W. Szczotka, & W.A. Woyczyński

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

Stochastic Systems: Shane Henderson

<http://www.i-journals.org/ssy/>

Richard Samworth: COPSS Presidents' Award



Richard J. Samworth of the University of Cambridge is the recipient of the 2018 Presidents' Award. This award is presented annually to a young member of one of the participating societies of COPSS in recognition of outstanding contributions to the profession of statistics. The award citation recognized Samworth *"for fundamental contributions to nonparametric inference under shape constraints, nonparametric classification, high-dimensional variable selection and change point estimation; for many substantial contributions to the profession including editorial service, extensive service to statistical societies; and for the training and mentoring of junior researchers"*.

Professor Samworth graciously agreed to be interviewed by Wendy Lou, Secretary/Treasurer of COPSS:

What was your first reaction to winning the prestigious COPSS Presidents' Award?

I was so shocked that, looking back, I'm relieved no bad words slipped out! Obviously, I was delighted: it's really a great honour for me to join such a distinguished list of statisticians.

Which part of your job do you like the most?

The time I spend doing research with my PhD students and post-docs is what I enjoy most. They make me a better researcher and frequently amaze me with what they are able to accomplish. I love seeing them develop and grow in confidence.

What advice would you give to young people who are entering the profession as PhD students and assistant professors at this time?

First, congratulations! It's a great time to be entering the profession and it's wonderful to see the importance of Statistics finally being recognised. For PhD students, the choice of advisor is probably the most important decision. Different people look for different things, but I'd say that ideally, you want a strong researcher who will take an active interest in your research and development. For assistant professors, the main challenge is often to maintain your research momentum and enhance your visibility while also getting up to speed with the other duties of the role. Senior colleagues can often be a great source of advice; personally, I feel I benefited enormously from the travel opportunities that arose at that stage.

Who are your most significant mentors, and how did/do they impact your career?

My PhD supervisor, Alastair Young, helped greatly at the beginning and even now we enjoy going out for an occasional curry. Alastair introduced me to Peter Hall, who I visited twice at the Australian National University in Canberra and once at the University of Melbourne. As everyone knows, Peter was a remarkable person; we wrote two papers together and I learnt a great deal from working with him. More recently, Peter Bühlmann, Ray Carroll, Lutz Dümbgen, Jianqing Fan and Jon Wellner are just some of the many people who have inspired me and supported my career.

Why were you drawn to nonparametric inference? How did you start to work on shape-constrained estimation problems?

Like many statisticians, I often find myself questioning whether our assumptions are realistic, so I was very attracted to the flexibility of nonparametric methods. I first started thinking about shape-constrained estimation problems when Michael Stewart came to visit me in 2005. I became really excited about the prospect of having the best of both the nonparametric and parametric worlds: the modelling flexibility of an infinite-dimensional class, together with the potential to obtain estimation procedures that don't require the choice of tuning parameters.

Anything else you will like to share about our profession?

Many people at the moment are rightly considering the position of Statistics within the brave new world of data science, and some are fearful that we may even become obsolete. I do think it's important that we continue to ask what skills we need to acquire and teach in order to remain relevant, but overall I'm pretty optimistic about our future. My personal experience is that our skills are appreciated now more than ever.

Finally, what are your hobbies and interests beyond statistics?

Sport is really my first love. When I was younger I used to play a lot, particularly typically British sports like cricket, rugby, golf and football (soccer!). A rugby injury around 20 years ago put paid to that, though. These days, I still watch quite a bit when I can, and have fun giving various challenges to visitors. These can range from kneeling on a fit ball, to throwing juggling balls off the wall above a door and catching them behind your back as you walk through, to chipping a sponge ball with a golf club so that it clears one room but stops before reaching the end of the adjoining one. I'm sure they all sound completely crazy, but I like to think quite a lot of statisticians will be able to remember some good times attempting them!

Nominate 2019 COPSS Awards

A little (more) about Richard J. Samworth

Richard was born in Newport Pagnell, UK, and obtained his BA in Mathematics (1999), MMath (2000) and PhD in Statistics (2004) from the University of Cambridge. Following a Research Fellowship at St John's College, Cambridge, he was appointed as Lecturer in Statistics in the Statistical Laboratory at the University of Cambridge in 2005, before being promoted to Reader (2010) and then Professor of Statistics (2013). In 2017, he became the Professor of Statistical Science, as well as the Director of the Statistical Laboratory. He remains a Fellow of St John's College, is a Faculty Fellow at the Alan Turing Institute, and holds a Fellowship from the Engineering and Physical Sciences Research Council.

Richard's main research interests are in developing methodology and theory in nonparametric and high-dimensional statistics. He has made particular contributions to log-concave density estimation, k -nearest neighbour methods for classification and entropy estimation, high-dimensional changepoint estimation and data perturbation methods (e.g. subsampling, random projections) for problems in high-dimensional inference such as variable selection or sparse Principal Component Analysis. He has also worked in various application areas, including cancer genetics, oceanography and archaeology.

Richard has served on the editorial boards of the *Annals of Statistics*, the *Journal of the Royal Statistical Society Series B*, the *Journal of the American Statistical Association*, *Biometrika*, *Statistical Science*, *Statistica Sinica* and the *SIAM Journal on Mathematics of Data Science (SIMODS)*. He will begin a term as co-editor of the *Annals of Statistics* (with Ming Yuan) from 1 January 2019.

Prior to this latest award, Richard received the Royal Statistical Society's Research Prize in 2008 and Guy Medal in Bronze in 2012; the Philip Leverhulme Prize in 2014 and the Adams Prize in 2017. He became an IMS Fellow in 2014, an ASA Fellow in 2015, and gave an IMS Medallion lecture at the IMS Annual Meeting in Vilnius in 2018.

Each year, the statistical profession recognizes outstanding members at the Joint Statistical Meetings in an awards ceremony organized by the Committee of Presidents of Statistical Societies (COPSS). Nominations are an important part of the process, and everyone can contribute—from the newest to most senior members of our societies. We recognize excellence in our mentors, colleagues, and friends, and it is important to single out those who have made exceptional contributions to the profession. So take a few minutes, review the various COPSS Awards for 2019, and see if you can identify worthy individuals.

Four COPSS awards will be presented at the 2019 JSM in Denver, Colorado, which will take place July 27–August 1, 2019.

The **Fisher Award and Lectureship** is awarded yearly for outstanding contributions to aspects of statistics and probability that closely relate to the scientific collection and interpretation of data. The award exists to recognize the importance of statistical methods for scientific investigations. The awardee's hour-long lecture is delivered during JSM. Eligible nominations should be sent **by December 15, 2018**, to the Fisher Award Committee Chair or the COPSS Secretary.

The **Presidents' Award** is presented yearly in recognition of outstanding contributions to the statistics profession. It is typically granted to an individual who has not yet reached his or her 41st birthday. In the special case of an individual who has received his or her statistically related terminal degree fewer than 12 years prior to the nomination deadline, the individual will be eligible if he or she has not yet reached his or her 46th birthday during the year of the award. Nominations should be sent **by January 15, 2019**, to the Presidents' Award Committee Chair or the COPSS Secretary.

The **Florence N. David Award** is presented biennially (odd numbered years) to a female statistician who serves as a role model to other women by her contributions to the profession through excellence in research, leadership of multidisciplinary collaborative groups, statistics education, or service to the professional societies. **The awardee will deliver the newly established Florence N. David Lecture during the 2019 JSM.** Nominations should be submitted **by December 15, 2018**, to the Florence N. David Award Committee Chair or the COPSS Secretary.

The **George W. Snedecor Award** is presented biennially (odd numbered years) to honor an individual who has been instrumental in the development of statistical theory in biometry and with a noteworthy publication in biometry within three years of the date of the award. Nominations should be submitted **by January 15, 2019**, to the G.W. Snedecor Award Committee Chair or the COPSS Secretary.

These awards are jointly sponsored by the American Statistical Association (ASA), Institute of Mathematical Statistics (IMS), Eastern and Western Regions of the International Biometric Society (ENAR and WNAR), and the Statistical Society of Canada (SSC). They represent a discipline-wide acknowledgment of the outstanding contributions of statisticians, regardless of their affiliations with any professional society. For more information, please visit the COPSS website <http://copss.org>.

Nominating a Fellow? Here's how to choose

Go forth and nominate!

Past President Alison Etheridge writes: *In my Presidential address [see the previous issue], I called upon everyone to be more proactive in seeking diverse nominations to Fellowship of the IMS. As the excitement of handing the gavel over to Xiao-Li subsided, I tried to put some more thought into understanding why nominations do not reflect the diversity of our community. A first step was to think of some people who I felt should be nominated. I quickly realised that I was not clear what a strong nomination would look like (and I was not really much the wiser having looked at the official guidance on the IMS webpages). How many people, I wondered, know what “makes” an IMS Fellow? This affects both nominators and nominees (if I don't look like a current Fellow, I won't allow my name to go forward). I did come across a 2015 Bulletin article on Fellows, but it listed the achievements of some of the giants of our profession; I was proud that they were IMS Fellows, but I didn't think that their achievements should set the bar!*

Recognising that I needed help, I contacted Philip Protter, a past Chair of the Committee on Fellows. He generously agreed to write the piece below. I hope that you find it as useful as I do, and that many of you will be inspired to submit nominations.

Details of how to do so can be found at <https://www.imstat.org/honored-ims-fellows/nominations-for-ims-fellow/>. The deadline is January 31.

Philip Protter, who is himself an IMS Fellow, has some words of advice for anyone who is wondering how to choose someone to nominate to be a Fellow of the IMS:

The guidance regarding the nomination of scholars to become Fellows of the IMS given by the IMS itself is rather minimal. It consists of two instructions:

- (1) a candidate of well-established leadership whose contributions to the field of statistics or probability other than original research shall be judged of equal value; or
- (2) a candidate of well-established leadership in the application of statistics or probability, whose work has contributed greatly to the utility of and the appreciation of these areas.

Perhaps it is wise to flesh out these instructions a little. First of all, the naming of a Fellow serves two purposes. It bestows an honor on the recipient, and it also reciprocally bestows an honor on the IMS. The more prestigious is the collection of Fellows, the greater is the honor bestowed both on the new Fellows and also on the IMS. Therefore, it makes sense to nominate someone whose work you, as the nominator, think is of exceptionally high quality.

There are many ways to judge quality.

The easiest ways are indirect. One can count the number of publications, one can verify that the journals in which the candidate has published are considered to be high quality journals, one can look at the number of citations using the Web of Science or Google Scholar, for example. One can check the candidate's “institutional authority,” by seeing what university or research institute he or she works at and assessing its prestige. All of these are poor as direct methods, and should be used only as external signifiers to validate in some sense a case of merit that has been well argued.

The true way to do this is for the nominator himself or herself to assess the contributions of the candidate's work. Has she solved some important problem, developed a new technique, taken a new and innovative approach, had seminal work that has inspired the work of others? These justifications can be detailed in the nominator's letter and echoed in the supporting letters of other scholars.

There are additional reasons to nominate someone to be a Fellow. One can be a leader in research in terms of one's publications, sure, but one can be a leader in the community in other ways. A person who has many successful PhD students, for

example, is contributing to the health of our profession.

One could be a superb mentor to young researchers, trying to guide them through the hornet's nest of forging a career at a time when some referees and even some journal Editors are more consumed with venting spleen than with promoting the collective effort to advance knowledge. An editor who works with a new PhD to help her to improve her first papers is a hero to the community more than an editor who is quick to reject (and thereby discourage) with the idea of pursuing some elusive goal of ensuring quality.

One can contribute to the collective good of the community in several other ways as well. At times, there are individuals whose ability in typically unheralded areas can be profound. These can be organizational (such as organizing conferences, workshops, creating new journals, creating new sub-groups of societies, etc.) or by lending aid to scientifically deprived regions or countries.

Most of us might agree it is better to live in a society that provides health care and does not have people dying on the street left unattended. By analogy, and more subtle perhaps, is the desire to live in

a society where the population is educated and perhaps even has a good grasp on the concept of randomness.

Even as an education helps one to appreciate modern art, knowing calculus and basic probability and statistics is helpful (in my personal view) towards the ability to live and to enjoy a full life. Education is a social good of the first order and there are remarkable individuals who devote considerable effort towards facilitating the education of others.

There is an aspect of the nomination of Fellows that needs to be mentioned, and that is the aspect of diversity. There is always the sinister suspicion that diversity somehow lowers the “quality” of the collection of Fellows, since we need to lower our otherwise exacting standards to include those who do not fit our model of what a Fellow should be. This is foolishness.

There is an old saying, “God created man in his own image, and man, being a gentleman, returned the compliment.” In that spirit, a lot is to be said for those nominators who can escape the dominant paradigm of choosing Fellows who resemble the existing Fellows, in favor of a more original idea of what a Fellow should be, by rethinking the rubric to include the contributions in a wholistic sense and looking at the contributions of a person not only in terms of scholarship, but, in addition, in terms of an entire contribution of the welfare of our probabilistic and statistical community of scholars, all trying to advance the collective effort of knowledge and understanding, thereby making the world a better place.

In this sense, gender diversity and racial diversity play an important role. A diverse collection of Fellows encourages young researchers who intellectually and physically resemble some of the Fellows to continue and to aspire to do great things with their lives, both intellectually and otherwise.

Nominate for IMS Awards

It's time to think about nominating your outstanding colleagues and collaborators for these IMS awards: Tweedie award, Carver medal and IMS Fellowship.

The **Tweedie New Researcher Award** funds travel to present the Tweedie New Researcher Invited Lecture at the IMS New Researchers Conference. It was created in memory of Richard Tweedie, who mentored many young colleagues. New researchers (who received their PhD in 2013–2018), who are members of IMS, are eligible. The nomination deadline is December 1, 2018. See <https://www.imstat.org/ims-awards/tweedie-new-researcher-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. All nominations must be received by February 1, 2019. Please visit <https://www.imstat.org/ims-awards/harry-c-carver-medal/>.

A candidate for the **IMS Fellowship** [see Philip Protter's article on the previous page] shall have demonstrated distinction in research in statistics or probability, by publication of independent work of merit. This qualification may be partly or wholly waived in the case of either a candidate of well-established leadership whose contributions to the field of statistics or probability other than original research shall be judged of equal value; or a candidate of well-established leadership in the application of statistics or probability, whose work has contributed greatly to the utility of and the appreciation of these areas. Candidates for fellowship should be members of IMS when nominated (you can email Elyse Gustafson erg@imstat.org to check this before you start). The nomination deadline is January 31, 2019. For nomination requirements, see <https://www.imstat.org/honored-ims-fellows/nominations-for-ims-fellow/>.

Apply for IMS Travel Awards

Applications are open for two types of 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 travel award is available to *IMS members who are graduate students (seeking a Masters or PhD degree) studying some area of statistical science or probability*. If you are a New Researcher (awarded your PhD in 2013–18) looking for travel funds, 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 (apart from the IMS New Researcher's Conference, which is funded separately). Applicants for both these travel awards must be members of IMS, though joining at the time of application is allowed (student membership is free, and new graduate membership discounted!). The application deadline for both is February 1, 2019. See <https://www.imstat.org/ims-awards/ims-hannan-graduate-student-travel-award/> and <https://www.imstat.org/ims-awards/ims-new-researcher-travel-award/> for details.



NSF
•
CBMS

NSF – CBMS

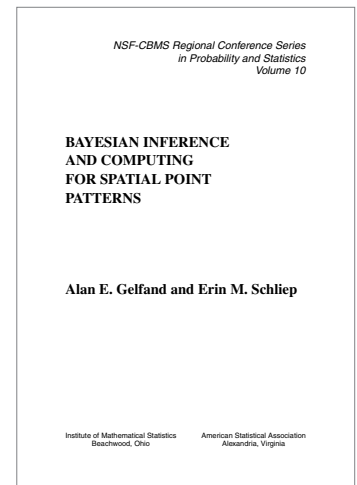
Regional Conference Series in Probability and Statistics

Volume 10

Bayesian Inference and Computing for Spatial Point Patterns

*by Alan E. Gelfand, Duke University,
and Erin M. Schliep, University of Missouri*

This monograph results from a CBMS short course given by Alan Gelfand at the University of California at Santa Cruz in August 2017. It extracts a portion of the lecture material that focuses on spatial point patterns, and substantially expands it, in addition to providing introductory material. The decision to focus on spatial point pattern models reflects the fact that this area of spatial analysis has, arguably, received the least attention in the literature, and even less within the Bayesian community. At this point, the other, more mainstream spatial and spatio-temporal material is discussed and readily available in many books. The monograph provides a forum for presentation of novel Bayesian inference and model fitting material which has been very recently developed by Gelfand and collaborators. This material is predicated on an assumption which currently drives much Bayesian work: if you can fit a Bayesian model and if you can simulate realizations of the model, you can do full Bayesian inference under the model.



Read the preface at <https://projecteuclid.org/euclid.cbms/1530065033>

Order your copy of *Bayesian Inference and Computing for Spatial Point Patterns* now (softcover, US\$80.00)

**Price
US\$80**

Order online:

<https://projecteuclid.org/euclid.cbms/1530065028>

Call for Nominations: Parzen Prize

The Department of Statistics at Texas A&M University Invites Nominations for The Emanuel and Carol Parzen Prize for Statistical Innovation

To promote the dissemination of statistical innovation, the Emanuel and Carol Parzen Prize for Statistical Innovation is awarded in even-numbered years to a North American statistician whose outstanding research contributions include innovations that have had impact on practice and whose PhD degree is at least 25 years old.

The Parzen Prize is awarded by the Department of Statistics at Texas A&M University and is selected by the members of the Parzen Prize Committee (consisting of four internal faculty members and one external member). The prize consists of an honorarium of \$1000 and travel to College Station, TX, to present a lecture at the Prize Ceremony.

Submission of nominations

Nominations for the 2018 Parzen Prize should include a letter describing the nominee's outstanding contributions to high impact innovative research in statistics, a current curriculum vita, and two supporting letters. Nominations should be submitted by **October 25, 2018** to Thomas Wehrly, the Chair of the 2018 Parzen Prize Committee, via e-mail to twehrly@stat.tamu.edu or to: *Professor Thomas Wehrly, Department of Statistics, Texas A&M University, TAMU 3143, College Station Texas 77843-3143.*

Previous Parzen Prize winners are: 1994 Grace Wahba, 1996 Donald P. Rubin, 1998 Bradley Efron, 2000 C.R. Rao, 2002 David R. Brillinger, 2004 Jerome H. Friedman, 2006 Alan Gelfand, 2008 Nancy Reid, Marvin Zelen, 2010 Roger Koenker, 2012 Adrian Raftery, 2014 Trevor Hastie, 2016 William Cleveland.

For more information, please visit our website at <https://www.stat.tamu.edu/about/awards-and-prizes/parzenprize/>

Call for Nominations: Ethel Newbold Prize

The Newbold Prize Committee invites nominations for the Ethel Newbold Prize.

The Ethel Newbold Prize for excellence in statistics is awarded every two years, next time in spring 2019. The name of the prize recognizes a historically important role of women in statistics. The prize itself is for excellence in statistics without reference to the gender of the recipient. The Ethel Newbold Prize is generously supported by Wiley.

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

In any year in which the award is due, the prize will not be awarded unless the set of all nominations includes candidates from both genders.

The award consists of the prize amount of 2500€ together with an award certificate.

For this call, the prize winner will be selected in spring 2019. The prize will be awarded at a following Bernoulli World Congress, Bernoulli-sponsored major conference, or ISI World Statistics Congress. The awardee will also be invited to present a talk at one of these conferences.

Further information about the Ethel Newbold Prize (and other prizes of the Bernoulli Society) may be found at <http://www.bernoulli-society.org/index.php/prizes>.

Submission of nominations

Each nomination should include a letter outlining the case in support of the nominee, along with a curriculum vitae. Nominations as well as any inquiries about the award should be sent to Oddbjorg Wethelund, Department of Mathematics, Aarhus University, email: oddbjorg@math.au.dk. The deadline for accepting nominations is **November 30, 2018**.

Ethel May Newbold (1882–1933) was an English statistician and the first woman to be awarded the Guy Medal in Silver by the Royal Statistical Society, in 1928. Her obituary, written by Major Greenwood, is at <http://www.jstor.org/stable/2341811>

The Newbold Prize Committee members are Eva B. Vedel Jensen (chair), Gesine Reinert and Jon A. Wellner.

2018 WNAR/IMS Meeting

The Western North American Region of The International Biometric Society (WNAR) jointly holds an annual meeting with IMS. Megan Othus reports from the most recent meeting, in June:

The 2018 Annual Meeting of the WNAR/IMS was hosted in Edmonton by the University of Alberta from June 25–27, with over 100 participants.

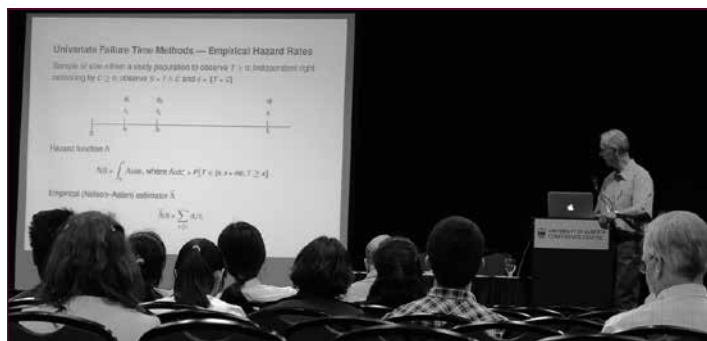
The meeting began with two short courses: “Statistical Challenges for Neuroimaging Data Analysis” presented

Marginal Modeling Approach to the Analysis of Multivariable Failure Time Regression Data.”

The conference included seven invited sessions sponsored by WNAR, one invited session sponsored by IMS, six student paper competition oral sessions, and three contributed paper sessions.



An unexpected fire alarm caused participants to evacuate the building



Ross Prentice giving the Presidential Invited Address.

by Linglong Kong from the University of Alberta and “Individual-level Transmission Process Modelling: Epidemics, Invasive Species and Beyond” presented by Rob Deardon from the University of Calgary. Ross Prentice from the Fred Hutchinson Cancer Research Center presented the WNAR Presidential Invited Address, “A

Student Paper Competition

Congratulations to the winners of this year’s student paper competition. The Most Outstanding Written Paper winners (tied) were Anu Mishra from the University of Washington for her paper “Weighted Recalibration for Improved Clinical Utility of Risk Scores” and Katherine Wilson from the University of Washington for her paper “Child Mortality Estimation Incorporating Birth History Data.” The Most Outstanding Oral Presentation winner was Phuong Vu from University of Washington

WNAR thanks Adam Kashlak for his efforts as the Program Chair, and Jei Jiang and Linglong Kong (all three from University of Alberta) for their efforts as Local Organizers.

for presentation “Probabilistic Predictive Principal Components Analysis for Spatially Misaligned and High-Dimensional Air Pollution Data with Missing Observations.” The Distinguished Oral Presentation winner was Kelsey Grinde from the University of Washington for her presentation “Controlling for Multiple Testing in Genome-Wide Admixture Mapping Studies.” The students received their award at the conference banquet.

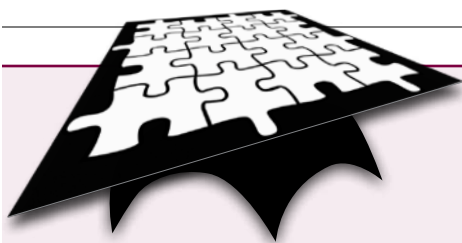
We give a special thanks to the chair of the student paper competition, Jessica Minnier from Oregon Health Sciences University. We also thank the team of student paper reviewers and judges for the students’ oral presentations and papers: Harold Bae from Oregon State University, Charlotte Gard from New Mexico State University, Katerina Kechris from University of Colorado Anschutz Medical Campus, Miguel Marino from Oregon Health Science University, and Byung Park from Oregon Health Sciences University.



Conference participants enjoying the WNAR mixer



Student paper competition winners



Student Puzzle Corner 22

Here's Anirban DasGupta's latest puzzle: coin tossing.

After our well deserved summer intermission, we need to get resolute again, and this time on a statistics problem. The inferential premise of our problem is completely standard, but the nature of the data is not quite standard. You will deal simultaneously with probability and inference.

It has been noted in the probability literature that students of probability grossly underestimate how many consecutive heads one is likely to obtain in a given number of tosses of a (fair) coin. Very few would be adventurous enough to write more than three or four consecutive heads in, say, 100 imaginary tosses of a coin. Actually, the expected value here is almost 6. The distribution of the length of the longest head run is, in principle, known.

Here is our exact problem this time.

Suppose a coin with an unknown probability p for heads, in a single trial, is tossed 10 times, and the length of the longest head run is found to be 1.

- (a) Find the MLE of p based on just this data.
- (b) Find a moment estimate of p based on just this data.



The Student Puzzle Corner contains problems in statistics or probability. Solving them may require a literature search. Student IMS members are invited to submit solutions (to bulletin@imstat.org with subject "Student Puzzle Corner"). The deadline is **November 15, 2018**.

The names of student members who submit correct solutions, and the answer, will be published in the following issue. The Puzzle Editor's decision is final.

Deadline: November 15, 2018

Contributing Editor Anirban DasGupta, on the solution to the previous Puzzle:



Joyce Cahoon

Student member **Joyce Cahoon** at North Carolina State University sent serious answers to last month's puzzle, and we commend her efforts.

If we denote $S_n = \sum_{i=1}^n x_i$, then by straightforward calculations, the probability that the n residents have no common friends is

$$\frac{(N - x_1)! (N - x_2)! \cdots (N - x_n)!}{(N!)^{n-1} (N - S_n)!}$$

For part (b), denote by B_i the event that resident i of the town is a friend of each of the n residents in consideration. In part (a), we already have the probability that none of the events B_1, B_2, \dots, B_N occurs. Apply de Moivre's formula to find the probability that exactly one of the events B_1, B_2, \dots, B_N occurs. For $N = 10^6$, $n = 15$, $x_i \equiv 4 \times 10^5$, the numerical value is approximately 0.37. Add it to the value from part (a) to get a probability of .71 that at most one resident of the town is a friend of the n residents in question.

For part (c), denote by $W = W_{N,n}$ the cardinality of the intersection of the n acquaintance sets. Then,

$$E(W) = \frac{x_1 x_2 \cdots x_n}{N^{n-1}} \text{ (just use indicators).}$$

When $n = N$ and each $x_i = N - \log N$, this is seen without trouble to be $1 + o(1)$ as $N \rightarrow \infty$. Thus, an approximate value of the probability that W equals 1 is $e^{-1} = .37$.

Recent papers: two IMS journals

Annals of Statistics: Volume 46, No. 5, October 2018

The *Annals of Statistics* aims to publish research papers of the highest quality reflecting the many facets of contemporary statistics.

Primary emphasis is placed on importance and originality. The Co-Editors are Edward I. George and Tailen Hsing.

Access papers at <https://projecteuclid.org/info/euclid.aos>

Variable selection with Hamming loss	CRISTINA BUTUCEA, MOHAMED NDAOUD, NATALIA A. STEPANOVA, AND ALEXANDRE B. TSYBAKOV; 1837–1875
Randomization-based causal inference from split-plot designs	ANQI ZHAO, PENG DING, RAHUL MUKERJEE, AND TIRTHANKAR DASGUPTA; 1876–1903
A new perspective on robust M -estimation:	
Finite sample theory and applications to dependence-adjusted multiple testing	WEN-XIN ZHOU, KOUSHIKI BOSE, JIANQING FAN, AND HAN LIU; 1904–1931
Robust covariance and scatter matrix estimation under Huber's contamination model	MENGJIE CHEN, CHAO GAO, AND ZHAO REN; 1932–1960
Empirical best prediction under a nested error model with log transformation	ISABEL MOLINA AND NIRIAN MARTÍN; 1961–1993
Backward nested descriptors asymptotics with inference on stem cell differentiation	STEPHAN F. HUCKEMANN AND BENJAMIN ELTZNER; 1994–2019
Change-point detection in multinomial data with a large number of categories	GUANGHUI WANG, CHANGLIANG ZOU, AND GUOSHENG YIN; 2020–2044
Local asymptotic normality property for fractional Gaussian noise under high-frequency observations	ALEXANDRE BROUSTE AND MASAOKI FUKASAWA; 2045–2061
Global testing against sparse alternatives under Ising models	RAJARSHI MUKHERJEE, SUMIT MUKHERJEE, AND MING YUAN; 2062–2093
Principal component analysis for second-order stationary vector time series	JINYUAN CHANG, BIN GUO, AND QIWEI YAO; 2094–2124
Estimation of a monotone density in s -sample biased sampling models	KWUN CHUEN GARY CHAN, HOK KAN LING, TONY SIT, AND SHEUNG CHI PHILLIP YAM; 2125–2152
Community detection in degree-corrected block models	CHAO GAO, ZONGMING MA, ANDERSON Y. ZHANG, AND HARRISON H. ZHOU; 2153–2185
CLT for largest eigenvalues and unit root testing for high-dimensional nonstationary time series	BO ZHANG, GUANGMING PAN, AND JITI GAO; 2186–2215
Smooth backfitting for errors-in-variables additive models	KYUNGHEE HAN AND BYEONG U. PARK; 2216–2250
Unifying Markov properties for graphical models	STEFFEN LAURITZEN AND KAYVAN SADEGHI; 2251–2278
Adaptation in log-concave density estimation	ARLENE K. H. KIM, ADITYANAND GUNTUBOYINA, AND RICHARD J. SAMWORTH; 2279–2306
Weak convergence of a pseudo maximum likelihood estimator for the extremal index	BETINA BERGHAUS AND AXEL BÜCHER; 2307–2335
Semiparametric efficiency bounds for high-dimensional models	JANA JANKOVÁ AND SARA VAN DE GEER; 2336–2359
Limit theorems for eigenvectors of the normalized Laplacian for random graphs	MINH TANG AND CAREY E. PRIEBE; 2360–2415
Optimality and sub-optimality of PCA I: Spiked random matrix models	AMELIA PERRY, ALEXANDER S. WEIN, AFONSO S. BANDEIRA, AND ANKUR MOITRA; 2416–2451
On the exponentially weighted aggregate with the Laplace prior	ARNAK S. DALALYAN, EDWIN GRAPPIN, AND QUENTIN PARIS; 2452–2478
Goodness-of-fit testing of error distribution in linear measurement error models	HIRA L. KOUL, WEIXING SONG, AND XIAOQING ZHU; 2479–2510



Richard Gibbens (1962–2018)

British mathematician and computer scientist Richard Gibbens has died, following a short illness. He was 56. Richard's research interests included the mathematical modelling of networks especially communication, road transport and energy networks. He was a Reader at the Computer Laboratory, University of Cambridge, and had just been promoted to a Professorship for this academic year. He was also a Fellow of the Alan Turing Institute. Prior to 2001, Richard was a Royal Society University Research Fellow in the Statistical Laboratory, University of Cambridge, where he also obtained his PhD.

He is survived by his wife Helen and two teenage children.

Annals of Applied Statistics: Volume 12, No. 3, September 2018

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

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

- Refining cellular pathway models using an ensemble of heterogeneous data sources ALEXANDER M. FRANKS, FLORIAN MARKOWETZ, AND EDOARDO M. AIROLDI; 1361–1384
- Statistical shape analysis of simplified neuronal trees ADAM DUNCAN, ERIC KLASSEN, AND ANUJ SRIVASTAVA; 1385–1421
- TPRM: Tensor partition regression models with applications in imaging biomarker detection MICHELLE F. MIRANDA, HONGTU ZHU, AND JOSEPH G. IBRAHIM; 1422–1450
- Complex-valued time series modeling for improved activation detection in fMRI studies DANIEL W. ADRIAN, RANJAN MAITRA, AND DANIEL B. ROWE; 1451–1478
- Optimal multilevel matching using network flows: An application to a summer reading intervention SAMUEL D. PIMENTEL, LINDSAY C. PAGE, MATTHEW LENARD, AND LUKE KEELE; 1479–1505
- Topological data analysis of single-trial electroencephalographic signals. YUAN WANG, HERNANDO OMBAO, AND MOO K. CHUNG; 1506–1534
- Joint significance tests for mediation effects of socioeconomic adversity on adiposity via epigenetics. YEN-TSUNG HUANG; 1535–1557
- Adaptive-weight burden test for associations between quantitative traits
and genotype data with complex correlations. XIAOWEI WU, TING GUAN, DAJIANG J. LIU, LUIS G. LEÓN NOVELO, AND DIPANKAR BANDYOPADHYAY; 1558–1582
- Bayesian aggregation of average data:
An application in drug development SEBASTIAN WEBER, ANDREW GELMAN, DANIEL LEE, MICHAEL BETANCOURT, AKI VEHTARI, AND AMY RACINE-POON; 1583–1604
- BayCount: A Bayesian decomposition method for inferring tumor heterogeneity using RNA-Seq counts. FANGZHENG XIE, MINGYUAN ZHOU, AND YANXUN XU; 1605–1627
- Exploring the conformational space for protein folding with sequential Monte Carlo. SAMUEL W. K. WONG, JUN S. LIU, AND S. C. KOU; 1628–1654
- Sequential double cross-validation for assessment of added predictive ability in high-dimensional
omic applications MAR RODRÍGUEZ-GIRONDO, PERTTU SALO, TOMASZ BURZYKOWSKI, MARKUS PEROLA,
JEANINE HOUWING-DUISTERMAAT, AND BART MERTENS; 1655–1678
- Joining the incompatible: Exploiting purposive lists for the
sample-based estimation of species richness ALESSANDRO CHIARUCCI, ROSA MARIA DI BIASE, LORENZO FATTORINI, MARZIA MARCHESELLI,
AND CATERINA PISANI; 1679–1699
- A general framework for association analysis of heterogeneous data GEN LI AND IRINA GAYNANOVA; 1700–1726
- Confident inference for SNP effects on treatment efficacy YING DING, YING GRACE LI, YUSHI LIU, STEPHEN J. RUBERG, AND JASON C. HSU; 1727–1748
- Nonparametric Bayesian learning of heterogeneous dynamic transcription factor networks XIANGYU LUO AND YINGYING WEI; 1749–1772
- Estimating and comparing cancer progression risks under varying surveillance protocols. JANE M. LANGE, ROMAN GULATI, AMY S. LEONARDSON, DANIEL W. LIN, LISA F. NEWCOMB,
BRUCE J. TROCK, H. BALLENTINE CARTER, PETER R. CARROLL, MATTHEW R. COOPERBERG,
JANET E. COWAN, LAWRENCE H. KLOTZ, AND RUTH ETZIONI; 1773–1795
- Analysing plant closure effects using time-varying mixture-of-experts Markov chain clustering. SYLVIA FRÜHWIRTH-SCHNATTER, STEFAN PITTNER,
ANDREA WEBER, AND RUDOLF WINTER-EBMER; 1796–1830
- Using missing types to improve partial identification with application to a study of HIV prevalence in Malawi ZHICHAO JIANG AND PENG DING; 1831–1852
- A coupled ETAS- I^2 GMM point process with applications to seismic fault detection. YICHENG CHENG, MURAT DUNDAR, AND GEORGE MOHLER; 1853–1870
- Functional principal variance component testing for a genetic association study of HIV progression DENIS AGNIEL, WEN XIE, MYRON ESSEX, AND TIANXI CAI; 1871–1893
- Estimating a common covariance matrix for network meta-analysis of gene expression datasets
in diffuse large B-cell lymphoma. ANDERS ELLERN BILGRAU, RASMUS FROBERG BRØNDUM, POUL SVANTE ERIKSEN, KAREN DYBKÆR, AND MARTIN BØGSTED; 1894–1913
- Tree-based reinforcement learning for estimating optimal dynamic treatment regimes. YEBIN TAO, LU WANG, AND DANIEL ALMIRALL; 1914–1938
- A frequency-calibrated Bayesian search for new particles SHIRIN GOLCHI AND RICHARD LOCKHART; 1939–1968
- Bayesian randomized response technique with multiple sensitive attributes: The case of information systems resource misuse. RAY S. W. CHUNG, AMANDA M. Y. CHU,
AND MIKE K. P. SO; 1969–1992
- Direct likelihood-based inference for discretely observed stochastic compartmental models of infectious disease LAM SI TUNG HO, FORREST W. CRAWFORD, AND MARC A. SUCHARD; 1993–2021

Treasurer's Report 2017

Introduction

This report details membership and subscription data for calendar year end 2017. The 2017 fiscal year end audit report is published separately online now that the auditors have completed the annual process.

In 2017, the total number of IMS paid members increased, but the total number of members decreased. This is because student members pay no dues and their numbers were down last year. Subscriptions by institutions also decreased this past year. The financial status of the Institute continues to be stable, and actions are in place to ensure its long-term stability. Details of the events of the past year, membership and subscription data, and sales data are given below.

Publications

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

IMS Core Print/Electronic Publications

Annals of Applied Probability; Annals of Probability; Annals of Applied Statistics; Annals of Statistics; Statistical Science; Current Index to Statistics; IMS Collections; IMS Monographs; IMS Textbooks; IMS Bulletin

Co-sponsored Print/Electronic Publications

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

Supported Publications

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

Affiliated Publications

Observational Studies; Probability and Mathematical Statistics; Stochastic Systems

Membership Data

Total individual paid membership in the Institute as of December 31, 2017 increased 1.4% from December 31, 2016. Table 1 presents the membership data back to 2011. The IMS had a peak in paid membership of 3156 in 2008 and has been decreasing since then. This trend is similar to that of other professional societies. Nevertheless, this is clearly an area of concern, and the Executive Committee continues to look for ways to address this issue.

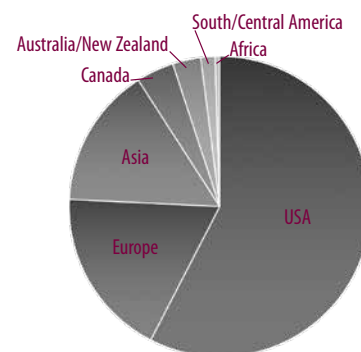
TABLE 1: Membership, by Calendar Year

	2011	2012*	2013	2014	2015	2016	2017	% change
Regular	1,863	1,792	1,737	1,616	1,587	1,565	1,447	-7.5%
Life/Retired Life	495	498	501	516	528	541	563	4.1%
Reduced Country/Retired/IMS China	401	395	369	364	376	337	370	9.8%
New Graduate	113	112	110	87	58	113	213	88.5%
Student	1,116	1,023	1,036	1,187	1,236	1,094	1,022	-6.6%
Total	3,988	3,820	3,753	3,770	3,785	3,650	3,615	-1.0%
Total excluding free members (students)	2,872	2,797	2,717	2,583	2,549	2,556	2,593	1.4%

* 2012 member figures contain some estimates

Geographic Distribution of Members.

The IMS membership is currently distributed as follows (see pie chart, right): 57% United States; 18% Europe; 15% Asia; 4% Canada; 3% Australia and New Zealand; <2% South America, Mexico and the Caribbean; <1% Africa.



Subscription Data

Selection of Journals by Members:

Print subscriptions by members continued to decrease in 2017, as expected, because members are opting to reduce their use of print while enjoying free electronic access to all journals. Members are charged actual cost for print copies of journals, so there is no net loss or gain to the bottom line from changes in print subscriptions by members. Table 2 (below) shows the current selection of print journals by members.

TABLE 2: Member subscriptions, by calendar year

PRINT (paid)	2011	2012	2013	2014	2015	2016	2017	% change
AAP	197	126	84	100	80	68	61	-10.3%
AOP	218	184	99	108	97	75	68	-9.3%
AOAS	480	379	232	171	141	107	91	-15.0%
AOS	555	447	265	284	262	220	208	-5.5%
STS	1,035	869	532	534	464	386	382	-1.0%
Total	2,485	2,005	1,212	1,197	1,044	856	810	-5.4%
Members setting up electronic access to IMS journals	1,435	1,572	1,294	1,234	1,226	1,183	1,144	-3.3%

Continued from page 14

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

Institutional Subscription Data

Table 3 (right) presents comparative subscription data for institutions to each of our scientific journals for 2017 and previous years. Almost all journals experienced subscription decreases in 2017. Overall institutional subscriptions decreased by 3.6% (CIS ceased selling subscriptions in 2016, so it is not included in the totals when figuring sales decrease). The decrease for IMS journals was 4.0%. We are continuing to see increases in our bundled offerings, which are discounted on the whole.

Approximately 60% of the non-member subscribers to IMS journals are in USA and Canada, with the remaining subscribers distributed throughout the world.

Book Sales Data

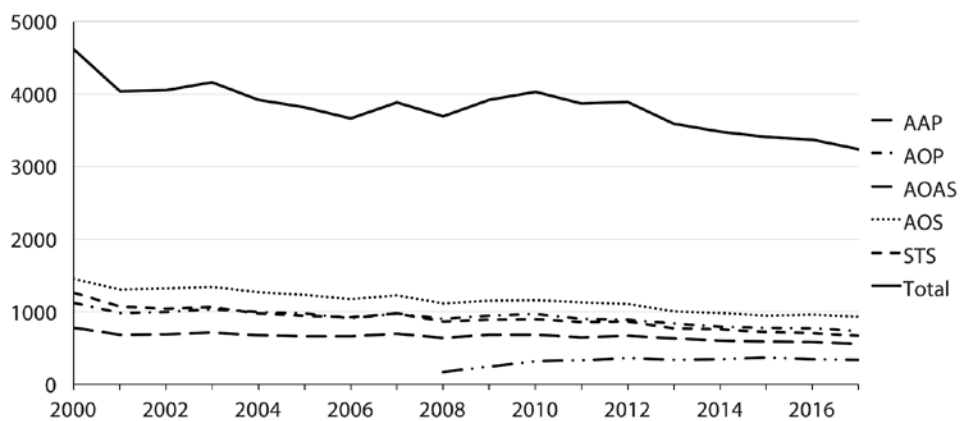
Table 4 (below) presents sales data for IMS book series. In 2010, the IMS published its first volumes in a cooperative arrangement with Cambridge University Press to publish two series, *IMS Monographs* and *IMS Textbooks*. Sales of these volumes are going very well. The *NSF-CBMS Regional Conference Series* published no new volumes in 2017. The *IMS Collections* series and the *IMS Lecture Notes-Monograph Series* have ceased publication.

TABLE 3: Institutional paid subscriptions, by calendar year

PRINT	2011	2012	2013	2014	2015	2016	2017	% change
AAP	645	687	632	600	591	580	558	-3.8%
AOP	901	908	839	795	779	769	735	-4.4%
AOAS	331	380	342	346	368	349	341	-2.3%
AOS	1,127	1,132	1,008	985	948	962	929	-3.4%
STS	861	865	769	753	717	708	671	-5.2%
Bulletin	142	128	169	102	96	90	75	-16.7%
CIS	273	249	229	216	199	182	N/A	N/A
AIHP ^s	289	326	324	297	305	304	300	-1.3%
Bernoulli ^s	280	321	307	292	299	298	303	1.7%
BJPS ^s	88	117	119	124	135	135	134	-0.7%
Total	4,966	5,001	4,738	4,510	4,437	4,377	4,046	-3.6%
Total IMS journals	3,865	3,888	3,590	3,479	3,403	3,368	3,234	-4.0%

^s denotes IMS-supported journals.

CHART 1: Institutional subscriptions, IMS journals, by calendar year



Financial and Audit Report

The fiscal year ended December 31, 2017. The external audit of the IMS is now complete; the full auditor’s report is online at <https://www.imstat.org/council-reports-and-minutes/>.

Conclusion

The IMS Executive Committee has reviewed all data in this report. A long-term financial plan is already in place and

the IMS continues to be strong and stable financially.

The decrease in institutional subscriptions is being felt across the market and is not unexpected. The IMS leadership began planning for these decreases over 13 years ago and has ensured that IMS resources are shored up to protect the long-term stability and growth of the society.

Zhengjun Zhang
IMS Treasurer

TABLE 4: Total sales of IMS Monographs and IMS Textbooks

Book	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
IMS Monographs (four volumes published to end of 2017)	660	586	789	604	1046	543	4,115	4,214	12,557
IMS Textbooks (seven volumes published to end of 2017)	639	491	326	636	1093	1254	777	630	5,846
Total Monographs & Textbooks sales	1,299	1,077	1,115	1,240	2,139	1,797	4,892	4,844	18,403

IMS meetings around the world

Joint Statistical Meetings: 2019–2023

IMS sponsored meeting

IMS Annual Meeting @ JSM 2019

July 27–August 1, 2019. Denver, CO, USA.

[w](http://ww2.amstat.org/meetings/jsm/2019/) <http://ww2.amstat.org/meetings/jsm/2019/>

We hope you'll join us in Denver for the 2019 IMS Annual Meeting, in conjunction with the Joint Statistical Meetings. With more than 6,500 attendees (including over 1,000 students) from 52 countries, and over 600 sessions, it's a busy few days! The theme this year is "Statistics: Making an Impact."



IMS sponsored meetings: JSM dates for 2020–2024

JSM 2020	IMS Annual Meeting	2022 Joint Statistical	IMS Annual Meeting	JSM 2024 NEW
August 1–6, 2020	@ JSM 2021	Meetings	@ JSM 2023	August 3–8, 2024
Philadelphia, PA	August 7–12, 2021,	August 6–11, 2022	August 5–10, 2023	Portland, Oregon
	Seattle, WA	Washington DC	Toronto, ON, Canada	

IMS co-sponsored meeting

The Tenth International Conference on Matrix-Analytic Methods in Stochastic Models

February 13–15, 2019

The University of Tasmania, Hobart, Australia

[w](http://www.maths.utas.edu.au/People/oreilly/mam/mam10.html) <http://www.maths.utas.edu.au/People/oreilly/mam/mam10.html>
IMS Representative on Program Committees: Mark Squillante
Matrix-Analytic Methods in Stochastic Models (MAM) conferences aim to bring together researchers working on the theoretical, algorithmic and methodological aspects of matrix-analytic methods in stochastic models and the applications of such mathematical research across a broad spectrum of fields, which includes computer science and engineering, telephony and communication networks, electrical and industrial engineering, operations research, management science, financial and risk analysis, bio-statistics, and evolution.

Keynote speakers: Søren Asmussen, Jevgenijs Ivanovs, Giang Nguyen, Zbigniew Palmowski and Phil Pollett.

IMS Sponsored meeting

Bernoulli/IMS 10th World Congress in Probability and Statistics

August 17–21, 2020. Seoul, South Korea

[w](#) TBC
Program chair is Siva Athreya and the Local chair is Hee-Seok Oh.

IMS co-sponsored meeting

20th INFORMS Applied Probability Society Conference

July 3–5, 2019

Brisbane, Australia

[w](http://informatics-aps.smp.uq.edu.au/) <http://informatics-aps.smp.uq.edu.au/>

The plenary speakers for the conference are: Charles Bordenave, Université de Toulouse, France (IMS Medallion Lecturer); Ton Dieker, Columbia University; Nelly Litvak, University of Twente and Eindhoven University of Technology, Netherlands; and Sidney Resnick, Cornell University (Marcel Neuts Lecturer).

A number of related events are being held before and after this conference: *Queues, Modelling, and Markov Chains: A Workshop Honouring Prof. Peter Taylor*, June 28–30 at Mount Tamborine, Queensland. *Applied² Probability*, July 2 at The University of Queensland, Brisbane. *12th International Conference on Monte Carlo Methods and Applications (MCM2019)*, July 8–13 in Sydney, Australia.

At a glance:

forthcoming
IMS Annual
Meeting and
JSM dates

2019

IMS Annual Meeting
@ JSM: Denver,
July 27–August 1,
2019

2020

JSM: Philadelphia,
August 1–6, 2020

**IMS Annual Meeting/
10th World Congress:**
Seoul, South
Korea, August
17–21, 2020

2021

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

2022

IMS Annual Meeting:
TBC
JSM: Washington,
August 6–11,
2022

2023

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

IMS co-sponsored meeting

**Computer Age Statistics in the Era of Big and High-Dimensional Data
January 3–5, 2019. Pune, India****w** <https://www.iccas19pune.org/>

CALL FOR PAPERS: Researchers are invited to submit abstracts (200 words) on recent developments in Statistics by November 15, 2018. Methodological and applied submissions are equally welcome. Topics include but are not limited to: computer age statistics, big and high dimensional data, statistical learning and data mining, biostatistics/bioinformatics, Bayesian inference, industrial statistics, spatial statistics and applications, financial statistics, astrostatistics.

IMS co-sponsored meeting

**XV CLAPEM: Latin American Congress of Probability and
Mathematical Statistics
December 2–6, 2019
Mérida, Mexico**Ramses H. Mena: ramses@sigma.iimas.unam.mx**w** <http://clapem2019.eventos.cimat.mx/>

The Congreso Latinoamericano de Probabilidad y Estadística Matemática (CLAPEM) is the official meeting of the Latin American Chapter of the Bernoulli Society. It is the major event in Probability and Statistics in the region and it gathers an important number of researchers and students, predominantly from Latin America. It serves as a forum to discuss and to disseminate recent advances in the field, as well as to reveal the future of our profession. Register for updates at the website above.

IMS co-sponsored meeting

**2019 Seminar on Stochastic Processes
March 13–16, 2019****University of Utah, Salt Lake City, USA****w** <http://www.math.utah.edu/SSP-2019/>

The Seminar on Stochastic Processes 2019 (SSP2019) will feature the **Kai-Lai Chung lecture from Jean Bertoin** (Universität Zürich), and invited speakers: Dan Crisan (Imperial College London); Kay Kirkpatrick (University of Illinois at Urbana-Champaign); Sunder Sethuraman (University of Arizona); and Amandine Véber (École Polytechnique).

On Wednesday, March 13th, there will be two 90-minute tutorials by **Marek Biskup** (University of California, Los Angeles). More information on the content of the tutorials will be posted in early 2019.

There are no registration fees, but all participants, including invited speakers, are asked to register (the registration form is on the meeting website now).

IMS co-sponsored meeting

**41st Conference on Stochastic Processes and their Applications (SPA)
July 8–12, 2019. Evanston, IL, USA****w** <http://sites.math.northwestern.edu/SPA2019/>

The 41st Stochastic Processes and their Applications conference will take place July 8–12, 2019, in Evanston, USA. It will feature the following invited lectures. **Plenary Speakers:** Cécile Ané, Béatrice de Tilière, James R. Lee, Dmitry Panchenko, Yanxia Ren, Allan Sly, Caroline Uhler. **IMS Medallion Lectures:** Krzysztof Burdzy and Etienne Pardoux. **Lévy Lecture:** Massimiliano Gubinelli. **Doob Lecture:** Jeremy Quastel. **Schramm Lecture:** Stanislav Smirnov.

IMS co-sponsored meeting

**ICIAM 2019: the 9th International Congress on Industrial and Applied
Mathematics
July 15–19, 2019
Valencia, Spain****w** <https://iciam2019.org/index.php>

The 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019) will be held in Valencia, Spain, from July 15–19, 2019. IMS is a member of ICIAM

The call for **organizing mini-symposia** at the ICIAM 2019 congress is now open. Please visit the webpage <https://iciam2019.org/index.php/information-for-delegates/submissions-calls/2-uncategorised/130-minisymposia> for details and online submissions.



IMS sponsored meetings

ENAR dates, 2019–2020**March 24–27, 2019: in Philadelphia, PA****March 22–25, 2020: in Nashville, TN****w** <http://www.enar.org/meetings/future.cfm>

The 2019 ENAR/IMS meeting will be in Philadelphia (and the following year in Nashville.) Contribute to the scientific meeting program: abstract submission deadline for all contributed and invited papers/posters is **October 15, 2018**.

Featuring a *Fostering Diversity in Biostatistics* workshop on March 24, on career and training opportunities within biostatistics, connecting underrepresented minority students interested in biostatistics with professional biostatisticians in academia, government and industry.

IMS co-sponsored meeting

**The 7th
International
Workshop in
Sequential
Methodologies
June 18–21, 2019
Binghamton, USA**<https://sites.google.com/view/iwsm2019>

Hosted by the Department of Mathematical Sciences at Binghamton University, State University of New York (SUNY), USA.

Other meetings and events around the world

Stochastic Spatial Models

June 9–15, 2019

Chapel Hill, NC, USA

[w](https://www.mathprograms.org/db/programs/689) <https://www.mathprograms.org/db/programs/689>

In the summer of 2019, the American Math Society will host three of its Mathematical Research Community events. The second of these, to be held June 9–15, 2019, is titled *Stochastic Spatial Models* and is organized by Shankar Bhamidi at UNC, Chapel Hill; Gerandy Brito and Michael Damron at Georgia Tech; and Rick Durrett and Matthew Junge from Duke. In contrast to typical week-long conferences, these meetings are an intensive hands-on research experience in which participants work in groups on open problems. The goal is to build long-term collaborations between participants. These collaborations will be nurtured by MRC special sessions at the Joint Mathematics Meetings in Denver, Colorado, in January 2020, and other follow-up activities.

Applicants should be **early career**, i.e., within 5 years of their PhD, or **expecting their PhD in less than two years**. Applications are now being accepted at

<https://www.mathprograms.org/db/programs/689> and will be accepted until **February 15, 2019**. For each of the approximately 40 NSF-supported participants, the MRC program provides support for travel to the summer conference site and all accommodations and meals there, support for travel to the 2020 Joint Mathematics Meetings in Denver, Colorado, and support for follow-up collaboration travel during the year following the summer conferences.

The AMS web site says “We welcome applicants from academic institutions of all types, as well as from private industry and government laboratories and agencies. Women and under-represented minorities are especially encouraged to apply.” For more details see <http://www.ams.org/programs/research-communities/mrc-19>

NEW

12th Chaotic Modeling & Simulation International Conference (CHAOS2019)

June 18–21, 2019. Chania, Greece

[w](http://www.cmsim.org/) <http://www.cmsim.org/>

Abstract, special session and workshop submission deadline: 20 December 2018

The forthcoming Nonlinear Systems Conference, titled 12th Chaotic Modeling and Simulation International Conference (CHAOS2019), will be hosted in the Cultural Centre of Chania on the island of Crete, Greece, from 18–21 June, 2019.

Chaos theory has developed rapidly in the last decades. With CHAOS2019 we celebrate 12 years of active presence in the field via the annual conference, the proceedings and publications in books and the CMSIM Journal (www.cmsim.eu).

The study of nonlinear and dynamical systems has emerged as a major area of interdisciplinary research and found very interesting applications. This conference is intended to provide a widely selected forum among Scientists and Engineers to exchange ideas, methods, and techniques in the field of Nonlinear Dynamics, Chaos, Fractals and their applications in General Science and in Engineering Sciences.

The principal aim of Chaos2019 International Conference is to expand the development of the theories of the applied nonlinear field, the methods, empirical data and computer techniques as well as the best theoretical achievements of chaotic theory. Chaos2019 Conference provides a forum for bringing together the various groups working in the area of Nonlinear and Dynamical Systems, Chaotic theory and Application to exchange views and report research findings.

For more information, abstract submission and special session proposals please visit the conference website above, or send an email to Secretariat@cmsim1.org.

NEW

18th Winter School on Mathematical Finance

January 21–23, 2019

Lunteren, The Netherlands

[w](https://staff.fnwi.uva.nl/p.j.c.spreij/winterschool/winterschool.html) <https://staff.fnwi.uva.nl/p.j.c.spreij/winterschool/winterschool.html>

Special Topics: Rough volatility; Long term investments. Minicourses by Paolo Guasoni (Dublin City University) and Jim Gatheral (The City University of New York). Special invited lectures by René Aïd (Université Paris-Dauphine), Jean-Philippe Bouchaud (École Polytechnique, Paris) and Stéphane Crépey (Université d'Évry).

UPDATED

The old city of Chania, Crete



International Workshop on Statistical Modelling 2019 (IWSM2019)

NEW

July 8–12, 2019

Guimarães, Portugal

w <http://www.iwsm2019.org/>

Luis Meira-Machado: lmachado@math.uminho.pt

The 34th International Workshop on Statistical Modelling (IWSM) will be held in Guimarães (Portugal) 8–12 July 2019. The IWSM2019 aims to involve both academic and professional statisticians and data analysts with a particular focus on real data problems which involve an element of novel statistical modelling, or novel model application. Papers focusing on applications with important substantive implications as well as methodological issues are welcome. Submissions by students and young researchers are particularly encouraged.

The atmosphere of the workshop is friendly and supportive, with no parallel sessions, with the aim of stimulating the exchange of ideas and experiences related to statistical modelling. As a sign of positive feedback the IWSMs report many returning participants.

Keynote speakers: Adrian Bowman, Julio Singer, Maria Antónia Turkman, Peter Diggle, Philippe Lambert.

Short Course: A short course will be held by James Carpenter (London School of Hygiene & Tropical Medicine) on Sunday, 7 July 2019. The course will deal with Missing Data.

2nd International Conference on Applied & Industrial Mathematics and Statistics 2019 (ICoAIMS 2019)

NEW

July 23–25, 2019

Kuantan, Malaysia

w <http://icoaims.ump.edu.my/index.php/en/>

Noryanti Muhammad: noryanti@ump.edu.my

The ICoAIMS 2019: 2nd International Conference on Applied & Industrial Mathematics and Statistics 2019 with the theme *IR 4.0 Through the Eyes of Mathematics* aims to bring together leading academic, scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects related to Mathematics and Statistics. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Mathematics.

Deadline for abstract submission: 8 February 2019. See <http://icoaims.ump.edu.my/index.php/en/faq/registration-flow>

VI Congreso Bayesiano de América Latina / Bayesian Congress of Latin America (VI COBAL)

NEW

June 19–21, 2019

Lima, Peru

w <https://sites.google.com/site/cobal2019/>

Bruno Sansó: bruno@soe.ucsc.edu

The Bayesian Congress of Latin America (COBAL) is an international event promoted by the International Society for Bayesian Analysis (ISBA), whose importance in our region lies in opening a space that allows the dissemination, discussion and interaction between researchers, academics and students, with the aim of further strengthening scientific exchange among Latin American Bayesians.

The VI COBAL be held on the campus of the Pontificia Universidad Católica del Perú, located in Lima, Peru.

Previous editions have been made in: Ubatuba, Brazil (2002), Los Cabos, Mexico (2005), Pucón, Chile (2011), Medellín, Colombia (2015) and Guanajuato, Mexico (2017).

Like the previous congresses, the VI COBAL will count on the presence of renowned researchers from Latin America, which undoubtedly will strengthen, through their knowledge, the scientific development of our region.

As agreed in the V COBAL in Guanajuato, the VI COBAL language for all conferences, posters and courses are Portuguese or Spanish and it is required that the presentations and posters are written in English.

ISEC2020, the International Statistical Ecology Conference

NEW

June 22–26, 2020

Sydney, Australia

w <http://www.isec2020.org/>

David Warton: isec2020@unsw.edu.au

The International Statistical Ecology Conference is a biennial meeting of researchers at the interface between ecology and statistics. At ISEC2020 we are planning an exciting list of keynote speakers that bridge these two disciplines, as well as providing attendees with training opportunities, a forum for interdisciplinary collaboration, and a healthy dose of fun.

More details are forthcoming: check the website.

Employment Opportunities around the world

Australia: Melbourne, Victoria

Australian Mathematical Sciences Institute: Director
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43344775

Australia: Melbourne, Victoria

University of Melbourne: Lecturer / Senior Lecturer in Statistics (Data Sciences)
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43672196

Austria: Klosterneuburg

IST Austria: Assistant professor (tenure-track) / professor positions, mathematics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43329932

Canada: Burnaby, BC

Simon Fraser University: Tier I Canada Research Chair in Statistics and Actuarial Science and CANSSI Scientific Director
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43207683

Canada: Toronto, ON

University of Toronto, Department of Statistical Sciences: Assistant Professor, Cognitive & Statistical Sciences
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43244044

Canada: Toronto, ON

SickKids Research Institute: Scientist/Senior Scientist
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43666525

China: Shenzhen, Guangdong

The Chinese University of Hong Kong, Shenzhen: Tenured/tenure-track faculty positions
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43646674

Italy: Milan

Bocconi University, Department of Decision Sciences: Assistant professor Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43222775

Japan: Okinawa

The Okinawa Institute of Science and Technology and Graduate School: Open Faculty Positions in Mathematics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43550825

Sweden: Stockholm

Royal Institute of Technology, Department of Mathematics: Associate Professor in Mathematics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43561991

U.A.E.: Dubai

Mohammed Bin Rashid University of Medicine and Health Sciences: Academic Ranks in Biostatistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43835357

United Kingdom: Cambridge

University of Cambridge, Department of Pure Mathematics & Mathematical Statistics: Churchill Professorship of Mathematics for Operational Research
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43560103

Taiwan: Taipei

Institute of Statistical Science, Academia Sinica: Tenure-Track Research Positions

Applications are invited for tenure-track appointments as Full/Associate/Assistant Research Fellows in the Institute of Statistical Science, Academia Sinica (ISSAS), to commence on August 1, 2019 or as soon as possible thereafter. Applicants should possess a Ph.D. degree in Statistics, 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, and (6) representative publications and/or technical reports. 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. Frederick Kin Hing Phoa, Chair of the Search Committee, Institute of Statistical Science, Academia Sinica
 128 Sec. 2 Academia Road, Taipei 11529, Taiwan, R.O.C.*

Fax: +886-2-27831523

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

Application materials should be received by **December 15, 2018** for consideration, but early submissions are encouraged.

Singapore

Faculty Positions at the Department of Statistics & Applied Probability, National University of Singapore

The National University of Singapore intends to hire faculty members whose research focus is in data science. 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 December 2018.

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 & Applied Probability. Applications should be sent by post or via e-mail to:

*Search Committee, Department of Statistics & Applied Probability
National University of Singapore
6 Science Drive 2, Singapore 117546
E-mail: stasec@nus.edu.sg*

NUS offers internationally competitive remuneration, generous research support and funding, relocation assistance and other benefits. The Department of Statistics & Applied Probability 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 & Applied Probability:
<http://www.stat.nus.edu.sg/>

United Kingdom: London

London School of Economics and Political Science: Assistant Professor in Data Science

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43800059

United States: San Diego, CA

University of California, San Diego: Tenure-track and Tenured Faculty Positions - Pure and Applied Mathematics and Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43474297

United States: Los Angeles, CA

UCLA Department of Statistics: UCLA Statistics Faculty Searches
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43562321

United States: Pleasanton, CA

Safeway Inc.: Mngr. Merchand. Analytics (Ops. Rsch.)
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43698653

United States: Los Angeles, CA

University of California, Los Angeles: Faculty Positions 2019/20 - Department of Mathematics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43839363

United States: Berkeley, CA

UC Berkeley: Capstone Lecturer

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43839624

United States: Stanford, CA

Stanford University: Associate or Full Professor in Statistics or Probability

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43561975

United States: Stanford, CA

Stanford University: Assistant Professor in Statistics or Probability

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43561952

United States: Champaign, IL

University of Illinois at Urbana-Champaign, Department of Statistics: Open Rank Faculty Position in Statistics and Data Science

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43375593

United States: Chicago, IL

University of Illinois at Chicago: Professor in Statistics - Tenured

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43562632

United States: Chicago, IL

The University of Chicago Booth School of Business: Assistant/Associate Professor of Econometrics and Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43375502

United States: Notre Dame, IN

University of Notre Dame: Associate or Full Professor

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43404671

United States: Notre Dame, IN

University of Notre Dame: Robert and Sara Lumpkins Assistant Professor

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43404664

United States: Manhattan, KS

Kansas State University, Department of Statistics: Tenure-Track Assistant Professor in Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43631090

More Employment Opportunities

United States: San Diego, CA

IDA Center for Communications Research, La Jolla: Research Staff Member
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43646264

United States: Cambridge, MA

Harvard University Department of Statistics: Full Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43865465

United States: Boston, MA

Boston University: Tenure Track Assistant Professor in Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43698173

United States: Cambridge, MA

Harvard University - Statistics: Tenure-Track Faculty in Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43536156

United States: Williamstown, MA

Williams College: Visiting Assistant Professor of Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43344339

United States: Ann Arbor, MI

Arbor Research Collaborative for Health: Senior Research Scientist, Biostatistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43355765

United States: Ann Arbor, MI

The University of Michigan: Tenure-track Assistant Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=36314243

United States: Chapel Hill, NC

The University of North Carolina at Chapel Hill: Assistant Professor of Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43244023

United States: Durham, NC

Statistical Science, Duke University: Tenure Track Assistant Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43404437

United States: Durham, NC

The Probability Community, Duke University: Tenure-Track Position
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43818352

United States: Research Triangle Park, NC



The **Statistical and Applied Mathematical Sciences Institute (SAMS)** is soliciting applications from statistical, mathematical and computational scientists for up to 6 postdoctoral positions for the SAMS research programs in 2019-2020. The three programs are: (1) **Games, Decisions, Risk and Reliability**, (2) **Deep Learning**, and (3) **Causal Inference**. Appointments will begin in **August, 2019** and typically run for two years, although they can also be arranged for a single year. Appointments are made jointly between SAMS and one of its partner universities (*Duke University, North Carolina State University, and the University of North Carolina Chapel Hill*). Teaching opportunities may be available. The positions offer extremely competitive salaries, a travel stipend, and health insurance benefits.

Criteria for selection of SAMS Postdoctoral Fellows include demonstrated research ability in statistics, applied mathematics, and/or computational science, excellent computing skills, and the ability to communicate both orally and in writing. Also, the preferred applicant will have a strong interest in one or more of the research programs scheduled for 2019-2020. The deadline for full consideration is **December 15, 2018**, although later applications will be considered as resources permit.

Please specify which SAMS programs you are applying for in your cover letter and why you believe you would be a good fit for those programs.

To apply, go to mathjobs.org:

SAMSIPD2019 Job #12160

To see more about these programs, visit:

www.samsi.info/games-19-20

www.samsi.info/sem-deep-Ing

www.samsi.info/sem-cas-inf

****SAMS is an Equal Opportunity employer****

United States: Ithaca, NY

Cornell University: Tenured/Tenured-Track Faculty Position(s)
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43865447

United States: Princeton, NJ

Princeton University: Assistant Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43865837

United States: Bethlehem, PA

Lehigh University: Tenure-track positions
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43645724

United States: New York, NY**Tenured/Tenured-Track Faculty Position(s)**

Cornell University's School of Operations Research and Information Engineering (ORIE) seeks to fill multiple tenured/tenured-track faculty positions for its Ithaca campus. We will primarily consider applicants with research interests in the areas of discrete optimization and financial engineering, especially those individuals who do computation, who work with data, or whose work intersects with machine learning. Nevertheless, we welcome strong applicants from all research areas represented within ORIE, especially those in resonance with the College of Engineering Strategic Areas: <https://www.engineering.cornell.edu/research-and-faculty/strategic-areas-research>.

Requisite is a strong interest in the broad mission of the School, exceptional potential for leadership in research and education, an ability and willingness to teach at all levels of the program, and a Ph.D. in operations research, mathematics, statistics, or a related field by the start of the appointment. Salary will be appropriate to qualifications and engineering school norms.

Cornell ORIE is a diverse group of high-quality researchers and educators interested in probability, optimization, statistics, machine learning, simulation, and a wide array of applications such as e-commerce, supply chains, scheduling, manufacturing, transportation systems, health care, financial engineering, service systems and network science. We value mathematical and technical depth and innovation, and experience with applications and practice. Ideal candidates will have correspondingly broad training and interests.

Please apply online at <https://academicjobsonline.org/ajo/jobs/11870> with a cover letter, CV, statements of teaching and research interests, sample publications, at least three reference letters and, for junior applicants, a doctoral transcript. All applications completed by November 16, 2018 will receive full consideration, but we urge candidates to submit all required material as soon as possible. We will accept applications until we fill the positions.

ORIE and the College of Engineering at Cornell embrace diversity and seek candidates who can contribute to a welcoming climate for students of all races and genders. Cornell University seeks to meet the needs of dual career couples, has a Dual Career program, and is a member of the Upstate New York Higher Education Recruitment Consortium to assist with dual career searches. Visit www.unyherc.org/home to see positions available in higher education in the upstate New York area. Diversity and Inclusion are a part of Cornell's heritage.

Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement. With our main campus located in Ithaca, NY Cornell's far-flung global presence includes the medical college's campuses in Manhattan and Doha, Qatar, as well as the new Cornell Tech campus located on Roosevelt Island in the heart of New York City.



We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities. We strongly encourage qualified women and minority candidates to apply.

United States: State College, PA

Pennsylvania State University: Tenure-Track Faculty Positions, Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43474301

United States: University Park, PA

Penn State University: Tenure-Track Faculty
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43654530

United States: College Station, TX

Texas A&M University, Department of Statistics: Faculty Positions Available
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43222976

United States: Denton, TX

University of North Texas: Tenure-Track Assistant Professor Department of Mathematics, Department of Biological Sciences
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43839036

United States: Salt Lake City, UT

University of Utah College of Science: Assistant/Associate/Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43375679

United States: Salt Lake City, UT

University of Utah, College of Science: Assistant/Associate/Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43818944


United States: Salt Lake City, UT


University of Utah, Department of Mathematics: Assistant/Associate/Professor in Statistics and Mathematics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=43509692


International Calendar of Statistical Events


IMS meetings are highlighted in maroon with the  logo, and new or updated entries have the  or  symbol. Please submit your meeting details and any corrections to Elyse Gustafson: erg@imstat.org

October 2018


October 1–4: Turin, Italy. **IEEE International Conference on Data Science and Advanced Analytics (DSAA)**  <https://dsaa2018.isi.it/home>

October 3–7: Bodrum, Turkey. **11th International Statistics Days Conference**  <http://igs2018.mu.edu.tr/>

October 18–20: Cincinnati, OH, USA. **2018 Women in Statistics and Data Science Conference**  <http://www2.amstat.org/meetings/wsds/2018/>


October 25–27: Barcelona, Spain. **Big Data Meets Survey Science**  <https://www.bigsurv18.org/>


November 2018


November 1–2: Boston, MA, USA. **Biobanks: Study Design and Data Analysis**  <https://www.hsph.harvard.edu/2018-pqg-conference/>


November 9–11: Cincinnati, USA. **Cincinnati Symposium: Probability Theory and Applications**  <http://homepages.uc.edu/~buckinrt/cinciprob2018/>


December 2018


December 10–11: London, UK. **3rd IMA Conference: Mathematical Challenges of Big Data**  <https://ima.org.uk/9104/3rd-ima-conference-on-the-mathematical-challenges-of-big-data/>


December 3–5: Knoxville, USA. **NIMBioS Tutorial: Applications of Spatial Data: Ecological Niche Modeling**  http://www.nimbios.org/tutorials/TT_SpatialData2

December 13–15: Hsinchu, Taiwan. **Joint Conference for Experimental Design and Production Engineering 2018**  <http://www3.stat.sinica.edu.tw/jcedpe2018/>




December 17–19: Houston, TX, USA. **4th International Conference on Big Data and Information Analytics**  <https://sph.uth.edu/divisions/biostatistics/bigdia/>


December 17–20: Chennai, India. **Statistical methods in Finance 2018**  <http://statfin.cmi.ac.in/2018/>


December 17–20: Jerusalem, Israel. **Jerusalem Joint Statistical Event 2018**  <https://www.emr2018.com/>


December 27–30: Kolkata, India. **Tenth International Triennial Calcutta Symposium on Probability and Statistics**  <http://www.calcuttastatisticalassociation.org/sympBrochure.php>

January 2019

  January 3–5: Pune, India. **Computer Age Statistics in the Era of Big and High-Dimensional Data**  <https://www.iccas19pune.org/>

January 18–19: Gainesville, FL, USA. **Statistics Winter Workshop 2019**  <https://informatics.institute.ufl.edu/event/statistics-annual-winter-workshop-2019-recent-advances-in-causal-inference-and-mediation-analysis-and-their-applications/>

January 21–23: Lunteren, The Netherlands. **18th Winter School on Mathematical Finance**  <https://staff.fnwi.uva.nl/p.j.c.spreij/winterschool/winterschool.html>

January 21–25: Bangkok, Thailand. **3rd Bangkok Workshop on Discrete Geometry, Dynamics and Statistics**  <http://www.thaihep.phys.sc.chula.ac.th/BKK2019DSCR/>

February 2019

February 11–15: Hawassa, Ethiopia. **Hawassa Stat & Math Conference 2019**  <http://www.hu.edu.et/mathstatconf/>


 February 13–15: Hobart, Tasmania, Australia. **Matrix-Analytic Methods for Stochastic Models (MAM10)**  <http://www.maths.utas.edu.au/People/oreilly/mam/mam10.html>

February 14–16: New Orleans, USA. **Conference on Statistical Practice**  <https://www2.amstat.org/meetings/csp/2019/>

March 2019

March 6–8: Zanjan, Iran. **5th Conference on Contemporary Issues in Data Science (CiDaS)**  <https://cidas.iasbs.ac.ir/>

 March 13–16: Salt Lake City, USA. **2019 Seminar on Stochastic Processes**  <http://www.math.utah.edu/SSP-2019/>

 March 24–27: Philadelphia, PA, USA. ENAR Spring Meeting **w** <http://www.enar.org/meetings/future.cfm>


April 2019

April 25–26: Birmingham, UK. 2nd IMA and OR Society Mathematics of Operational Research **w** <https://ima.org.uk/9649/2nd-ima-and-or-society-conference-on-mathematics-of-operational-research/>

May 2019


May 29–June 1: Bellevue, Washington DC, USA. Symposium on Data Science and Statistics **w** <http://ww2.amstat.org/meetings/sdss/2019/>


June 2019

 June 9–15: Chapel Hill, NC, USA. Stochastic Spatial Models **w** <https://www.mathprograms.org/db/programs/689>

June 12–14: Delft, The Netherlands. DYNSTOCH 2019 **w** <http://web.math.ku.dk/~michael/dynstoch/>

 June 18–21: Binghamton, USA. 7th International Workshop on Sequential Methodologies (IWSM) **w** <http://sites.google.com/view/iwsm2019>

 June 18–21: Chania, Greece. 12th Chaotic Modeling & Simulation International Conference (CHAOS2019) **w** <http://www.cmsim.org/>

 June 19–21: Lima, Peru. VI Congreso Bayesiano de América Latina / Bayesian Congress of Latin America (VI COBAL) **w** <https://sites.google.com/site/cobal2019/>

June 19–22: Manizales, Colombia. 3rd International Congress on Actuarial Science and Quantitative Finance **w** <http://icasqf.org/>

June 24–28: Oxford, UK. 12th International Conference on Bayesian Nonparametrics **w** <http://www.stats.ox.ac.uk/bnp12/>


July 2019

July 1–9: Zagreb, Croatia. 11th International Conference on Extreme Value Analysis **w** <http://web.math.hr/eva2019>

  July 3–5 [NOTE CORRECTED DATES, not July 13–15 as previously listed]: Brisbane, Australia. 20th INFORMS Applied Probability Conference **w** <http://informs-aps.smp.uq.edu.au/>

  July 6–10: Dalian, China. 2019 IMS-China Conference **w** [NEW WEBSITE] <http://www.ims-china.org>


 July 8–12: Evanston, IL, USA. 41st Conference on Stochastic Processes and their Applications (SPA) **w** <http://sites.math.northwestern.edu/SPA2019/>

 July 8–12: Guimarães, Portugal. International Workshop on Statistical Modelling 2019 (IWSM2019) **w** <http://www.iwsm2019.org/>

July 14–18: Leuven, Belgium. 40th Conference of the International Society for Clinical Biostatistics **w** <http://www.icsb.info>

 July 15–19: Valencia, Spain. ICIAM 2019 **w** <https://iciam2019.org/index.php>

July 22–26: Palermo, Italy. European Meeting of Statisticians 2019 **w** <http://www.ems2019.palermo.it>

 July 23–25: Kuantan, Malaysia. 2nd International Conference on Applied & Industrial Mathematics and Statistics 2019 (ICoAIMS 2019) **w** <http://icoaims.ump.edu.my/index.php/en/>

 July 27–August 1: Denver, CO, USA. IMS Annual Meeting at JSM 2019 **w** <http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx>

August 2019

August 17–19: St. Louis, USA. 4th Workshop on Higher-Order Asymptotics and Post-Selection Inference (WHOA-PSI) **w** <https://www.math.wustl.edu/~kuffner/WHOA-PSI-4.html>



August 18–23: Kuala Lumpur, Malaysia. ISI2019: 62nd International Statistical Institute World Statistics Congress 2019 **w** <http://www.isi2019.org/>

October 2019

October 10–12: Grand Rapids, USA. 3rd International Conference on Statistical Distributions and Applications (ICOSDA 2019) **w** <http://people.cst.cmich.edu/lee1c/icosda2019/>

International Calendar *continued*

December 2019

  December 2–6: Mérida, México. XV CLAPEM: Latin American Congress of Probability and Mathematical Statistics **w** <http://clapem2019.eventos.cimat.mx/>

March 2020

 March 22–25: Nashville, TN, USA. ENAR Spring Meeting **w** <http://www.enar.org/meetings/future.cfm>

June 2020


June 15–18: New Orleans, LA, USA. Sixth International Conference on Establishment Statistics (ICES-VI) **w** <http://ww2.amstat.org/meetings/ices/2020/>


 June 22–26: Sydney, Australia. International Statistical Ecology Conference (ISEC2020) **w** <http://www.isec2020.org/>

July 2020


July 5–11: Portoroz, Slovenia. 8th European Congress of Mathematics. **w** <http://www.8ecm.si/>

August 2020


 August 1–6: Philadelphia, PA, USA. JSM 2020 **w** <http://www.amstat.org/ASA/Meetings/Joint-Statistical-Meetings.aspx>

 August 17–21: Seoul, Korea. Bernoulli/IMS World Congress on Probability and Statistics **w** TBC

March 2021

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

August 2021

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

March 2022

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

August 2022


 July/August: Location TBC. IMS Annual Meeting **w** TBC

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

August 2023

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

August 2024

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

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

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

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

Membership and Subscription Information

Journals

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

Individual Memberships

Each individual member receives the *IMS Bulletin* (print and/or electronic) and may elect to receive one or more of the five scientific journals. Members pay annual dues of \$105. An additional \$89 is added to the dues of members for each scientific journal selected (\$53 for *Stat Sci*). **Reduced membership dues** are available to full-time students, new graduates, permanent residents of countries designated by the IMS Council, and retired members.

Individual and General Subscriptions

Subscriptions are available on a calendar-year basis. **Individual subscriptions** are for the personal use of the subscriber and must be in the name of, paid directly by, and mailed to an individual. Individual subscriptions for 2018 are available to *The Annals of Applied Probability* (\$204), *The Annals of Applied Statistics* (\$204), *The Annals of Probability* (\$204), *The Annals of Statistics* (\$204), *Statistical Science* (\$168), and *IMS Bulletin* (\$115). **General subscriptions** are for libraries, institutions, and any multiple-readership use. Institutional subscriptions for 2018 are available to *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Probability*, and *The Annals of Statistics* (each title \$505 online only / \$559 print+online), *Statistical Science* (\$288/\$317), and *IMS Bulletin* (\$132 print). Airmail rates for delivery outside North America are \$149 per title.

IMS Bulletin

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

The *IMS Bulletin* (ISSN 1544-1881) is published eight times per year in January/February, March, April/May, June/July, August, September, October/November and December, by the Institute of Mathematical Statistics, 3163 Somerset Dr, Cleveland, Ohio 44122, USA. Periodicals postage paid at Cleveland, Ohio, and at additional mailing offices. Postmaster: Send address changes to Institute of Mathematical Statistics, 9650 Rockville Pike, Suite L3503A, Bethesda, MD 20814-3998.

Copyright © 2018 by the Institute of Mathematical Statistics. Printed by The Sheridan Press, 450 Fame Avenue, Hanover, PA 17331, USA.

Information for Advertisers

General information: The *IMS Bulletin* and webpages are the official news organs of the Institute of Mathematical Statistics. The *IMS Bulletin*, established in 1972, is published 8 times per year. Print circulation is around 4,000 paper copies, and it is also free online in PDF format at <http://bulletin.imstat.org>, posted online about two weeks before mailout (average downloads over 8,000). Subscription to the *IMS Bulletin* costs \$115. To subscribe, call 877-557-4674 (US toll-free) or +1 216 295 2340 (international), or email staff@imstat.org. The IMS website, <http://imstat.org>, established in 1996, receives over 30,000 visits per month. Public access is free.

Advertising job vacancies

A single 60-day online job posting costs just \$305.00. We will also include the basic information about your job ad (position title, location, company name, job function and a link to the full ad) in the *IMS Bulletin* at no extra charge. See <http://jobs.imstat.org>

Advertising meetings, workshops and conferences

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

Rates and requirements for display advertising

Display advertising allows for placement of camera-ready ads for journals, books, software, etc. A camera-ready ad should be sent as a grayscale PDF/EPS with all fonts embedded. Email your advert to Audrey Weiss, IMS Advertising Coordinator admin@imstat.org or see <http://bulletin.imstat.org/advertise>

	Dimensions: width x height	Rate
1/3 page	4.9" wide x 4" high (125 x 102 mm)	\$270
1/2 page	7.5" wide x 4" high (190 x 102 mm)	\$335
2/3 page	4.9" wide x 8" high (125 x 203 mm)	\$390
Full page (to edge, including 1/8" bleed)	8.75" wide x 11.25" high (222 mm x 286 mm)	\$445
Full page (within usual <i>Bulletin</i> margins)	7.5" wide x 9.42" high (190 mm x 239 mm)	\$445

Deadlines and Mail Dates for *IMS Bulletin*

Issue	Deadline	Online by	Mailed
1: January/February	December 1	December 15	January 1
2: March	February 1	February 15	March 1
3: April/May	March 15	April 1	April 15
4: June/July	May 1	May 15	June 1
5: August	July 1	July 15	August 1
6: September	August 15	September 1	September 15
7: Oct/Nov	September 15	October 1	October 15
8: December	November 1	November 15	December 1

the
next
issue is
December
2018

Read IMS Bulletin
articles online at
<http://bulletin.imstat.org>



DEADLINES
for
submissions
November 1,
then **December 1**

Please see inside
the back cover for
subscription details
and information for
advertisers, including
all our **deadlines and**
requirements

Journal
alerts

For alerts and special
information on all the
IMS journals, sign up
at the IMS Groups site
<http://lists.imstat.org>

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



IMS: Organized September 12, 1935

Ann. Prob. Nov 2018
<http://projecteuclid.org/euclid.aop>

THE ANNALS
of
PROBABILITY

AN OFFICIAL JOURNAL OF THE
INSTITUTE OF MATHEMATICAL STATISTICS

Articles

Pfaffian Schur processes and last passage percolation in a half-quadrant
JINHO BAIK, GUILLAUME BARRAQUAND, IVAN CORWIN AND TOUFIC SUIDAN 3015

Pathwise uniqueness of the stochastic heat equation with spatially inhomogeneous white
noise EYAL NEUMAN 3090

A quantitative central limit theorem for the Euler–Poincaré characteristic of random
spherical eigenfunctions. . VALENTINA CAMMAROTA AND DOMENICO MARINUCCI 3188

Representations and isomorphism identities for infinitely divisible processes
JAN ROSIŃSKI 3229

Coupling in the Heisenberg group and its applications to gradient estimates
SAYAN BANERJEE, MARIA GORDINA AND PHANUEL MARIANO 3275

First-passage times for random walks with nonidentically distributed increments
DENIS DENISOV, ALEXANDER SAKHANENKO AND VITALI WACHTEL 3313

Canonical supermartingale couplings. MARCEL NUTZ AND FLORIAN STEBEGG 3351

A weak version of path-dependent functional Itô calculus
DORIVAL LEÃO, ALBERTO OHASHI AND ALEXANDRE B. SIMAS 3399

Lower bounds for the smallest singular value of structured random matrices
NICHOLAS COOK 3442

The scaling limits of the Minimal Spanning Tree and Invasion Percolation in the plane
CHRISTOPHE GARBAN, GÁBOR PETE AND ODED SCHRAMM 3501

Quenched central limit theorem for random walks in doubly stochastic random
environment. BÁLINT TÓTH 3558

The KLS isoperimetric conjecture for generalized Orlicz balls
ALEXANDER V. KOLESNIKOV AND EMANUEL MILMAN 3578