



March 2017

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Cox and Efron's BBVA Award

Sir **David Cox** and **Bradley Efron** have been awarded the prestigious BBVA Foundation Frontiers of Knowledge Award in the Basic Sciences category. The €400,000 award is shared for their development of “pioneering and hugely influential” statistical methods that have proved indispensable for obtaining reliable results in a vast spectrum of disciplines from medicine to astrophysics, genomics or particle physics.

“Cox and Efron's techniques are used on a daily basis in the practice of statistical science, and have made an enormous impact in all the sciences which rely on the analysis of data,” the jury's citation said.

Cox's contribution, “the Cox regression,” is a powerful tool to explain the duration of a time interval between two events of interest, which depends on identifiable factors rather than mere chance (for instance, the mortality of a group of individuals due to a particular disease or a risk factor like environmental pollution). It finds use in such varied fields as cancer research, epidemiology, economics, psychology or sociology, and even in the testing of the resistance and durability of industrial products. The jury illustrates the technique's application in the medical field by citing the conclusion that even a year of smoking cessation contributes to reduce mortality.

Bradley Efron, Stanford University, meantime, is the inventor of the bootstrap, a “deceptively simple” technique, as the jury terms it, to estimate the margin of error of a given outcome; a must-know in science, without which results are worthless.

Both contributions date from decades ago and both laureates found it hard to pick just one out of the multiple applications found since then. David Cox, University of Oxford, declared himself “enormously surprised and gratified” by the sheer range of scientific problems his method has helped address. Cox's technique, published in 1972, is now the second most cited statistics paper in modern scientific literature.

Cox's move into statistics was motivated by the military imperatives of the aeronautics industry in the Second World War. Efron, who met Cox in London in 1972, had been nudged towards statistics by his father's love of mathematics and sport. He says part of what led him to the bootstrap technique, published in 1979, was a conversation he had with Cox then about another statistical analysis method.

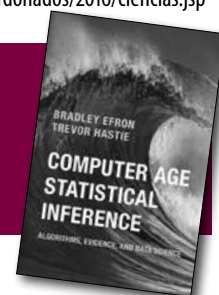
The two laureates concur that their own methods, and statistical tools in general, will become increasingly necessary in the practice of science, more reliant by day on the analysis of massive data sets.

Abridged from <http://www.fbbva.es/TLFU/tlfu/ing/microsites/premios/fronteras/galardonados/2016/ciencias.jsp>

Read it online at
bulletin.imstat.org



Computer Age Statistical Inference: Algorithms, Evidence, and Data Science, written by Bradley Efron and Trevor Hastie (both from Stanford University), has recently won the 2017 PROSE Award for Computing and Information Sciences. As an IMS member you are entitled to a 40% discount on your copy: order via <http://cambridge.org/ims>



Contact information

IMS Bulletin Editor: Vlada Limic

Assistant Editor: Tati Howell

UPDATE 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

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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
PO Box 22718, Beachwood
OH 44122, USA

t 877-557-4674 [toll-free in USA]

t +1 216 295 5661 [international]

f +1 216 295 5661

e erg@imstat.org

Executive Committee

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IMS Members' News

White House recognizes Emily Fox with Presidential Early Career Award

Emily Fox, Amazon Professor of Machine Learning, University of Washington, has been selected to receive a 2017 Presidential Early Career Award for Scientists and Engineers (PECASE). The award is the highest honor bestowed by the US government upon scientists and engineers in the early stages of their independent research careers.

Fox is among 102 scientists and engineers (only 19 via the National Science Foundation) who are being recognized by the White House for advancing the frontiers of science and technology and serving the community through scientific leadership, public education, and community outreach.

"I congratulate these outstanding scientists and engineers on their impactful work," said President Barack Obama in a press release in January announcing the winners. "These innovators are working to help keep the United States on the cutting edge, showing that Federal investments in science lead to advancements that expand our knowledge of the world around us and contribute to our economy."

PECASE winners are chosen from among nominees submitted by a dozen federal agencies and the intelligence community for making significant contributions to America's continuing leadership in science and technology. Fox was nominated for the award by the National Science Foundation for her "groundbreaking work in large-scale Bayesian modeling and computational approaches to time series and longitudinal data analysis, and for outstanding outreach and mentoring of women in computer science and statistics."

In addition to her Amazon Professorship (with appointments in Statistics and CSE), Fox is a Data Science Fellow in UW's eScience Institute and co-created the UW's Coursera specialization in machine learning in collaboration with UW CSE professor Carlos Guestrin. The PECASE is the latest in a long list of honors for Fox, who is the recipient of a Sloan Research Fellowship, ONR Young Investigator Award, NSF CAREER Award and the MIT EECS Jin-Au Kong Outstanding Doctoral Thesis Prize, among many others. Fox's research has been applied in a wide range of domains, including neuroscience, finance and econometrics, social networking, and more.

Introducing new Contributing Editors

New IMS Bulletin Editor Vlada Limic writes:

We are delighted to welcome to the *Bulletin's* team of Contributing Editors the following "new faces":

Yoram Gat (Google Israel)

Takis Konstantopoulos (Uppsala University, Sweden)

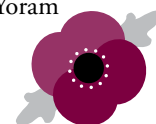
Regina Nuzzo (Gallaudet University, Washington DC, USA)

Kavita Ramanan (Brown University, RI, USA)

They will join the existing members of the team, Anirban DasGupta, David Hand, Xiao-Li Meng, Dimitris Politis and Terry Speed.

Look out for Anirban's **Student Puzzle Corner**—back after a hiatus—on page 7 and Xiao-Li's **XL-Files** on page 9. Next issue we'll bring you columns from Yoram Gat and Terry Speed, and maybe more...

Don't forget, if you have a **POPI** (a **P**roject, **O**bject or **P**erspective of **I**nterest), send us a note at bulletin@imstat.org.



More Members' News

David J Finney turns 100

Congratulations to IMS Fellow, Professor **David Finney**, who celebrated his 100th birthday on 16 December 2016. David Finney pioneered the development of systems monitoring drug safety; his work has greatly influenced the monitoring systems now in place. His two best known books are *Probit Analysis* (1947) and *Statistical Method in Biological Assay* (1952). He lives in Edinburgh.

IMS Elections 2017

The annual elections are taking place for the next IMS President and six places in the IMS Council. We introduce the candidates on pages 11–17.

Voting opens soon—look out for the email with your personalized link—and closes June 16.

Edsel Peña is new IMS Executive Secretary

We are pleased to announce the next Executive Secretary will be **Edsel Peña**. Edsel is a Professor in the Department of Statistics at the University of South Carolina, Columbia, SC. He will take over from Aurore Delaigle, who will have served two three-year terms, this August. The responsibilities of the Executive Secretary are listed in the IMS Handbook, at <http://www.imstat.org/handbook/officers.html#ExecSec>.



Alastair Scott receives Royal Society of New Zealand's Jones Medal

IMS Fellow **Alastair Scott** has been awarded the Jones Medal by the Royal Society of New Zealand (RSNZ) for his lifetime contribution to statistics.

The medal selection committee acknowledged that Professor Scott is a world leader in survey sampling theory and analysis of case control studies. His methods are used in many applications and he has also contributed substantially to research in public health. His work has particular relevance to obtaining reliable data from sampling, developing effective and simple methods that can take account of survey design features and deal with missing data.

His 1981 paper on categorical survey data was recognized as one of the 19 landmark papers in survey sampling by the International Association of Survey Statisticians in their 2001 Centenary volume. These methods, developed with Professor Rao, called Rao–Scott adjustments, are widely used and incorporated in several software packages for survey data analysis. In addition to developing a large body of novel and important statistical methodologies, he has been an advisor to official agencies nationally and internationally.

On receiving the Medal, Professor Scott said: “I feel very honoured to receive the Jones Medal named in honour of [New Zealand's] most celebrated mathematician, Sir Vaughan Jones,” recalling that he had taught Jones in 1972.

Scott is a Fellow of the RSNZ, ASA, IMS and the Royal Statistical Society. He is an Honorary Life Member of the New Zealand Statistical Association and received its premier award, the Campbell Prize in 2012. In 2006 he received the ASA/SSC Waksberg Award for outstanding contributions to survey methodology.

= 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: Maria Eulalia Vares
<http://imstat.org/aop>
<http://projecteuclid.org/aop>

Annals of Applied Probability: Bálint Tóth
<http://imstat.org/aap>
<http://projecteuclid.org/aop>

Statistical Science: Cun-Hui Zhang
<http://imstat.org/sts>
<http://projecteuclid.org/ss>

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<http://imstat.org/publications/imscollections.htm>
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IMS Monographs and IMS Textbooks: David Cox
<http://imstat.org/cup/>

IMS Co-sponsored Journals and Publications

Electronic Journal of Statistics: Domenico Marinucci
<http://imstat.org/ejs>
<http://projecteuclid.org/ejs>

Electronic Journal of Probability: Brian Rider
<http://ejp.ejpecp.org>

Electronic Communications in Probability: Sandrine Péché
<http://ecp.ejpecp.org>

Current Index to Statistics: George Styan
<http://www.statindex.org>
 log into members' area at imstat.org

Journal of Computational and Graphical Statistics: Diane Cook
<http://www.amstat.org/publications/jcgs>
 log into members' area at imstat.org

Statistics Surveys: Donald Richards
<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/aihp>
<http://projecteuclid.org/aihp>

Bayesian Analysis: Bruno Sansó
<http://ba.stat.cmu.edu>

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>

Stochastic Systems: Assaf Zeevi
<http://www.i-journals.org/ssy/>

IMS-Affiliated Journals

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

Statistical Methods of Gravitational-Wave Detection and Astrophysics

This article is written by Chris Pankow (Northwestern University), Will M. Farr (University of Birmingham, AL) and Ben Farr (University of Chicago). Richard A. Davis, IMS Past President, explains: *“Last February, former IMS Bulletin editor Anirban DasGupta wanted to publish an article about the role of statistics in the recent and stunning discovery of Einstein’s prediction on gravitational waves. I approached Andrew Gelman, who has a background in physics and is also the co-creator of the Bayesian program Stan that was used in some of the statistical calculations, to help. Andrew persuaded Chris Pankow, Will Farr, and Ben Farr to write this article. Thanks to Anirban for the great suggestion.”*

INTRODUCTION

A century ago, Einstein and others laid down the foundation of what is now known as general relativity — the theory of how mass and the curvature of spacetime interact. One prediction of this theory is the radiation of energy through gravitational waves (Einstein 1916) from accelerating massive systems like astronomical binaries. While normally an immeasurable effect for widely separated, non-compact systems like the Solar System, close binaries with black hole or neutron star components emit potentially detectable and distinct gravitational-wave signatures. Detection by laser interferometers, like the kilometer-scale instruments in Livingston, Louisiana and Hanford, Washington, has been pursued because they are capable of detecting the diminutive effect of passing waves—in the detections discussed here, the length of the 4 km interferometer arms varied by only $\sim 10^{-18}$ m. Most searches for gravitational waves from compact binaries use models which are based on general relativity and parameterized by the physical properties of the binary (e.g., compact object masses, angular momenta, orientation and position; usually more than 15 parameters). These models describe the effect of the wave impinging on a network of gravitational-wave detectors. To account for modeling uncertainty, or when a complete signal model is unavailable, more generic searches are employed, which assume no particular signal morphology. In the latter half of 2015, the two LIGO interferometers (Abbott et al. 2016e) recorded several transient events from the mergers of binary black holes (Abbott et al. 2016b), confirming their existence and measuring their properties (Abbott et al. 2016a) using a variety of sophisticated statistical techniques. Abbott et al. (2016g) describes the basic, order-of-magnitude physics behind the radiated signal and its interpretation in the first detection.

The second detection of GW151226 and weaker, but still compelling, LVT151012 have left no doubts in the minds of scientists that gravitational waves exist and match with our description of Nature to high precision. The detections also provided a unique opportunity to test general relativity in its position as the prevailing theory of gravity. The vast majority of alternative theories of gravity predict gravitational waves, but with modifications according

to their peculiarities. The searches and most of the parameter estimation use models which assume general relativity (GR) is the correct description of the interaction between gravity and matter. The generic transient analyses mentioned previously do not require GR to be entirely accurate, but still require most of its fundamental tenets. There are also a variety of explorations into systematic deviations from GR—a summary of LIGO–Virgo Collaboration work is in Figures 7&8 in Abbott et al. (2016b). One of many efforts to translate the observations into constraints on various GR extension theories can be found in Yunes et al. (2016).

The community response to the discovery has been nearly ubiquitously positive and constructive—they are incorporating and building on our result. There have been very few serious, peer-reviewed attempts at debunking the result. The statistical arguments remain unchallenged in the literature, but some have questioned various pieces of the experiment and its interpretation. For example, in Chang et al. (2016), it is argued that a part of our frequency response to gravitational waves was flawed. However, no counterclaim has yet been considered to be credible.

CONTEXT: ASTROSTATISTICS AND GRAVITATIONAL-WAVE DETECTION

The field of astrostatistics is quite rich, and the LIGO–Virgo Collaboration has taken advantage of a solid foundation forged by others before us. The literature has many earlier examples of statistical modeling and its use with large data sets, weak signal strength, possible measurement biases, and disentangling mixtures of populations: for example, exoplanet detection with Kepler data (e.g. see work by Foreman-Mackey, Hogg, Rogers, and many more). Another very concrete, though not yet realized, example is the LSST (Large Synoptic Survey Telescope) project¹, slated to begin in the 2020s. They will be dealing with an event rate in the tens of thousands *per night* and the false positive problem is a complicated one which is just beginning to be addressed.

The transient searches employed by LIGO can be separated

1 <https://www.lsst.org/>

into those which assume a particular source model (e.g. searches for binary mergers, see Abbott et al. (2016b) and references therein) and more generic searches which only enforce reconstructed signal consistency between instruments (see Abbott et al. (2016c) and references therein). Many of the statistics involving the matched filtering were derived in the early 2000s: both types of searches use time-series filtering algorithms (Anderson et al. 2001; Allen et al. 2012). These algorithms produce lists of times and amplitudes relative to the noise (encoded in the signal-to-noise ratio, or SNR) which characterize putative signals embedded in a noisy data stream. The stochastic nature of the noise means that the SNR has a statistical distribution with larger SNRs becoming increasingly improbable.

The main function of statistics like the SNR and χ^2 (Allen 2005) is to distinguish the event candidate from the non-astrophysical transient background distribution and establish its statistical significance. Searches must also deal with transients in the data which are induced by the instrument and its environs (Abbott et al. 2016a) — colloquially called “glitches”. This additional population imposes fatter tails on the idealized SNR distribution. In practice, there is no analytic description for the non-astrophysical environmentally-induced transient SNR distribution, and so this must be measured empirically.

PARAMETER ESTIMATION

Once an event time of interest is observed by the searches, a posterior distribution over the parameters describing the source of a signal is sampled using forward-modeling Bayesian methods that demand explicit modeling of signal and noise alike. The likelihood function is formed from the residuals left after signal subtraction from the data time series. While this is a (mostly) straightforward application of Bayes’ Law, there is no analytical marginalization available, so stochastic sampling techniques, particularly Markov Chain Monte Carlo and nested sampling (Abbott et al. 2016a; Veitch et al. 2015) are employed. This likelihood, coupled with the priors on source parameters (e.g., uniform in compact object masses and spins, isotropic in orientation, uniform in volume in the local universe), provide the posterior probability density for the source parameters.

Another analysis has been developed to account for possible glitch behavior at the time of a signal and to mitigate uncertainties in the signal model. The non-Gaussian components of the noise (assumed uncorrelated between instruments) can be modeled simultaneously with the signal (assumed correlated across

detectors). The reconstruction is obtained using a reverse-jump Markov Chain Monte Carlo (RJ-MCMC) ². This enables jumps between model spaces in addition to traditional MCMC jumps within a single model space, allowing for model comparison to be done “on the fly” (Cornish & Littenberg 2015; Abbott et al. 2016c). It is a powerful tool in unparameterized signal reconstruction and glitch rejection, but this method has relaxed assumptions about the astrophysical signal relative to the rigorous parameterized modeling imposed by the previously mentioned MCMC and nested sampling techniques, and is not typically used to generate posteriors over the physical properties of the binary.

RATES AND MASS DISTRIBUTIONS

One of the key science outputs from these observations is the density of merging binary black holes in spacetime (the merger rate), expressed as a number of mergers per cubic gigaparsec (Gpc^3) per year ³. To calculate this number, the Collaboration must calculate the number of detected mergers (the “numerator” in units of counts) and the spacetime volume that it has searched (the “denominator” in units of $\text{Gpc}^3 \text{yr}^{-1}$). There are statistical challenges to both calculations. To derive the rates and the probability of astrophysical origin (Abbott et al. 2016h), hierarchical modeling (a pedagogical reference can be found in Foreman-Mackey et al. (2014)) and mixture models have been adapted from their use in astrostatistics.

While two *confident* gravitational-wave detections were reported (GW150914 and GW151226) there was a third candidate (LVT151012) identified with measured cumulative accidental background event coincidence (or false alarm) rate of $(2.3 \text{ yr})^{-1}$ (Abbott et al. 2016d). This candidate has a significance, or *p*-value, of 0.045 (Abbott et al. 2016b). To account for our uncertainty about the origin of this trigger we fit a mixture model comparing the SNR distributions of both the terrestrial and astrophysical populations to the set of triggers from our searches, including the three candidates and many more (Abbott et al. 2016b,i,h; Farr et al. 2015). From this model, we infer a posterior probability that the LVT151012 trigger is associated with an astrophysical source of 0.86. We use the posterior on the astrophysical population in the mixture model to infer coalescence rates.

Fitting a hierarchical power-law model to our three candidates, accounting for our mass measurement uncertainties and selection effects (Loredo 2004; Mandel et al. 2016) yields a posterior median and 90% credible interval of $\alpha = 2.5^{+1.5}_{-1.6}$ (Abbott et al. 2016b); not surprisingly, given three possible detections, the source population

² For a good introduction, see <https://www.sigproc.eng.cam.ac.uk/foswiki/pub/Main/SJG/hssschapter.pdf>

³ One parsec is 3.1×10^{16} m, or about three light-years. There are about 12,000 Gpc^3 in the observable universe. See Hogg (1999) for a discussion of distances and times in cosmology.

is poorly constrained. A full accounting of rates under different population assumptions can be found in Abbott et al. (2016b), but the union of the rates estimate provides a conservative 90% credible interval of $9\text{--}240 \text{ Gpc}^{-3} \text{ yr}^{-1}$.

OUTLOOK

The posterior predictive distribution for the rate can be used to extrapolate the expected number of future detections over the next set of observational runs (labeled O2, O3, etc.). While dependent on progress with planned improvements in the instruments (Abbott et al. 2016e,c), using a reasonable range of estimates for the expected detector sensitivities in the upcoming six-month LIGO observing run from late 2016 (Abbott et al., 2016f), the probability of at least 10 more confident detections (like GW150914 and GW151226) in the next run is between 15–80% (see Fig. 13, Abbott et al., 2016b).

The measurement of the binary parameters, their statistical significance, and occurrence rate are definitive statements: our methods are well tested from previous data-taking runs, and the evidence presented is a clear affirmation of the significance of the detections. However, as O2 evolves and more events are collected, the rates will become better measured. As a consequence, several groups inside and outside the Collaboration are working on more sophisticated hierarchical models in attempts to incorporate more astrophysics and do better, more nuanced model selection. We seek the answers to questions like: “How do heavy black holes form?” and “What are their environments and interactions?”. Speaking more directly to physics, we’ve confirmed yet another (elusive!) piece of general relativity, and pushed the frontiers of precision science and large-scale experimental physics. The astronomy community has also been very excited: another potential discovery in

the next few years may be a neutron-star black-hole binary. Should this happen, there is a chance we can correlate the gravitational-wave signal with a flash of gamma rays (very high energy light). This would allow for a rich laboratory of science involving the high-density matter composing neutron stars, otherwise inaccessible in terrestrial laboratories. Beyond binary merger events, there is potential for detections of supernova, semi-monochromatic GW emission from deformed neutrons stars, and the gravitational-wave analog to the cosmic microwave background. The Collaboration’s plan for just the next year fill many pages (Collaboration 2016).

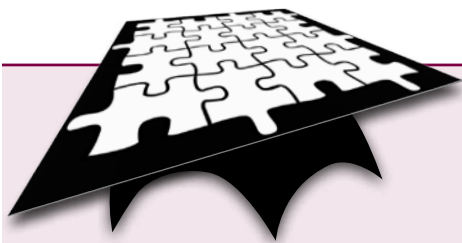
GW150914, in and of itself, did not directly affect humanity. Indeed, all gravitational-wave events pass by without notice by the population at large. However, the technological and sociological benefits of the Collaboration’s journey to discovery of gravitational waves are immeasurable. As a beginning, we have developed an instrument capable of extremely high precision measurements and we’ve developed leading edge data analysis algorithms and statistical modeling techniques. Furthermore, the Collaboration has provided data releases to demonstrate to society the fruits of endeavor that their investment has directly contributed to. About an hour of the time series data surrounding each event has been released by the LIGO Open Science Center (LOSC), free for exploration and accompanied by basic tutorials in their use⁴. A full data release for O1 will occur, but may take several more months to assemble. In the meantime, those interested can obtain the data from the fifth and sixth science runs (2005–2010) from the LOSC site above.

Maybe less concretely, but more poignantly: we’ve allowed the world to “listen” to black holes for the first, and assuredly not the last, time.

4 <https://losc.ligo.org/events/>

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Student Puzzle Corner 17

After a long gap, we now resume the problem corner, and it is the turn of a problem on probability this time. The problem is at an interesting intersection of probability, analysis, and number theory.

Imagine that you are tossing an honest die repeatedly, and your score after the n th roll, say S_n , is the sum of the first n rolls. This, of course, is an integer between n and $6n$. Will S_n ever be a prime number for some n ? For infinitely many n ? What can we say about how many rolls does it take for S_n to be a prime number for the first time? Does it take just a few rolls? Is the expected waiting time finite? Can we give an approximate value for the expected waiting time? And so on.

Here is the exact problem of this issue:

Let X_1, X_2, \dots be iid discrete uniform on the set $\{1, 2, \dots, 6\}$, and let for $n \geq 1$, $S_n = \sum_{i=1}^n X_i$. Let \mathcal{P} denote the set of prime numbers $\{2, 3, 5, 7, \dots\}$, and $\tau = \inf\{n \geq 1 : S_n \in \mathcal{P}\}$.

- (a) Is $P(\tau < \infty) > 0$?
- (b) If $P(\tau < \infty) > 0$, does it have to be 1?
- (c) Show that $E(\tau) > \frac{7}{3}$.
- (d) Is $E(\tau) < \infty$?
- (e) If $E(\tau) < \infty$, give an approximate numerical value for it.
- (f) Conjecture if the variance of τ is finite.
- (g) Is $P(S_n \in \mathcal{P} \text{ for infinitely many } n) = 1$?

Note: Answer as many parts as you can; do not be disappointed if you cannot answer all the parts.

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 **April 20, 2017**.

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

Puzzle deadline April 20

Solution to Puzzle 16:

Contributing Editor Anirban DasGupta writes:

The problem was to derive an asymptotically correct $100(1-\alpha)\%$ confidence interval for $F(\mu)$, given an iid sample X_1, \dots, X_n from a distribution with CDF F , finite mean μ and variance σ^2 , and a density $f(\mu)$ at μ , in the sense that F is differentiable at μ with a derivative $f(\mu)$. The mean and the variance are considered unknown, and no functional form of F or f is assumed.

The problem is not entirely simple; there is some literature on it. If we define the empirical process $G_n(t) = \sqrt{n} [F_n(t) - F(t)]$, where $F_n(t) = \frac{1}{n} \sum_{i=1}^n I_{X_i \leq t}$, then consider the decomposition $\sqrt{n} [F_n(\bar{X}) - F(\mu)] = [G_n(\bar{X}) - G_n(\mu)] + \sqrt{n} [F_n(\mu) - F(\mu)] + \sqrt{n} [F(\bar{X}) - F(\mu)]$. By using the multivariate central limit theorem, the delta theorem, and the order of the oscillation of the empirical process $G_n(t)$ in small intervals,

one can show that $\sqrt{n} [F_n(\bar{X}) - F(\mu)] \stackrel{L}{\approx} N(0, V(F))$, where $V(F) = F(\mu)(1 - F(\mu)) + \sigma^2 f^2(\mu) + 2f(\mu)E_F[(X - \mu) I_{X \leq \mu}]$. Construction of a confidence interval for $F(\mu)$ requires consistent estimation of $F(\mu)$, σ^2 , $E_F[(X - \mu) I_{X \leq \mu}]$, and $f(\mu)$. The first three are easily done. Consistent estimation of $f(\mu)$ can be done by using various standard density estimation methods, but because μ is considered unknown, the assumptions on f are stronger than what one needs for pointwise consistent estimation of $f(x)$ at any known x . Alternatively, one can bootstrap $\sqrt{n} [F_n(\bar{X}) - F(\mu)]$, and find bootstrap estimates of the variance or directly find quantiles of the bootstrap distribution.

Recent papers: two co-sponsored journals

Electronic Journal of Statistics

The *Electronic Journal of Statistics (EJS)* publishes research articles and short notes in theoretical, computational and applied statistics. The journal is open access. Articles are refereed and are held to the same standard as articles in other IMS journals. Articles become publicly available shortly after they are accepted. EJS is sponsored by the IMS and by the Bernoulli Society.

Read it at <https://projecteuclid.org/euclid.ejs>

Volume 11: Number 1, 2017

Estimation of a discrete probability under constraint of k -monotonicity	JADE GIGUELAY; 1 - 49
Estimation of low rank density matrices by Pauli measurements	DONG XIA; 50 - 77
Estimation of the global regularity of a multifractional Brownian motion	JOACHIM LÉBOVITS AND MARK PODOLSKIJ; 78 - 98
Bootstrap for the second-order analysis of Poisson-sampled almost periodic processes	DOMINIQUE DEHAY AND ANNA E. DUDEK; 99 - 147
Parametric conditional variance estimation in location-scale models with censored data	CÉDRIC HEUCHENNE AND GÉRALDINE LAURENT; 148 - 176
Convergence properties of Gibbs samplers for Bayesian probit regression with proper priors	SAPTARSHI CHAKRABORTY AND KSHITIJ KHARE; 177 - 210
Simple confidence intervals for MCMC without CLTs	JEFFREY S. ROSENTHAL; 211 - 214
Large-scale mode identification and data-driven sciences	SUBHADEEP MUKHOPADHYAY; 215 - 240
TIGER: A tuning-insensitive approach for optimally estimating Gaussian graphical models	HAN LIU AND LIE WANG; 241 - 294
Minimum disparity estimation in controlled branching processes	MIGUEL GONZÁLEZ, CARMEN MINUESA, AND INÉS DEL PUERTO; 295 - 325
Analysis of Polya-Gamma Gibbs sampler for Bayesian logistic analysis of variance	HEE MIN CHOI AND JORGE CARLOS ROMÁN; 326 - 337
Asymptotically optimal, sequential, multiple testing procedures with prior information on the number of signals	Y. SONG AND G. FELLOURIS; 338 - 363

Statistics Surveys

Statistics Surveys publishes survey articles in theoretical, computational, and applied statistics. The style of articles may range from reviews of recent research to graduate textbook exposition. Articles may be broad or narrow in scope. The essential requirements are a well specified topic and target audience, together with clear exposition. *Statistics Surveys* is sponsored by the American Statistical Association, the Bernoulli Society, the Statistical Society of Canada and IMS.

Read it at <https://projecteuclid.org/euclid.ejs>

Volume 10, 2016

A survey of bootstrap methods in finite population sampling	ZEINAB MASHREGHI, DAVID HAZIZA, AND CHRISTIAN LÉGER; 1 - 52
Fundamentals of cone regression.	MARIELLA DIMICCOLI; 53 - 99
A comparison of spatial predictors when datasets could be very large	JONATHAN R. BRADLEY, NOEL CRESSIE, AND TAO SHI; 100 - 131
Measuring multivariate association and beyond.	JULIE JOSSE AND SUSAN HOLMES; 132 - 167

XL-Files: 2016, In Memory and In Memoriam

Contributing Editor Xiao-Li Meng writes:

“How could that happen?” was perhaps the question of the year for 2016. Other than a small percentage of perceptive minds, which I hope include disproportionately more of my fellow statisticians, the rest of the human population seems to still be coping with the aftermath (*afterstat?*) of 2016. Forever, 2016 will remain in our memory as an *extraordinary* year, literally. It was a year that also saw the departures of more extraordinary figures than in any other year in my memory, although I am acutely aware of my age-induced ability to create alternative facts. The departure of the daughter–mother pair, Carrie Fisher and Debbie Reynolds, on two consecutive days just before the departure of 2016 itself, sadly dramatized “The Year of The Reaper,” as *Time* put it (on its cover).

And although we are still years away from statisticians sharing a *Time* cover with Hollywood celebrities, our profession did have its heavy share of the Year of The Reaper. We started the year with the shocking departure of one of the most prolific, and kindest, scholars of our time, **Peter Hall** (11/20/1951–1/9/2016). Only a month after, we lost one of the most engaging and forceful pioneers, **Emanuel Parzen** (4/21/1929–2/6/2016). Less than 12 weeks later, we had to bid farewell to the legendary advocate and nurturer of statistics and statisticians, **Ingram Olkin** (7/23/1924–4/28/2016). Six weeks on, we lost another eminent and penetrating scholar, **Vidyadhar Godambe** (6/1/1926–6/9/2016). In early fall, we learned of the demise of **Theodore Anderson** (6/5/1918–9/17/2016), a renowned pioneer bridging statistics and econometrics. Ten weeks later the statistics community was shaken again by the departure of his contemporary, **Charles Stein** (3/22/1920–11/24/2016), a towering statistical intellect for all times.

The end of the year came with the sad news of the passing of **Stephen Fienberg** (11/27/1942–12/14/2016), another prolific scholar, as well as an energizing leader, of our profession.

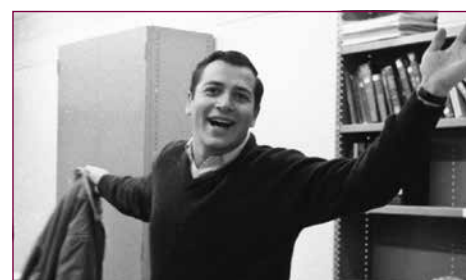
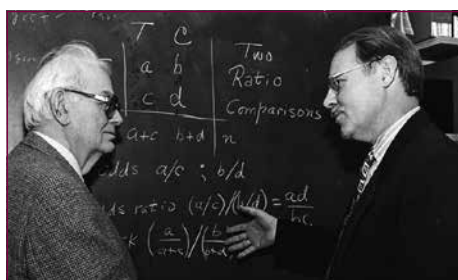
Sadly, this list is far from exhaustive, especially if we include scholars in closely related fields. Just locally, in April, I attended a very moving memorial event for **James Ware** (10/27/1941–4/26/2016), a leading figure, both scholarly and professionally, in biostatistics. And in July, Harvard mourned the loss of **Howard Raiffa** (1/24/1924–7/8/2016), a giant in game theory and decision analysis (and a founding uncle of Harvard’s Statistics Department).

Of course, we all will enter history sooner or later. The differences are that each of us may belong to a different cell of a 2x2x2 table: those who make history or not; those who care about doing so or

not; and those who will be remembered by history or not. Regardless of which cell represents an ideal life and which cell is *my* destiny, the inspirations generated by such leading scholars and scholarly leaders can enrich our “cell life” in multiple ways. Therefore, the year of 2016 should be remembered also as a particularly rich year of inspiration. And to help the younger (than me) generations to remember all of them, and other giants of our beloved profession, I will leave you to correctly identify all nine of them in the pictures below, as well as those others in the pictures, including one whose centennial recently passed. The first eight people who can correctly identify everyone in the pictures (and who are above 21) will be invited to a “libation and inspiration” gathering at JSM 2017 to celebrate the lives of these nine (and hopefully not many more). [Email your entry and age-proof to meng@stat.harvard.edu.]



How many of these 14 people can you name? There's a prize for the first 8 to tell Xiao-Li who they all are!



Credit: Jay Goodman

Apply or nominate for awards

Mortimer Spiegelman Award

The Applied Public Health Statistics Section of the American Public Health Association (APHA) invites nominations for the 2017 Mortimer Spiegelman Award, which honors a statistician below the age of 40 in the calendar year of the award who has made outstanding contributions to health statistics, especially public health statistics. The award was established in 1970 and is presented annually at the APHA meeting. The award serves the following three purposes:

1. To honor the outstanding achievements of both the recipient and Spiegelman
2. To encourage further involvement in public health by the finest young statisticians
3. To increase awareness of APHA and the Applied Public Health Statistics Section in the academic statistical community

The Spiegelman Award recipient must be a health statistician who has made outstanding contributions to statistical methodology and its applications in public health (broadly defined).

The award is open to early career investigators regardless of race, gender, sexual orientation, nationality or citizenship. Specifically, candidates must meet at least one of the following criteria:

- Candidate must be under age 40 throughout the award calendar year; or
- Candidate must have obtained a terminal degree in statistics or a statistics-related field in the last 10 years.

For those receiving a terminal degree after considerable professional experience, contributions during and subsequent to the degree will be considered by the committee, and nominators are strongly encouraged to contact the Committee Chair with any questions about whether the nominee qualifies as an early career investigator.

Please email a nominating letter that states the candidate's date of birth and how their contributions relate to public health concerns, up to three letters of support, and the candidate's CV to the award committee chair, Tyler VanderWeele, at tvanderw@hsph.harvard.edu. Nominations are due by **April 1, 2017**.

NISS 2017 Jerome Sacks Award

Nominations are being sought for the 2017 National Institute of Statistical Sciences' (NISS) Jerome Sacks Award for Outstanding Cross-Disciplinary Research. The prize recognizes sustained, high-quality, cross-disciplinary research involving the statistical sciences.

An award of \$1,000 will be presented during the NISS reception at the Joint Statistical Meetings (JSM) in Baltimore, July 29–August 3, 2017.

For more information, including a list of previous award winners, please see: www.niss.org/about/awards/jerome-sacks-award-outstanding-cross-disciplinary-research

To nominate an individual, submit as one PDF document the following information to sacksaward2017@niss.org by **May 1, 2017**: a nomination letter (maximum two pages); supporting letters from two individuals (other than nominator); and the nominee's CV.

Questions about the award or the nomination process can be sent to the email address given above.

IMS Child Care Initiative

The purpose of the IMS Child Care Initiative is to encourage and support the participation at IMS Annual Meetings of IMS members who have child care responsibilities. The next IMS Annual Meeting is at the Joint Statistical Meetings in Baltimore, July 29–August 3, 2017: <https://ww2.amstat.org/meetings/jsm/2017/>.

The IMS will reimburse members 80% of the costs of privately arranged child care* (for a dependent under the age of 13) at the IMS Annual Meeting, up to a maximum of US\$250 per family. Priority will be given to those presenting papers or posters at the meeting. Not more than 40 grants may be awarded. For details, see <http://imstat.org/meetings/childcare.htm>

A letter requesting funds must be submitted to IMS Executive Director, Elyse Gustafson, at the IMS office (see panel on page 2 for address) by **June 1**. The letter should include the following:

- The member's name and email address,
- Copy of registration, and copy of receipt for abstract submission (if applicable), and
- Projected amount of child care expenses for the time of the meeting.

After the meeting, please submit a complete receipt showing total amount of child care expenses, dates of care and names and birth dates of dependents, together with the claiming member's name and address.

* If, instead of hiring a child care provider, the member chooses to bring an unpaid family member or friend to the meeting to provide child care, the IMS can reimburse 80% of the cost of their travel, up to \$250.

IMS Elections 2017: Meet your candidates

President Elect Nominee: 1 candidate

Xiao-Li Meng

Whipple V. N. Jones Professor of Statistics
Dean of the Harvard University Graduate
School of Arts and Sciences

Harvard University



Martha Stewart

www <http://statistics.fas.harvard.edu/people/xiao-li-meng> and
<https://gsas.harvard.edu/person/xiao-li-meng>

Education

- 1990: PhD in Statistics, Harvard University
- 1987: MA in Statistics, Harvard University
- 1986: Diploma in Graduate Study of Mathematical Statistics, Research Institute of Mathematics, Fudan University, Shanghai, P.R. China
- 1982: BS in Mathematics, Fudan University, Shanghai, P.R. China

Research Interests

- **Statistical Theory and Principles** toward the foundation of Data Science;
- **Multi-resolution Inferences**, such as accumulating statistical evidence for individualized treatments (high resolution prediction) and dealing with partial prior knowledge (low resolution information);
- **Multi-phase Inferences**, such as handling uncongeniality between data pre-processors (e.g., imputers) and data analysts and preserving information in a distributed pre-processing system;
- **Multi-source Inferences**, such as comparing large observational datasets with small probabilistic samples and designing methods to gain combined information guided by bias-variance trade-off;
- **Philosophical and Foundational Issues in Statistics**, such as connecting and the interplay between Bayesian, Fiducial, and frequentist (BFF) perspectives, and their extensions, including belief function;
- **Statistical Computing and Computational Statistics**, such as Markov chain Monte Carlo, EM-type algorithms and their self-consistent generalizations, and user-friendly combining rules for multiple-imputation inference;
- **Signal Extractions and Uncertainty Assessments** in natural, social, and medical sciences, such as in astronomy/astrophysics

and in psychology/psychiatry;

- **Elegant Mathematical Statistics**, especially distribution theory and stochastic algebra

Previous IMS Responsibilities

- 2009–14 Editor, Statistics Series, IMS/CUP (Cambridge University Press) Monograph and Textbook Series
- 2006–09 and 2012–2015 IMS Council
- 2005–07 IMS Committee on Special Lectures
- 2003–05 IMS Committee on Nominations
- 1998–99 Chair, IMS Program Committee for the 1999 JSM
- 1996–97 IMS Program Committee for the 1997 ENAR Spring Meeting
- 1995 Co-organizer, IMS/ASA invited panel on “Speeding the Referee Process”

Brief Statement

By now, most would agree that Data Science, seen from the angle of a *science for data*, has two main pillars, Computer Science and Statistics, with Probability as their shared language. IMS, being the premier society in Statistics *and* Probability worldwide, therefore, should lead in building and shaping the foundation of Data Science. It can do so by organizing and promoting fundamental research on core issues of Data Science, e.g., optimal trade-offs between computational efficiency and statistical efficiency. It can do more in attracting, training, and promoting young talent—as young as high school students—who can enhance IMS as an attractor and hub of the deepest and most communicative scholars of Data Science. This is also the perfect time to renew the vows of the long (but not always affectionate) marriage between Statistics and Probability. If elected, I'll devote myself to this trio of goals to earn your trust.

Council Nominees

This year there are twelve candidates for six places on IMS Council. Read about them on the following pages.

Council Nominees: 12 candidates for 6 places on Council

Gérard Biau

Professor, Theoretical and Applied Statistics Laboratory, University Pierre and Marie Curie, Paris, France

w <http://www.lsta.upmc.fr/biau.html>



Education

PhD in Statistics, 2000, Montpellier University, France

Research Interests

Nonparametric statistics
Statistical learning
Massive and high-dimensional data
Analysis of algorithms

Previous Service to the Profession

2015–, President of the French Statistical Society
2013–, Director of the Theoretical and Applied Statistics Laboratory, University Pierre and Marie Curie, Paris, France
2013–, Co-editor-in-chief, *ESAIM: Probability and Statistics*

Brief Statement

It is an honor for me to stand as candidate for the IMS Council. Statistics and Probability are today at an unprecedented turning point in their common history, through the advent of what we now call data science. More important than ever, our disciplines must adapt in order to be able to meet the challenges of tomorrow's digital society. Given its history and global impact, the IMS seems to me to be the ideal vehicle for defending and affirming the importance of statistics and its deep mathematical roots, while accompanying its rapprochement with computing and more applied sciences. If elected, I intend to promote the development of statistics and probability, especially among younger people, while at the same time encouraging an opening up to new and interesting areas.

Jeng-Min Chiou

Research Fellow and Acting Director, Institute of Statistical Science, Academia Sinica

w <http://www.stat.sinica.edu.tw/jmchiou/>



Education

PhD in Statistics, 1997, University of California, Davis
MS in ISyE, 1993, Georgia Institute of Technology
MS in Industrial Engineering, 1989, National Tsing Hua University, Taiwan
BBA in Transportation, 1987, National Chiao Tung University, Taiwan

Research Interests

Functional data analysis, longitudinal data analysis
Semi-parametric methods, quasi-likelihood and estimating equations
Traffic flow analysis, Intelligent Transportation Systems
Statistical methods in aging
Biostatistics

Previous Service to the Profession

Co-editor, *Statistica Sinica* (2011–2014)
Managing Editor, *Statistica Sinica* (2008–2011)
Associate Editor, *Bernoulli* (2014–2015), *Biometrics* (2006–2010), *CSDA* (since 2015)
Council member, Bernoulli Society (2015–2017)
Co-Chair, 2016 CMStatistics
Panel Chair of Statistics, Taiwan Ministry of Science and Technology (2014–2016)
Board member, IMS-APRM programs (2012, 2014)
Program Committee, ICSA (2011–2013)

Brief Statement

The IMS has played a central role in an international society of probability and statistics. It is essential to make efforts to continue the excellence of IMS and maintain the current high-quality of IMS meetings and publications. The proactive interplay between theoretical and applied aspects of statistics is of vital importance to advance statistical science. The fast-growing field of data science brings us new challenges to take on, including statistical training and education accompanied by the contemporary development and data-intensive interdisciplinary research. It would be an honor for me to serve IMS and work toward these goals.

Mathias Drton

Professor, Department of Statistics,
University of Washington

w <http://www.stat.washington.edu/~md5/>



Education

PhD in Statistics, 2004, University of Washington, Seattle, USA.
Diplom in Applied Math, 2000, Universität Augsburg, Germany
DEA in Applied Math, 1999, Université Paul Sabatier, Toulouse, France

Research Interests

Graphical models
Algebraic statistics

Previous Service to the Profession

Associate Editor, *Annals of Statistics*, 2008–2016
Associate Editor, *Electronic Journal of Statistics*, 2012–
Associate Editor, *JRSS B*, 2007–2011
Chair, Member, IMS Committee on Special Lectures
Member, IMS Committee to Select Editors
IMS Program Chair, WNAR 2012

Brief Statement

I am honored to be nominated for a position on the IMS Council. The IMS has been my academic home ever since I joined the society as a graduate student. Through its outstanding journals, meetings, and guidance to young researchers it has played an important role in my professional development. If elected to the Council, I will work to help maintain and expand the mentorship the society provides to junior researchers, to promote the society's journals and conferences, and to strengthen the society's international and interdisciplinary presence.

Tadahisa Funaki

Professor, Graduate School of
Mathematical Sciences, University of
Tokyo

w <http://www.ms.u-tokyo.ac.jp/~funaki/>



Education

PhD in Mathematics, 1982, Nagoya University

Research Interests

Probability theory, stochastic analysis
Stochastic partial differential equations
Large scale interacting systems, scaling limits
Random interfaces

Previous Service to the Profession

President: Mathematical Society of Japan (2013–2015)
Associate Editor: *Annals of Probability* (1994–2000); *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques* (2005–2012); *Probability and Mathematical Statistics* (2006–2010); *Stochastic Partial Differential Equations: Analysis and Computations* (2012–) *Forum of Mathematics, Pi and Sigma* (2012–)
Scientific Committees of Conferences on Stochastic Processes and Their Applications: 30th (Santa Barbara, 2005), 34th (Osaka, 2010), 37th (Buenos Aires, 2014)
Member of Committee for Conferences on Stochastic Processes, Bernoulli Society (2001–2009)

Brief Statement

It is an honor for me to have been nominated as a candidate for the IMS Council. The purpose of IMS is to foster the development and dissemination of the theory and applications of statistics and probability. Needless to say, interdisciplinary relations to other areas of mathematics, sciences, industries increase and the activities are expanding worldwide. Japan has in particular a long tradition in modern probability, originating with Kiyosi Itô. If elected to the council, I would be privileged to serve the IMS and promote its activities.

Bénédicte Haas

Professor, LAGA (Laboratoire d'Analyse
Géométrie et Applications), Université
Paris 13, France

w <https://www.math.univ-paris13.fr/~haas/>



Education

PhD in Mathematics, 2004, University Paris 6

Research Interests

Probability theory
Random trees
Fragmentation processes
Self-similar Markov processes

Council Nominees continued

Previous Service to the Profession

Associate Editor, *ESAIM Probability & Statistics* (2013–)
Member of the scientific committee of the 40th SPA conference (Chalmers 2018)

Brief Statement

I believe the IMS is an important organization for our community, which does an excellent job (for example, through the journals and conferences it provides). I would be happy and honored to contribute to its various actions, to commit myself to the community and to give back what I benefited from. In particular, I would like to focus on the following issues, which I currently find among the most important: the careers of our young colleagues; gender issues; promotion of probability and statistics.

Peter Hoff

Professor, Department of Statistical Science, Duke University

w <https://pdhoff.github.io/>



Education

PhD in Statistics, University of Wisconsin, 2000
M.S. in Statistics, University of Wisconsin, 1994
BS in Mathematics, Indiana University 1993

Research Interests

Multivariate statistics
Bayes and empirical Bayes methods
Matrix and tensor-valued data

Previous Service to the Profession

Associate Editor, *Annals of Applied Statistics*, 2006–
Associate Editor, *Statistical Science*, 2011–2015
Associate Editor, *Journal of the Royal Statistical Society, Series B*, 2009–2013
ISBA Board of Directors, 2010–2012
Editorial Board Member, *SIAM Classics*, 2008–2010.

Brief Statement

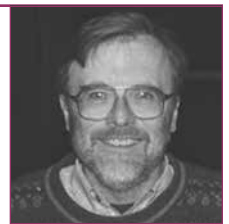
The primary service provided by the institute is the dissemination of new ideas and results to the statistics community and beyond. While the current journal system may work well for many authors and audiences, younger statistical researchers are increasingly accessing and disseminating information using alternative systems,

typically ones centered in other communities of the mathematical sciences. To ensure that Statistics maintains a strong position in the quantitative sciences, we should explore new approaches to scholarly dissemination that complement the existing journal system and that reflect recent changes to how people access and distribute information.

Gregory F. Lawler

George Wells Beadle Distinguished Service Professor in Mathematics and in Statistics University of Chicago

w <http://math.uchicago.edu/~lawler/>



Education

1979: PhD, Princeton University
1976: B.A., University of Virginia

Research Interests

Brownian motion and random walk
Models in statistical physics
Connections between complex analysis and probability
Critical phenomena and random fractals

Previous Service to the Profession

Co-founder, *Electronic Journal of Probability*, 1995
Organizer, Seminar on Stochastic Processes, 1996, 2005
IMS Committee on Fellows, 1997–2000 (chair 1999–2000)
American Mathematical Society (AMS) Editorial Boards Committee, 2000–2002 (chair 2002)
Editor, *Annals of Probability* (2006–2008)
Editor, *Journal of AMS*, 2009–2013
AMS Committee on Publications (2009–2011, chair 2011)
Scientific Research Board, American Institute of Mathematics, 2006–2010
Scientific Review Panel, Pacific Institute for the Mathematical Sciences, 2010–2014
Scientific Advisory Committee, Mathematical Sciences Research Institute, 2014–
AMS short course committee (2015–)
AMS Council, 2017–

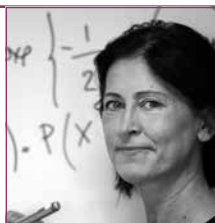
Brief Statement

While both probability and statistics are exciting research fields today, the frontiers of research keep getting farther apart. Both

fields are interacting much more with other areas of mathematics and computer science. Perhaps it is time for the IMS to consider whether it makes sense to stay a single society.

Antonietta Mira

Professor of Statistics and co-director, Interdisciplinary Institute of Data Science, Università della Svizzera italiana, Lugano, Switzerland and Università dell'Insubria, Como, Italy



www <http://usi.to/exz>

Education

Master (1996) and PhD (1998) in Statistics, University of Minnesota, USA

Doctorate in Methodological Statistics (1995), University of Trento, Italy

Research Interests

Computational statistics
 Markov chain Monte Carlo methods
 Adaptive importance sampling
 Population Monte Carlo and particle filters
 Perfect simulation, Slice sampler
 Computational algorithms for doubly intractable problems
 Approximate Bayesian Computation
 Bayesian methodology
 Exponential Random Graph and generalizations
 Mixture models, Latent variable models, hidden Markov models and graphical models
 Non parametric approach
 Model comparison via Bayes factor
 Data Science
 Analysis of social networks and relational data
 Computational algorithms and models for complex / high frequency data

Previous Service to the Profession

Board member of the ISBA Section on Bayesian Computation: elected for the term 2013–14 and re-elected for the term 2015–16
 Member of the ISBA council: elected for the term 2011–13
 Member of the Savage Award Selection Committee (2003–05 and 2010–11) of ISBA
 Member of the scientific program committee (co-chair) and of

the organizing committee (chair) of the second (2005), third (2008), fourth (2011), fifth (2014) and sixth (2016) joint international meeting IMS/ISBA, Institute of Mathematical Statistics/International Society for Bayesian Analysis Meeting
 Member of the scientific committee of the international (6 day) workshop on Challenges and Advances in High Dimensional and High Complexity Monte Carlo Computation and Theory, Banff (Canada), International Research Station for Mathematical Innovation and Discovery, 2012

Member of the scientific committee of the (3 day) workshop on Advances in Markov Chain Monte Carlo: Theory, Methodology and Applications, Edinburgh (April 2012)

Member of the scientific committee of the second Festival of Statistics and Demography, Treviso, Italy, 2016

Co-Editor *Bayesian Analysis*, 2008–16

Associate Editor of the *Journal of Computational and Graphical Statistics*, 2006–08

Associate Editor for *Statistica Sinica*, 2005–08

Brief Statement

It is a great honor to be nominated as candidate for the IMS council. If elected I would help IMS promote the fundamental role of probability and statistics in the area of data science building/strengthening links with neighboring fields, with the aim of following the whole value chain from data to uncertainty quantification and information retrieval, all the way to actionable knowledge. This can be achieved, among other things, by maintaining the excellent quality of publications and conferences sponsored by the IMS and attracting young talent to the field, motivating them to become IMS members.

Axel Munk

Director, Felix-Bernstein Institute for Mathematical Statistics in the Biosciences, Georg-August Universität Göttingen and Max Planck Institute for Biophysical Chemistry



www <http://www.stochastik.math.uni-goettingen.de/munk>

Education

1999 Habilitation, Ruhr Universität Bochum
 1994 Dr. rer nat. Georg-August Universität Göttingen

Council Nominees continued

1992 Diploma in Mathematics, Georg-August Universität
Göttingen

Research Interests

Statistical inverse problems
Statistical image and signal recovery
Shape analysis
Optimal transport
Biometric identification
Statistics in biophysics and molecular biology

Previous Service to the Profession

Associate editor for:

Annals of Statistics (2009–2012, 2016–)
Bernoulli (2012–)
Journal of the Royal Statistical Society, Series B (2013–2016)
Journal of Nonparametric Statistics (2008–)
Journal of Statistical Planning and Inference (2012–2016)
Metrika (2008–2012)
Statistics & Risk Modeling (2008–2014)
Electronic Journal of Statistics (2016–)

Council work:

Member of the European Regional Council of the Bernoulli Society (2008–2012)
Steering Committee Member of the International Society for Nonparametric Statistics (ISNPS)
Conference Organization and Program Committees (selection):
Statistical and Probabilistic Methods of Model Selection, 2005, Mathematical Research Center Oberwolfach
7th World Congress in Probability and Statistics, 2008, Singapore
SIAM Conference on Imaging Science, 2008, San Diego
1st International Society for Nonparametric Statistics (ISNPS).
Invited session on 2012, Chalkidiki
Frontiers in Nonparametric Statistics, 2012, Mathematical Research Center Oberwolfach
European Meeting of Statisticians, 2013, Budapest
Adaptive Statistical Inference, 2014, Mathematical Research Center Oberwolfach
MSR/IMS workshop on Data Science. 2015, Microsoft Research, Boston
Recovery of Invariant Structures, 2017, Mathematical Research Center Oberwolfach

Brief Statement

Serving on the IMS council is a great responsibility and honor. Promoting rigorous statistical and probabilistic thinking, modeling and analysis in the era of ‘big data’ appears to be a key challenge

nowadays. If elected, I envision to strengthen the role of IMS further in this direction. As a most prominent institution responsible for highest quality Journals and conferences in probability and statistics it is of utmost importance that it continues to play a central role in large scale data analysis among others. Furthermore, I will put my efforts to strengthen the scientific bridge between the continents, particular among young researchers, which I feel, is of particular importance these days.

Byeong Park

Professor, Department of Statistics, Seoul
National University

[w http://stat.snu.ac.kr/theostat/BUPark.htm](http://stat.snu.ac.kr/theostat/BUPark.htm)



Education

PhD 1987, University of California, Berkeley
M.S. 1984, Seoul National University
BS 1982, Seoul National University

Research Interests

Nonparametric function estimation
Semiparametric inference
Functional data analysis
High-dimensional models
Machine learning

Previous Service to the Profession

Chair, Local Organizing Committee, The 1st IMS Asia Pacific Rim Meeting, 2009
Co-Chair, IMS Committee on Asia and Pacific Rim Meeting, 2009–2014
Theme Day Co-Organizer, 59th World Statistics Congress (ISI), Hong Kong, 2013
Scientific Program Committee (Bernoulli Society Representative), 60th World Statistics Congress (ISI), Rio de Janeiro, 2015
Chair, Short Course Program Committee, 61th World Statistics Congress (ISI), Marrakech, 2017
Co-Chair, the 8th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), London, 2015
Ordinary Council member, Bernoulli Society, 2013–2015
Elected Council member, International Statistical Institute, 2013–2017
Scientific Secretary, Bernoulli Society, 2015–
Associate Editor, *Annals of Statistics*, 2007–2009 & 2013–

Associate Editor, *Journal of American Statistical Association*, 2017–
 Associate Editor, *Latin American Journal of Probability and Mathematical Statistics*, 2016–
 Associate Editor, *Journal of Nonparametric Statistics*, 2003–
 Associate Editor, *Annals of Institute of Statistical Mathematics*, 2006–
 Editor-in-Chief, *Journal of Korean Statistical Society*, 2008–2016
 Co-Editor, *Computational Statistics and Data Analysis*, 2016–

Brief Statement

The IMS has been faithful to its traditional roles of fostering the development of mathematical statistics and probability through high quality scholarly publications and scientific conferences. In this era of information technology, it needs to promote statistics and probability in many new emerging interdisciplinary areas. To strengthen its position as the leading international society for statisticians and probabilists, the IMS should also make a genuine effort to become truly global and increase its presence worldwide significantly, particularly in under-represented regions with growing research communities of statistics and probability. If elected, I would endeavor to help the IMS accomplish these missions.

Gesine Reinert

Professor, Department of Statistics,
 University of Oxford

[w https://www.stats.ox.ac.uk/people/academic_staff/gesine_reinert](https://www.stats.ox.ac.uk/people/academic_staff/gesine_reinert)



Education

PhD, 1994, University of Zurich, Switzerland

Research Interests

Applied probability, in particular Stein's method
 Network analysis
 Computational biology

Previous Service to the Profession

2012–15 IMS Nomination Panel
 Since 2016, Chair of the IMS Committee to Select Administrative Officers
 Associate editor, *Journal of Applied Probability*
 From 2010–2015 Associate editor, *Bernoulli*

Brief Statement

It would be a great honour to serve on the IMS Council. The IMS is an outstanding professional organisation which embraces change

while being rooted in solid scientific foundations. There are very fertile areas to be explored at the boundaries of statistics, including the boundary to decision making, the boundary to sciences such as biology and the boundary to probability. The inclusive approach of the IMS fosters such research across disciplines, in particular supporting early career researchers, and it would be a privilege to contribute to this endeavour.

Chiara Sabatti

Professor, Biomedical Data Science and
 Statistics, Stanford University

[w http://statweb.stanford.edu/~sabatti/](http://statweb.stanford.edu/~sabatti/)



Education

PhD in Statistics, 1998, Stanford University
 BS in Economic and Social Disciplines, 1993, Bocconi University

Research Interests

Statistical genomics
 Model selection
 Adjustments for multiplicity and selection
 Relation between Bayesian and frequentist methods in high dimensional data analysis

Previous Service to the Profession

Associate editor for *Genetics* (2012–), *JASA* (2011–15), *The Annals of Applied Statistics* (2010–), *BMC Bioinformatics* (2010–), *IEEE/ACM Transaction on Computational Biology and Bioinformatics* (2004–10)
 Grant review panel member for NSF and NIH
 Organizers of IPAM workshops “Sequence analysis towards system Biology” (2006) and “Computational genetics” (2007) and sessions at ASHG 2005, Interface 2006, and JSM 2011.

Brief Statement

Our profession enjoys a renewed popularity and the IMS has an important role to play in this landscape. It should continue to foster the advancement of our discipline, capitalizing also on the vitality of other research domains as optimization and computer science, etc. We have an opportunity to reaffirm and enable sound scientific methods, developing approaches that facilitate reproducibility and replicability of scientific results. And we need to reach out to the public at large, making sure that society has a “healthy” relationship with data: not assuming that “it speaks for itself” nor developing an indiscriminate and disabling skepticism.

IMS meetings around the world

Joint Statistical Meetings: 2017–2022

IMS sponsored meeting

IMS Annual Meeting @ JSM 2017:

July 29–August 3, 2017

Baltimore, MD

[w](https://www.amstat.org/meetings/jsm/2017/index.cfm) <https://www.amstat.org/meetings/jsm/2017/index.cfm>

Join us in Baltimore, Maryland, for one of the biggest statistical events of the year: with more than 6,000 attendees (including over 1,000 students) from 52 countries, and over 600 sessions, it's a busy few days! The theme is "Statistics: It's Essential."

Abstract submission is open now. Registration and housing open May 1.



IMS sponsored meetings: JSM dates for 2018–2022

JSM 2018

July 28–August 2,
2018

Vancouver, Canada

IMS Annual Meeting

@ JSM 2019

July 27–August 1,
2019, Denver, CO

JSM 2020

August 1–6, 2020

Philadelphia, PA

IMS Annual Meeting

@ JSM 2021

August 7–12, 2021,
Seattle, WA

2022 Joint Statistical

Meetings

August 6–11, 2022
Washington, D.C.

IMS co-sponsored meeting

19th Meeting of New Researchers in Statistics and Probability

July 27–29, 2017

Johns Hopkins University, Baltimore, MD

[w](http://groups.imstat.org/newresearchers/conferences/nrc.html) <http://groups.imstat.org/newresearchers/conferences/nrc.html>

Each year the IMS sponsors the New Researchers Conference (NRC) during the week preceding the Joint Statistical Meeting (JSM). This year, with JSM in Baltimore, the 19th NRC will be hosted by Johns Hopkins University from July 27–29.

This conference promotes interaction and networking among new researchers in biostatistics, statistics, and probability. The participants will present their research via a short expository talk and a poster and mingle throughout the day. Senior researchers from across these fields will give longer talks, as well as panels on teaching, mentoring, publishing, and grant writing. The meeting covers a wide range of topics in statistics and applied statistics, and some probability.

Anyone who has received a PhD in or after 2012, or expects to receive a PhD by the end of 2017, is eligible to apply. We expect that most or all travel costs to the conference will be covered.

The deadline for application is **March 27, 2017**.

More information can be found at the New Researchers site: <http://groups.imstat.org/newresearchers/conferences/nrc.html>.

Organizers: Elizabeth Ogburn, Bloomberg School of Public Health; Vince Lyzinski, Whiting School of Engineering, Johns Hopkins University.

IMS sponsored meeting

Joint 2018 IMS Annual Meeting and 12th International Vilnius Conference on Probability Theory & Mathematical Statistics

July 2–6, 2018

Vilnius, Lithuania

w TBC

The 2018 IMS Annual Meeting will be held in beautiful Vilnius, the capital of Lithuania, in conjunction with the 12th Vilnius Conference on Probability Theory and Mathematical Statistics. The Program Co-chairs are Peter Bühlmann (IMS) and Vygantas Paulauskas (Vilnius). The Local Chair is Remigijus Leipus. Details to follow.

IMS co-sponsored meeting

Bernoulli/IMS 10th World Congress in Probability and Statistics

August 17–21, 2020

Seoul, South Korea

w TBC

The next World Congress in Probability and Statistics will be in Seoul, South Korea.

At a glance:

forthcoming
IMS Annual
Meeting and
JSM dates

2017

IMS Annual Meeting

@ JSM: Baltimore,
MD, July 29 –
August 3, 2017

2018

IMS Annual Meeting:

Vilnius, Lithuania,
July 2–6, 2018

JSM: Vancouver,
Canada, July 28–
August 2, 2018

2019

IMS Annual Meeting @

JSM: Denver, CO,
July 27–August 1,
2019

2020

IMS Annual Meeting/

10th World Congress:

Seoul, South
Korea, August
17–21, 2020

JSM: Philadelphia,
August 1–6, 2020

2021

IMS Annual Meeting

@ JSM: Seattle, WA,
August 7–12,
2021

2018 IMS Asia Pacific Rim Meeting**NEW****June 26–29, 2018****Singapore****w** TBC

The next IMS Asia Pacific Rim meeting (IMS-APRM) will be held in Singapore from June 26–29, 2018. Details are forthcoming. Please mark the date in your diaries!

IMS co-sponsored meeting**The 5th Workshop on Biostatistics and Bioinformatics****May 5–7, 2017****Atlanta, Georgia, USA****w** <http://math.gsu.edu/~yichuan/2017Workshop>

Biostatistics and Bioinformatics have been playing a key and important role in statistics and other scientific research fields in recent years. The goal of this workshop is to stimulate research and to foster the interaction of researchers in Biostatistics & Bioinformatics research areas. The workshop will provide the opportunity for faculty and graduate students to meet the top researchers in a small group setting, identify important directions for future research, facilitate research collaboration.

The Keynote speaker is Tony Cai. Invited speakers are: Jie Chen, Ying Guo, Timothy Hanson, Benjamin Haaland, Faming Liang, Lei Liu, Limin Peng, Lily Xu, Feifang Hu, Ming Tan, Hongzhe Li, Ying Yuan, Yajun Mei, Weixin Yao and Liang Li.

Travel support for young and minority researchers

The workshop will be providing partial travel awards to selected conference participants. Priority will be given to senior graduate students, post-graduate, recent PhD's, junior faculty, and under-represented groups. To be considered for a travel award you must submit a poster abstract and one application letter. The application letter should state why you would like to participate in the workshop, your research activity, your PhD University with how many years and advisor's name, and a brief description of the travel support. Applications will be accepted until it is full, and the deadline for submitting a poster is **April 30**. They should be emailed to Professor Yichuan Zhao at yichuan@gsu.edu.

Register now

Registration is open until **April 30, 2017**. See <http://math.gsu.edu/~yichuan/2017Workshop/registration.html>. Please email the organizer Dr. Yichuan Zhao at yichuan@gsu.edu with any questions.

IMS co-sponsored meeting**UPDATED****39th Conference on Stochastic Processes and their Applications (SPA)****July 24–28, 2017. Moscow, Russia****w** <http://www.spa2017.org/>

Registration is now open for the 39th Conference on Stochastic Processes and their Applications (SPA 2018) in Moscow.

The conference will feature the following keynote lectures:

- Lévy Lecture: Grigorii Olshanski
- Doob lecture: Vladimir Bogachev
- IMS Medallion lectures: Takashi Kumagai and Marta Sanz-Solé
- Schramm lecture: Richard Kenyon
- Döblin Prize lecture: Allan Sly
- Itô prize lecture: Noemi Kurt

Travel support [deadline April 1]: We have limited funds to support young scientists to attend the meeting. A travel award covers the registration fee and accommodation for one person. Travel expenses are not covered. Please send your request for financial support to info@spa2017.org.

IMS co-sponsored meeting**NEW****Bayesian Inference in Stochastic Processes (BISP)****June 13–15, 2017. Milan, Italy****w** <http://www.unibocconi.eu/bisp10>

The workshop will provide an opportunity to review, discuss and explore developments on Bayesian inference in stochastic processes, gathering leading experts and talented young scholars working on the theory and the applications of stochastic processes, in a Bayesian framework. BISP is a biannual international workshop, now in its 10th edition. BISP-10 is endorsed by IMS, ISBA and the Italian Statistical Society (SIS).

BISP10 is dedicated to **Pietro Muliere**, on his 70th birthday. It will be preceded by a one-day conference on “Recent Developments in Bayesian Theory and Stochastic Processes” in his honor, to celebrate his influential research contributions in these fields: www.unibocconi.eu/muliereconference



Pietro Muliere

IMS co-sponsored meeting**40th Conference on Stochastic Processes and their Applications (SPA)****June 11–15, 2018. Gothenburg, Sweden****w** TBC

The 40th Conference on Stochastic Processes and their Applications (SPA 2018) will be held June 11–15, 2018, at the Chalmers University of Technology in Gothenburg, Sweden.

More IMS meetings around the world

IMS co-sponsored meeting

Bayesian Nonparametrics

June 26–30, 2017

Ecole Normale Supérieure, Paris, France

[w](https://www.ceremade.dauphine.fr/~salomond/BNP11/index.html) <https://www.ceremade.dauphine.fr/~salomond/BNP11/index.html>

The 11th Bayesian nonparametrics (BNP) meeting will be held in Paris from the 26th to the 30th of June at Ecole Normale Supérieure. The Bayesian nonparametrics conference is a bi-annual international meeting bringing together leading experts and talented young researchers working on applications and theory of nonparametric Bayesian statistics. It is an official section meeting of the Bayesian Nonparametrics section of the International Society for Bayesian Analysis (ISBA). Details to follow.

IMS co-sponsored meeting

The 10th ICSA International Conference December 19–22, 2016. Shanghai, China

[w](http://www.math.sjtu.edu.cn/conference/2016icsa/) <http://www.math.sjtu.edu.cn/conference/2016icsa/>

The conference will be held at Xuhui campus of Shanghai Jiao Tong University in China. The theme is *Global Growth of Modern Statistics in the 21st Century*. The plenary speakers are Jim Berger, Tony Cai, Kai-Tai Fang, Zhiming Ma, Marc A. Suchard, Lee-Jen Wei and C.F. Jeff Wu.

IMS co-sponsored meeting

6th Workshop on Stochastic Methods in Game Theory

May 5–13, 2017. Erice, Sicily, Italy

[w](https://sites.google.com/site/ericegametheory2017) <https://sites.google.com/site/ericegametheory2017>

Many decision problems involve elements of uncertainty and of strategy. Most often the two elements cannot be easily disentangled. The aim of this workshop is to examine several aspects of the interaction between strategy and stochastics. Various game theoretic models will be presented, where stochastic elements are particularly relevant either in the formulation of the model itself or in the computation of its solutions. The speakers are scholars in stochastics, economics, operations research, computer science, mathematics, control engineering. See website for details.

IMS sponsored meeting

WNAR/IMS Meeting

June 24–28, 2017

Santa Fe, New Mexico, USA

The WNAR/IMS 2017 Meeting will be in Santa Fe, New Mexico, at the Eldorado Hotel & Spa. The social program includes a Welcome Reception on Sunday June 25, the Reception after Presidential Invited Speaker on Monday June 26, and Banquet dinner on Tuesday June 27.

IMS co-sponsored meeting

Reproducibility of Research: Issues and Proposed Remedies

March 8–10, 2017. Washington DC, USA

[w](http://www.nasonline.org/programs/sackler-colloquia/upcoming-colloquia/) <http://www.nasonline.org/programs/sackler-colloquia/upcoming-colloquia/> This meeting is one of the Arthur M. Sackler Colloquia, which address scientific topics of broad and current interest that cut across the boundaries of traditional disciplines.

IMS co-sponsored meeting

2017 IMS-China International Conference on Statistics and Probability

June 28–July 1, 2017

Nanning, Guangxi Province, China

[w](#) TBC

LOC chair: Zijia Peng [e](mailto:pengzijia@126.com) pengzijia@126.com.

Scientific program chair: Ming Yuan [e](mailto:myuan@stat.wisc.edu) myuan@stat.wisc.edu.



ENAR 2017 Spring Meeting

March 12–15, 2017, Washington DC

The 2017 ENAR Spring Meeting will be held at the Washington Hilton in Washington, DC from March 12–15, 2017. The meeting brings together researchers and practitioners from academia, industry and government, connected through a common interest in Biometry.

Take advantage of the scientific program which will cover a wide range of topics of great interest to both researchers and practitioners, such as, data sciences (big data), genomics, clinical trials, neuroimaging, biomarkers, health policy, electronic health records, ecology, and epidemiology.

The 2017 ENAR Spring Meeting offers a program of short courses, tutorials and roundtables. Presented by well-known experts, the short courses and tutorials will cover a variety of topics including: Bayesian methods in drug development, personalized medicine trial designs, analysis of brain imaging data, data sciences and high performance statistical computing, early phase clinical trials, statistical leadership and influence, graphics for clinical trial data, and software applications for group sequential and adaptive designs, Bayesian modeling and analysis, and multiplicity problems.



ENAR 2017–2019 dates

IMS sponsored meetings

March 12–15, 2017: in Washington DC

March 25–28, 2018: in Atlanta, GA

March 24–27, 2019: in Philadelphia, PA

March 22–25, 2020: in Nashville, TN

[w](http://www.enar.org/meetings/future.cfm) <http://www.enar.org/meetings/future.cfm>

Other meetings and events around the world

Southeastern Probability Conference

May 15–17, 2017

Durham, NC, USA

w <https://sites.duke.edu/sepc/>

This special edition of the Southeastern Probability Conference will focus on interacting particle systems, random graphs, stochastic growth models, and their applications in biology, ecology, and statistical physics. It is also an occasion to honor the contributions of Professor **Rick Durrett** on the occasion of his 65th birthday.

Some financial support is available through a grant from the National Science Foundation. Junior researchers and members of under-represented groups are especially encouraged to apply for financial support.

Confirmed speakers include: David Aldous, Antonio Auffinger, Ted Cox, Christina Curtis, Michael Damron, Alison Etheridge, Elchanan Mossel, Robin Pemantle, Sarah Penington, Ed Perkins, Daniel Remenik, Sebastien Roch, Timo Seppäläinen and Allan Sly.

Quantum Computing and its applications

March 16, 2017, Washington DC

w <https://statistics.columbian.gwu.edu/workshop-quantum-computing-and-its-application>

A one-day workshop on Quantum Computing and its applications in drug development will take place on Thursday March 16, 2017 at George Washington University (Foggy Bottom campus), Washington, DC, immediately following ENAR 2017 Spring meeting (March 12–15, Washington Hilton, Washington, DC). The workshop is co-organized by GWU Department of Statistics, Lockheed Martin Corporation and ICON Plc. The workshop will bring together researchers in the field of statistical applications of quantum computing in health care and drug development, and will feature overview presentations on quantum computing, talks on quantum algorithms and its links with statistics, as well as case studies and round table discussions.

For more details, see the website above, or contact Wanying Zhao at wzhao14@gwu.edu, Feifang Hu at feifang@email.gwu.edu, or Sergei Leonov at Sergei.Leonov@iconplc.com

2017 Women in Statistics and Data Science Conference

October 19–21, 2017, La Jolla, California

w TBC

WSDS2016 brought together nearly 400 talented women for an inspiring, mind-opening conference—a tremendous experience that left attendees excited for the future. Concurrent and Speed Abstract Submission will be open March 1–April 20.

The 14th Graybill Conference on Statistical Genetics and Genomics

June 5–7, 2017

Fort Collins, CO, USA

w <http://graybill.wolpe2.natsci.colostate.edu/>

Statistical genomics and genetics have been growing remarkably fast and covering more and more topics in both fields, and nowadays they are essential parts of modern biological and medical researches. The goal of the conference is to provide an opportunity for statisticians and bioinformaticists, as well as biologists, and graduate students to generate and share ideas for new creative research in both statistics and genomics. The keynote speakers are Dr. Xihong Lin, Dr. Kathryn Roeder, and Dr. John Storey.

Sixth International Workshop in Sequential Methodologies

June 20–23, 2017. Rouen, France

w <http://lmrs.univ-rouen.fr/RMR17/>

Professors Nitis Mukhopadhyay, Serguei Pergamenchtchikov and Alexander Tartakovsky are co-organizing the Sixth International Workshop in Sequential Methodologies (IWSM 2017).

The workshop will cover all aspects of sequential methodologies from theoretical developments in optimal stopping, sequential analysis, changepoint detection to different applications in mathematical finance, quality control, clinical trials, signal and image processing, among others. The deadline for organizing invited sessions is **March 2, 2017**. Plenary speakers include Lajos Horváth, University of Utah (USA), George Moustakides, University of Patras (Greece), Nitis Mukhopadhyay, University of Connecticut (USA), Tumulesh K. S. Solanky, University of New Orleans (USA). Abstract submission is open. To get more information about abstract submission, registration, hotels, etc. visit the website or email Professor Serguei Pergamenchtchikov (co-chair) at serge.pergamenchtchikov@univ-rouen.fr

Statistics and Modeling in Human and Social Sciences

March 28–30, 2017. Cairo University, Cairo, Egypt

w <http://feps.edu.eg/en/departments/statistics/conference/>

The main goal of this annual conference is to bring together statisticians, researchers and practitioners of Statistics and to enable them to discuss and present their research findings on various areas of Statistical Sciences and their applications. It would stimulate and facilitate wider technology and knowledge transfer of recent development as well as promote the collaboration among researchers on joint research work. The overall aim is to enhance the quality and usefulness of Statistics in solving societal problems such as environmental risk assessment.

More meetings around the world

Columbia–Princeton Probability Day 2017

March 31, 2017

Princeton, NJ, USA

[w http://orfe.princeton.edu/conferences/cp17/](http://orfe.princeton.edu/conferences/cp17/)

Main Speakers: Marek Biskup (UCLA), Mark Rudelson (Michigan), Vladas Sidoravicius (NYU), Fabio Toninelli (Lyon). Junior Speakers: Tatyana Shcherbina (Princeton), Yi Sun (Columbia).

Registration is free and will be open until March 24, 2017. The registration form can be found on the Probability Day website above.

8th General AMaMeF Conference

June 19–23, 2017

Amsterdam, The Netherlands

[w http://8amamef.nl](http://8amamef.nl)

AMaMeF stands for Advanced Mathematical Methods in Finance. Under this name a European research network was funded by the ESF from 2005 to 2010. Under the auspices of AMaMeF numerous conferences are still organized.

Plenary lectures during the 8th General Conference will be given by Fred Espen Benth, Carole Bernard, Bruno Bouchard, Sören Christensen, Christa Cuchiero, Paul Glasserman, Xin Guo, Jan Oblój, and Miklós Rásonyi. The program leaves ample room for contributed lectures and poster presentations.

Registration waivers and travel support: there is a limited number of grants (full fee waivers) for PhD students and postdocs. Priority to those whose supervisor is a member of the network, but others are invited to apply as well. To apply, see the website. The deadline for applications is April 1, 2017.

Abstract submission deadline is April 15, 2017. Early bird registration: May 1, 2017.

8th Western Conference in Mathematical Finance

March 24–25, 2017

University of Washington, Seattle

[w http://amath.washington.edu/wcmf](http://amath.washington.edu/wcmf)

With the recent financial crises, the growth of high-frequency and algorithmic trading and the continuous introduction of new regulations designed to safeguard the financial system, the landscape of the financial markets is changing quickly. These changes have opened up entirely new directions for research within the math finance community. It is the goal of the 8th WCMF to highlight research in these newly developing areas. In particular, a special emphasis will be given to asymptotics for parabolic PDEs, robust hedging, and stochastic portfolio theory. Attendance by early career researchers is encouraged.

The 2017 WCMF will take place on the University of Washington campus in Seattle. It is the eighth annual meeting of this group and the first time in Washington.

There are no registration fees for participants. Register via the website above.

ASA Symposium on Statistical Inference

October 11–13, 2017. Bethesda, MD

<http://ww2.amstat.org/meetings/ssi/2017/>

The ASA's statement on p -values and statistical significance addressed many incorrect practices in statistical inference. However, while the statement pointed out what not to do, it did not give much guidance on what to do. With this in mind, we're now pleased to announce the ASA Symposium on Statistical Inference (SSI), to be held October 11–13, 2017, in Bethesda, MD.

SSI 2017 will focus on specific approaches for advancing scientific methods in the 21st century, considering issues that affect not only research, but research funding, journal practices, career advancement, scientific education, public policy, journalism, and law.

Registration and housing open June 15, 2017.

NSF INCLUDES Conference: Multi-Scale Evaluation in STEM Education

February 23–24, 2017

Knoxville, Tennessee, USA

[w http://www.nimbios.org/IncludesConf/](http://www.nimbios.org/IncludesConf/)

NIMBioS and NISER are co-hosting an NSF INCLUDES Conference on Multi-Scale Evaluation in STEM Education. Effective program evaluation is an essential component of STEM education and workforce development. The conference and associated events will enhance participants' abilities to develop an evaluation plan that meets the needs of an INCLUDES Alliance Project. Participants will include individuals involved in current INCLUDES projects, those considering collaborating in such projects and STEM educators considering inclusion of formal evaluation in their projects. Examples of program evaluation developed by the program organizers are available at <https://www.stemeval.org>. The program consists of a conference, an online webinar (which has happened already), and a tutorial (Modern Methods in Program Evaluation, February 22, 2017).

Data Science Innovation Lab: Quantitative Approaches to Biomedical Data Science Challenges in our Understanding of the Microbiome
June 19–23, 2017

Wylie Inn and Conference Center, Beverly, MA

w <http://bigdatau.org/innovationlab2017>

Applications are invited for an Innovation Lab focused on Quantitative Approaches to Biomedical Data Science Challenges in our Understanding of the Microbiome taking place June 19–23, 2017 at the Wylie Inn and Conference Center in Beverly, MA. The Innovation Lab will focus on biomedical big data coming from the microbiome (e.g. the underlying metagenomic diversity, metabolomic profiles or other high-dimensional systems biology data coming from such organisms and the environments they inhabit).

The goal of the event is to foster the formation of new interdisciplinary collaborations that will generate creative strategies for addressing challenges associated with the visualization, modeling, and analysis of biomedical big data coming from the microbiome. Such challenges arise from multifaceted data structures like networks and images, sparse or missing data, streaming of non-stationary time series data, the need for integration from multiple sources of data, interaction effects, etc. This Innovation Lab is intended to bring together expertise from the mathematical, statistical, and biomedical fields, to address interdisciplinary topics in biomedical data science critical to the effective use of microbiome big data.

Early-career investigators (Assistant/Associate Professors) from a broad diversity of quantitative (e.g. Mathematics, Statistics, Biostatistics, and Computer Science) and biomedical (e.g. Biology, Clinical science, Ecology, Microbiology) disciplines are highly encouraged to apply. The example disciplines above are by no means limiting; the lab is open to any biomedical investigator who has research questions with an associated microbiome big data challenge or any quantitative investigator with relevant approaches and methodology to the analysis of microbiome big data. Selected participants will take part in a mentored, five-day workshop to form new interdisciplinary teams to tackle these data science challenges. At the end of the workshop, teams will have developed an idea for a research proposal that could be submitted to the NIH or NSF.

The 2017 Innovation Lab is being organized by the BD₂K Training Coordination Center and is supported by the National Institutes of Health and the National Science Foundation.

For more information about the Lab and the application process, please visit the website <http://bigdatau.org/innovationlab2017>. The deadline is **March 12th!**

2017 National Math Festival
Saturday, April 22, 2017. Washington DC

w <http://nationalmathfestival.org/2017-festival/>

The National Math Festival brings together some of the most influential mathematicians of our time to inspire and challenge participants to see math in new and exciting ways. Through a day of lectures, hands-on demonstrations, art, films, performances, puzzles, games, children's book readings, and more, we bring out unexpected sides of mathematics for everyone, from toddlers to adults of all ages. The National Math Festival is free and open to the public from 10:00 a.m. till 7:00 p.m. on Saturday, April 22, 2017 at the Walter E. Washington Convention Center in Washington DC.

Summer School on Advanced Bayesian Methods
September 11–15, 2017. KU Leuven, Belgium

w <https://ibiostat.be/seminar/summerschool2017/Summer2017Bayesian>

The Interuniversity Institute for Biostatistics and Statistical Bioinformatics is organizing for the first time a summer school on advanced Bayesian methods. During one week, two courses will be taught on specific topics in Bayesian methodology. The focus will be on Bayesian methods that are relevant for the applied statistician. Special attention will be devoted to novel statistical methodology.

In the first edition of the summer school the following two courses will be organized at KU Leuven (Belgium) from 11 to 15 September 2017:

- Three-day course (11–13 September) on **nonparametric Bayesian methods** by Dr. Alejandro Jara (Pontificia Universidad Católica, Chile): <https://ibiostat.be/seminar/summerschool2017/summer2017npBayes>
- Two-day course (14–15 September) on **Bayesian clinical trials** by Dr. Gary Rosner (Johns Hopkins University, USA): <https://ibiostat.be/seminar/summerschool2017/summer2017BayesCT>

The target audience consists of statisticians and/or epidemiologists with a sound background in statistics, but also with background in Bayesian methodology.

In the three-day course on nonparametric Bayesian methods, practical sessions will be organized, so participants are asked to bring along their laptop with the appropriate software (to be announced) pre-installed.

For more information about the courses (course instructors and course contents) and practicalities (registration, location, transportation, etc.), see the website.

More meetings around the world

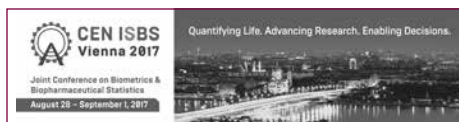
CEN-ISBS Vienna 2017: Joint Conference on Biometrics & Biopharmaceutical Statistics

28 August–1 September, 2017

Vienna, Austria

www.cenisbs2017.org

CEN-ISBS Vienna 2017 Joint Conference of the Central European Network of the International Biometric Society and the



International Society of Biopharmaceutical Statistics will take place in Vienna from Aug 28 to Sep 1, 2017. A satellite symposium will be co-organized by the European Medicines Agency. We are looking forward to an event integrating multiple perspectives on current biostatistical research and an excellent opportunity for organisations and companies to meet colleagues from academia, regulatory agencies and other organisations. The conference will feature keynote speakers including John P. A. Ioannidis (Stanford University, USA), Ulrich Dirnagl (Charité – Universitätsmedizin Berlin, Germany), Alison Smith (University of Wollongong, Australia) and Stijn Vansteelandt (University Ghent, Belgium).

We invite submission of abstracts for contributed oral and poster presentations for the CEN-ISBS Vienna 2017. Abstracts can be submitted online at the conference website. Submissions from a broad range of topics and perspectives are encouraged. Topics include Bayesian Approaches, Biometrical Methods in Agriculture, Forestry and Ecology, Computational Statistics and Machine Learning, Design of Experiments, Digital Health and Data Science, Early Phase Clinical Trials, Evidence synthesis and meta-analysis, Health Technology Assessments and Electronic Health Records, Hierarchical Models, High-dimensional Data and 'omics, Innovative Trial Designs (incl. Adaptive, Enrichment, Basket and Umbrella Designs ...), Longitudinal and Missing data, Modelling and simulation, Multiple testing, Observational Studies and Causal inference, Precision Medicine and Biomarker Assessment, Prediction and Classification, Quantitative decision making, Regulatory Statistics (Estimand, Extrapolation, Subgroup analysis ...), Small Populations, Statistical Methods in Epidemiology, Survival Analysis and Event History Analysis, etc.

Deadline for abstract submission of contributed presentations is **March 31, 2017**. The Scientific Programme Committee will evaluate all submitted proposals and notification of acceptance will be given by May 15, 2017.

Workshop on Statistical Perspectives of Uncertainty Quantification May 29–30, 2017. Georgia Tech Hotel, Atlanta, GA

<http://pwp.gatech.edu/spuq-2017>

Georgia Institute of Technology will host the first workshop on Statistical Perspectives of Uncertainty Quantification (SPUQ) in Atlanta, GA on May 29–30, 2017. The workshop will be held at the Georgia Tech Hotel and Convention Center. The details for registration, hotel accommodation, program, posters, and scholarships can be found in the workshop website: <http://pwp.gatech.edu/spuq-2017>

Uncertainty Quantification (UQ) is an emerging topic which encompasses computational, mathematical, and statistical methods for characterizing uncertainties involved in complex models. The objectives of the workshop are to bring together diverse ideas from the statistics community on UQ and to narrow the gap between UQ research in statistics and applied mathematics.

The workshop will consist of non-parallel sessions with presentations from eminent researchers who have made fundamental contributions to the field as well as selected young researchers. The presentations will focus on both methodology and applications of UQ. A poster session will be arranged to feature the research of other participants of the workshop. A limited number of scholarships are available to support the travel of doctoral students and young researchers.

Please contact one of the organizers below if you need additional details.

V. Roshan Joseph (roshan@gatech.edu), Co-Chair

David Higdon (dhigdon@vbi.vt.edu), Co-Chair

Matthew Plumlee (mplumlee@umich.edu)

Peter Qian (peter.qian@wisc.edu)

Benjamin Haaland (bhaaland3@gatech.edu)

RSS 2017 International Conference

September 4–7, 2017

Glasgow, United Kingdom

www.rss.org.uk/conference2017

The Royal Statistical Society's International Conference is the only UK-based conference where anyone interested in data analysis and statistics can come together to share information and network. The three-day conference programme offers a mix of keynote talks and sessions organised into 'streams' or topics, plus an equally diverse schedule of evening social events. Last year the conference attracted over 500 participants from all over the world, ranging from senior academic statisticians to new graduates and postgraduate students.

Workshop on Sparsity in Applied Mathematics and Statistics**June 1–2, 2017****Brussels, Belgium****w** <http://homepages.ulb.ac.be/~majansen/workshopSAMS2017/>

The objective of this two-day workshop is to bring together statisticians and applied mathematicians with different domains of expertise in order to stimulate interdisciplinary contacts. In particular, we encourage young researchers to participate in this workshop.

Sparsity in Applied Mathematics and Statistics is organised in the museum of Royal Belgian Institute of Natural Sciences. (<https://www.naturalsciences.be/en>).

Invited speakers are: Laure Blanc-Feraud, Université de Nice-Sophia Antipolis, France; Ivan Markovsky, Vrije Universiteit Brussel, Belgium; Richard Samworth, Cambridge University, UK; Goeran Kauermann, Ludwig-Maximilians-Universität München, Germany; and Francesco Stingo, Università degli Studi di Firenze, Italy.

Participants (and especially young researchers) are invited to submit an abstract for a contributed talk (20 to 30 minutes).

Registration is free but mandatory. Registration includes two lunches at the workshop.

The deadline for registration and abstract submission is April 15, 2017. For more information, registration, and abstract submission, see the website.

First Italian Meeting on Probability and Mathematical Statistics**June 19–22, 2017. Turin, Italy****w** <http://calvino.polito.it/~probat/torino2017>

The scope of the meeting is the scientific exchange between Italian mathematicians working in Probability and Mathematical Statistics in Italy or abroad. We also welcome talks from foreign researchers working in Italy. The participation is open to any interested scientist. The conference will include lectures of a few “seniors” between us, but the focus will be mainly on the work of new generations also through some plenary lectures. A direct contribution from the participants through the organization of sessions is welcome.

From Analysis to Stochastics: A Workshop along Ulrich Stadtmüller’s Scientific Interests**April 3–4, 2017****Ulm, Germany****w** <http://www.uni-ulm.de/?id=uli2017>Contact: Robert Stelzer **e** robert.stelzer@uni-ulm.de

The aim of this workshop is to bring together internationally leading as well as young researchers from the diverse but closely interrelated areas of analysis, probability and statistics. Likewise various applications with a focus on biometric and economic questions shall be covered. The selection of topics is closely related to the scientific interests of Ulrich Stadtmüller, since he started at Ulm University in the 1970s. The workshop takes place at Ulm University, Germany, from Monday, April 3rd to Tuesday, April 4th, 2017.

If you wish to attend the workshop, please fill out the registration form on the website at http://www.uni-ulm.de/fileadmin/website_uni_ulm/mawi.inst.050/RegistrationForm.pdf and send it back to Eva Nacca via e-mail, fax (please use the fax number given in the form) or regular mail by March 15, 2017.

Please note that the conference fee is 40 EUR for all participants and should be paid by March 15, 2017 (bank details on registration form). In case of queries regarding registration or the workshop itself, please contact Eva Nacca (eva.nacca@uni-ulm.de).

International Congress of Mathematicians 2018 (ICM 2018)**August 1–9, 2018. Rio de Janeiro, Brazil****w** <http://www.icm2018.org/>

From August 1st to 9th, 2018, Rio de Janeiro will host the International Congress of Mathematicians (ICM) in its largest and most traditional convention center: Riocentro, in the Barra da Tijuca neighborhood. During these nine days, some of the world’s best researchers in Mathematics and related areas will come together to share knowledge and take part in various activities, from prizes and technical talks to outreach events. Participants will also be able to enjoy Barra da Tijuca, with its lush landscape of beaches, mountains and lagoons, and its manifold leisure options.

Travel support: The Organizing Committee, IMPA and the Brazilian Mathematical Society will offer 500 travel grants for mathematicians, young and senior, from developing countries to attend the Congress; 200 of those grants are for mathematicians working in Latin-American countries. The list of eligible countries and detailed information on how to apply will be published soon. Applications to the Travel Grants Program open April 15, 2017, and close July 20, 2017. The list of grantees will be published by September 04, 2017. Travel support will be conditional on to registering to attend ICM 2018, and will be paid upon arrival to Rio de Janeiro, during the Congress.

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http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32374095

New Zealand: Wellington

Victoria University of Wellington

Senior Lecturer/Associate Professor in Data Science

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=31973989

New Zealand: Wellington

Victoria University of Wellington

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http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32636376

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Victoria University of Wellington

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The University of Manchester

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http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32604472

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UC Berkeley

Lecturer

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=30782008

United States: La Jolla, CA

University of California - San Diego

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http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32010019

United States: Riverside, CA

University of California, Riverside

Assistant Professor of Environmental Statistics in the College of Natural and Agricultural Sciences, University of California, Riverside

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32059026

United States: Riverside, CA

University of California, Riverside

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http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=31734100

United States: Riverside, CA

University of California, Riverside

Open-Rank Faculty Position in Geocomputation - Spatial Analysis Cluster Hire

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32491290

United States: Ames, IA

Iowa State University

Assistant, Associate, or Full Professor in Forensic Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32129208

United States: Chicago, IL

University of Chicago, Department of Statistics

William H. Kruskal Instructor

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32728656

United States: Cambridge, MA

Harvard University

Data Science Postdoctoral Fellow

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32297817

United States: Durham, NC

Duke University

Professor of the Practice (Masters Program Administrator)

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=31962743

United States: Reno, NV

University of Nevada, Reno

Professor/Chair, Mathematics & Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32605107

Continues on page 27

United States: Portland, OR**Portland State University**

Assistant to Associate Professor of Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32492220**United States: Philadelphia, PA****University of the Sciences**

Assistant Professor Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32588384**United States: Milwaukee, WI****University of Wisconsin-Milwaukee**

Assistant/Associate Professor in Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=32373893

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<http://jobs.imstat.org/>



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

March 2017



March 6–10: CIRM-Luminy, France. **Random Structures in Statistical Mathematical Physics**  <http://khanin-shlosman.weebly.com/research-school.html>



 **March 8–10:** Washington DC, USA. **Reproducibility of Research: Issues and Proposed Remedies**  <http://www.nasonline.org/programs/sackler-colloquia/upcoming-colloquia/>



 **March 12–15:** Washington DC, USA. **ENAR Spring Meeting**  <http://www.enar.org/meetings/future.cfm>

 **March 16:** Washington DC, USA. **Quantum Computing and its applications**  <https://statistics.columbian.gwu.edu/workshop-quantum-computing-and-its-application>



March 22–24: Bali, Indonesia. **ISI Regional Statistics Conference.**  <http://www.isi-rsc2017.org>


 **March 24–25:** Seattle, WA, USA. **8th Western Conference in Mathematical Finance**  <http://amath.washington.edu/wcmf>


 **March 28–30:** Cairo, Egypt. **Statistics and Modeling in Human and Social Sciences**  <http://feps.edu.eg/en/departments/statistics/conference/>


 **March 31:** Princeton, NJ, USA. **Columbia–Princeton Probability Day 2017**  <http://orfe.princeton.edu/conferences/cp17/>

April 2017

 **April 3–4:** Ulm, Germany. **From Analysis to Stochastics: A Workshop along Ulrich Stadtmüller's Scientific Interests**  <http://www.uni-ulm.de/?id=uli2017>

April 5–7: Barcelona, Spain. **4th Control, Decision and Information Technologies (CoDIT17)**  <http://codit2017.com>


April 17–21: Yulara (Ayers Rock), NT, Australia. **Applied Probability @ The Rock**  <http://www.maths.adelaide.edu.au/APatR/>

April 20–22: Fort Lauderdale, Florida, USA. **20th Artificial Intelligence and Statistics (AISTATS)**  www.aistats.org

Continues on page 28

International Calendar *continued*

April 2017 *continued*

 April 22: Washington DC, USA. 2017 National Math Festival **w** <http://nationalmathfestival.org/2017-festival/>

April 24–27: CIRM-Luminy, France. Qualitative Methods in KPZ Universality **w** <http://khanin-shlosman.weebly.com/conference.html>

April 26–28: Warwick, UK. InSPiRe Conference: Methodology for Clinical Trials in Small Populations and Rare Diseases **w** <http://warwick.ac.uk/inspireconference>


April 30–May 5: Ascona, Switzerland. Statistical Challenges in Single-Cell Biology **w** <https://www.bsse.ethz.ch/cbg/cbg-news/ascona-2017.html>

May 2017

May 3–5: Knoxville, TN, USA. NIMBioS Investigative Workshop: Species' Range Shifts in a Warming World. **w** http://www.nimbios.org/workshops/WS_rangeshifts

 May 5–7: Atlanta, GA, USA. The Fifth Workshop in Biostatistics and Bioinformatics **w** <http://math.gsu.edu/~yichuan/2017Workshop>


 May 5–13: Erice, Sicily, Italy. 6th Workshop on Stochastic Methods in Game Theory **w** <https://sites.google.com/site/ericemaththeory2017>


 May 15–17: Durham, NC, USA. Southeastern Probability Conference **w** <https://sites.duke.edu/sepc/>

 May 29–30: Atlanta, GA, USA. Statistical Perspectives of Uncertainty Quantification **w** <http://pwp.gatech.edu/spuq-2017>

May 31–June 2: Santorini, Greece. Thera Stochastics: A Mathematics Conference in Honor of Ioannis Karatzas **w** <http://www.math.columbia.edu/departement/thera/>

June 2017


 June 1–2: Brussels, Belgium. Sparsity in Applied Mathematics and Statistics **w** <http://homepages.ulb.ac.be/~majansen/workshopSAMS2017/>


 June 5–7: Fort Collins, CO, USA. 14th Graybill Conference on Statistical Genetics and Genomics **w** <http://graybill.wolpe2.natsci.colostate.edu/>


June 5–30: Vancouver, BC, Canada. PIMS-CRM Summer School in Probability **w** <http://www.math.ubc.ca/Links/ssprob17/>

June 6–9: London, UK. 17th Applied Stochastic Models and Data Analysis (ASMDA) **w** www.asmda.es


June 6–9: Yorktown Heights, NY, USA. ISBIS 2017: Statistics in Business Analytics **w** www.isbis2017.org

 June 19–22: Turin, Italy. First Italian Meeting on Probability and Mathematical Statistics **w** <http://calvino.polito.it/~probat/torino2017>

 June 19–23: Amsterdam, The Netherlands. 8th General AMaMeF Conference **w** <http://8amamef.nl>

 June 19–23: Beverly, MA, USA. Quantitative Approaches to Biomedical Data Science Challenges in our Understanding of the Microbiome **w** <http://bigdatau.org/innovationlab2017>

June 19–23: New York, USA. Dynamics, aging and universality in complex systems **w** <http://cims.nyu.edu/conferences/gba60/>

 June 20–23: Rouen, France. Sixth International Workshop in Sequential Methodologies **w** <http://lmrs.univ-rouen.fr/RMR17/>

June 20–23: Riverside, CA, USA. 10th International Conference on Multiple Comparison Procedures **w** <http://www.mcp-conference.org/hp/2017>

 June 24–28: Santa Fe, NM, USA. 2017 WNAR/IMS Meeting **w** TBC

Are you organizing a meeting? It's free, and easy, to get it listed here, and also at the online calendar, www.imstat.org/meetings/.

Submit the details at imstat.org/submit-meeting.html

June 25–28: Cairns, QLD, Australia. 37th International Symposium on Forecasting **w** <https://forecasters.org/isf/>

June 25–July 15: Park City, Utah, USA. Random Matrix Theory Summer Session **w** <https://pcmi.ias.edu/upcoming>

 June 26–30: Paris, France. Bayesian Nonparametrics **w** <https://www.ceremade.dauphine.fr/~salomond/BNP11/index.html>

June 26–30: Delft, The Netherlands. 10th Conference on Extreme Value Analysis: EVA 2017 **w** www.eva2017.nl

 June 28–July 1: Nanning, Guangxi Province, China. 2017 IMS-China International Conference on Statistics and Probability **w** TBC

July 2017


July 2–7: Groningen, The Netherlands. IWSM 2017 **w** <http://iws2017.webhosting.rug.nl/>

July 3–7: Wollongong, NSW, Australia. ICORS 2017 **w** <http://niasra.uow.edu.au/icors2017/index.html>

July 9–13: Vigo, Spain. 38th Annual Conference of the International Society for Clinical Biostatistics **w** TBC

July 16–21: Marrakech, Morocco. 61st ISI World Statistics Congress 2017 **w** <http://www.isi2017.org/>

 July 24–28: Moscow, Russia. 39th Conference on Stochastic Processes and their Applications (SPA) **w** TBC

 July 29 – August 3: Baltimore, USA. IMS Annual Meeting at JSM 2017 **w** <http://amstat.org/meetings/jsm/>

Come to JSM 2017: this is Baltimore Inner Harbor at night (photo by Mitch Lebovic)



August 2017

August 12–14: St Louis, MO, USA: Second Workshop on Higher-Order Asymptotics and Post-Selection Inference


(WHOA-PSI)² **w** <http://www.math.wustl.edu/~kuffner/WHOA-PSI-2.html>


August 25–29: Debrecen, Hungary. XXXIV International Seminar on Stability Problems for Stochastic Models **w** <https://arato.inf.unideb.hu/isspsm2017/index.php>

August 28–September 1: New York, USA. Dyson–Schwinger equations, topological expansions, and random matrices **w** <http://www.math.columbia.edu/departement/probability/seminar/guionnet.html>

August 28–September 1: Vienna, Austria. CEN-ISBS Vienna 2017 Joint Conference on Biometrics & Biopharmaceutical Statistics **w** www.cenisbs2017.org


September 2017

 September 4–7: Glasgow, UK. RSS 2017 International Conference **w** www.rss.org.uk/conference2017

 September 11–15: Leuven, Belgium. Summer School on Advanced Bayesian Methods **w** <https://ibiostat.be/seminar/summerschool2017/Summer2017Bayesian>

September 25–27: Washington DC. 2017 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop **w** <http://ww2.amstat.org/meetings/biopharmworkshop/2017/>

October 2017

 October 11–13: Bethesda, MD, USA. ASA Symposium on Statistical Inference **w** <http://ww2.amstat.org/meetings/ssi/2017/>

 October 19–21: La Jolla, CA, USA. 2017 ASA Women in Statistics and Data Science Conference **w** TBC

March 2018

 March 25–28: Atlanta, GA, USA. ENAR Spring Meeting **w** <http://www.enar.org/meetings/future.cfm>

June 2018

  June 26–29: Singapore. 2018 IMS Asia Pacific Rim Meeting (IMS-APRM) **w** TBC

International Calendar *continued*



Lestat (Jan Wehlich)

Vilnius, "baroque beauty of the Baltic" (says Lonely Planet) and capital of Lithuania, is the location of the 2018 IMS annual meeting (July 2–6, 2018)

July 2018


 July 2–6: Vilnius, Lithuania. **Joint 2018 IMS Annual Meeting and 12th International Vilnius Conference on Probability Theory & Mathematical Statistics** **w** TBC

July 9–13: Edinburgh, UK. **ISBA 2018 World Meeting** **w** TBC

July 16–20: Bristol, UK. **3rd International Workshop on Statistical Modelling** **w** <http://www.statmod.org/workshops.htm>

 July 28 – August 2: Vancouver, Canada. **JSM 2018** **w** <http://amstat.org/meetings/jsm/>

August 2018

 August 1–9: Rio de Janeiro, Brazil. **International Congress of Mathematicians 2018 (ICM 2018)** **w** <http://www.icm2018.org/>

March 2019

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

July 2019

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

 July 27–August 1: Denver, CO, USA. **IMS Annual Meeting at JSM 2019** **w** <http://amstat.org/meetings/jsm/>

March 2020

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

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://amstat.org/meetings/jsm/>

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

August 2021

 August 7–12: Seattle, WA, USA. **IMS Annual Meeting at JSM 2021** **w** <http://amstat.org/meetings/jsm/>

August 2022

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

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 <http://www.imstat.org/submit-meeting.html>. We'll list them here in the Bulletin, and on the IMS website too, at www.imstat.org/meetings/

Membership and Subscription Information

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Subscriptions are available on a calendar-year basis. **Individual subscriptions** are for the personal use of the subscriber and must be in the name of, paid directly by, and mailed to an individual. Individual subscriptions for 2017 are available to *The Annals of Applied Probability* (\$194), *The Annals of Applied Statistics* (\$194), *The Annals of Probability* (\$194), *The Annals of Statistics* (\$194), *Statistical Science* (\$164), and *IMS Bulletin* (\$115). **General subscriptions** are for libraries, institutions, and any multiple-readership use. Institutional subscriptions for 2017 are available to *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Probability*, and *The Annals of Statistics* (each title \$490 online only / \$522 print+online), *Statistical Science* (\$280/\$296), and *IMS Bulletin* (\$123 print). Airmail rates for delivery outside North America are \$140 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.

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Full page (within usual <i>Bulletin</i> margins)	7.5" wide x 9.42" high (190 mm x 239 mm)	\$420

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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
April/May
2017

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