Volume 42 • Issue 6

IMS Bulletin

September 2013

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COPSS Awards at JSM

COPSS, the Committee of Presidents of Statistical Societies (IMS, ASA, SSC and ENAR/WNAR) presented its 2013 awards to four IMS members, three of whom are Fellows, at the Joint Statistical Meetings in Montreal on August 7.

The biannual George W. Snedecor Award honors an individual who was instrumental in the development of statistical theory in biometry. The 2013 Snedecor Award was presented to John David (Jack) Kalbfleisch, University of Michigan, *"For foundational contribution to the field of biometry, especially for innovative analysis methods for failure time data, event history analysis, mixture models and likelihood theory. For influential collaborative research, especially in the area of solid organ transplantation. For exceptional mentoring of junior researchers, exemplary senior leadership of statistical groups, and steadfast service to the profession."*

The F. N. David Award recognizes a female statistician who exemplifies the contributions of Florence Nightingale David, an accomplished statistician in combinatorial probability theory. The 2013 F. N. David Award was presented to Lynne Billard, University of Georgia, *"For her world-leading research in sequential analysis, stochastic processes, epidemiology and symbolic data analysis; for her extensive collaborations, especially in poultry science and computer science; for exceptional contributions to leadership in the profession; and for outstanding contributions as a role model, fostering opportunities especially for academic women as leaders, researchers, administrators, and educators."*

The COPSS Presidents' Award goes annually to a young member of the statistical community in recognition of outstanding contributions to the profession of statistics. This year's recipient is Marc A. Suchard, University of California, Los Angeles, *"For extraordinarily wide-ranging and insightful contributions to the statistical sciences in the areas of Bayesian inference, computation and stochastic processes; for innovative statistical modeling and novel computational techniques for formerly intractable problems in molecular epidemiology, evolutionary medicine, phylogenetics, phylogeography, computational biology and emerging massive public health data sets; for a panoply of flexible, well-regarded and widely used statistical software tools for the applied sciences; for extensive and creative statistical applications across an impressive range of human inquiry; and for service to the profession as a prolific and dedicated mentor of the next generation of statisticians.*

Finally, the recipient of the R.A. Fisher Award & Lectureship, established in 1963 to honor the contributions of Sir Ronald Aylmer Fisher and the work of a present-day statistician, was Peter J. Bickel, University of California, Berkeley, *"For groundbreaking contributions to semiparametric and nonparametric methods, adaptive estimation, and robust statistics; for applying in-depth and intricate theoretical analysis to realistic problems in the biological sciences; for penetrating and insightful analysis of scientific methodology which has yielded a lasting impact on our understanding of both theory and methods; and for exceptional training and mentoring of students, leadership of professional societies, and leadership of his academic department."*

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Contact information

Executive Committee

IMS Members' News

Sourav Chatterjee awarded 2013 Loève Prize


Sourav Chatterjee

The 2013 Line and Michel Loève International Prize in Probability has been awarded to Sourav Chatterjee of the Courant Institute. The prize, which carries a monetary award of $30,000, will be presented at a ceremony in Berkeley to be held in Fall 2013.

Sourav Chatterjee received his PhD in 2005, advised by Persi Diaconis at Stanford University. His work has extraordinary breadth. On one side he has brought new ideas to bear upon classical topics—an extension of Lindeberg's proof of the central limit theorem to an invariance principle for arbitrary smooth functions of weakly dependent random variables, a simpler proof of the famous KMT theorem on strong approximation of a random walk by Brownian motion, and a new version of Stein's method, reducing a large class of normal approximation problems to variance bounding exercises. In other work, he has taken up Talagrand's *Challenge to Mathematicians* (to give rigorous analysis of spin glass models from statistical physics) by providing analyses of random overlap structures and showing that the Sherrington-Kirkpatrick model is chaotic under small perturbations of the couplings at any temperature in the absence of an external field. Other topics to which he has made substantial contributions include large deviations for random graphs and random matrices, first-passage percolation, and probabilistic methods for discrete nonlinear Schrödinger equations.

Among his other honors, Sourav received the IMS Tweedie New Researcher Award in 2008, and was a Medallion Lecturer in 2012.

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

Mitchell Prize awarded to Mike West and co-authors

The Mitchell Prize is awarded in recognition of an outstanding paper that describes how a Bayesian analysis has solved an important applied problem. The Prize is jointly sponsored by the Section on Bayesian Statistical Science (SBSS) of the ASA, the International Society for Bayesian Analysis (ISBA), and the Mitchell Prize Founders' Committee.

Mike West, the Arts & Sciences Professor of Statistics & Decision Sciences at Duke University, received the award at JSM, with his co-author Ioanna Manolopoulou (University College London), on behalf of their co-authors Melanie Matheu, Mike Cahalan and Tom Kepler. The award was for their studies of spatio-dynamic modelling in systems biology/immunology in their 2012 *JASA* paper entitled "Bayesian Spatio-Dynamic Modelling in Cell Motility Studies: Learning Nonlinear Taxic Fields Guiding Immune Response."

This 2012 award winning paper was cited, "for its sophisticated development of model-based inference methods in the expanding field of immune-cell dynamics."

Sastry Pantula Dean Oregon State Univ

Sastry Pantula has moved to Oregon State University as Dean of the College of Science. Sastry served on the faculty of North Carolina State University since 1982, and is a former director of the National Science Foundation's Division of Mathematical Sciences.

IMS Members' News

IMS Special Invited Lectures in 2014

Each year the IMS Committee on Special Lectures selects a number of leading statisticians and probabilists to give invited lectures at IMS sponsored and co-sponsored meetings around the world. In 2014, there will be a Wald, Neyman and Blackwell lecture, and eight Medallion lectures.

The 2014 Wald Lectures will be given by Thomas G. Kurtz, University of Wisconsin–Madison at the IMS Annual Meeting in conjunction with the Australian Statistical Conference, held July 7–10, 2014, in Sydney. At the same meeting will be a Neyman Lecture from Peter Donnelly, University of Oxford; Schramm Lecture from Terry Lyons, University of Oxford; and five Medallion Lectures, given by Nina Gantert, Technische Universität München; Martin Hairer, University of Warwick; Timo Seppäläinen, University of Wisconsin–Madison; Matthew Stephens, University of Chicago; and Harrison Zhou, Yale University.

At the WNAR/IMS meeting in Honolulu, June 15–18, 2014, there will be a Medallion Lecture from Tilmann Gneiting, Universität Heidelberg.

The 37th Conference on Stochastic Process and their Applications, in Buenos Aires (July 28–August 1, 2014) will feature a Medallion Lecture from David Nualart, University of Kansas.

Last but not least, at the Joint Statistical Meetings in Boston (August 2–7, 2014), there will be the inaugural Blackwell Lecture, by Gareth Roberts, University of Warwick, as well as a Medallion Lecture from Mathias Drton, University of Chicago.

Shahjahan Khan elected to Bangladesh Academy of Science

Shahjahan Khan, University of Southern Queensland, Australia, has recently been elected as an Expatriate Fellow of the Bangladesh Academy of Science, the leading scientific organization in Bangladesh and a leading representative to the government in matters of science and research.

"It's an excellent feeling to be recognised for your work by members of the scientific community in the country of your birth," Professor Khan said. "The academy engages with the government in the development and promotion of science within Bangladesh and the academy's input is highly valued by the policy makers. I can also help with organising seminars, conferences and workshops such as the International Statistics Conferences that I helped organize in 2006 and 2008 in Bangladesh."

Professor Khan has served as the President of ISOSS (2005–11), an international professional organization of statisticians, organised four international conferences in Malaysia, Egypt, Pakistan and Qatar, and has served as the Founding Chief Editor of the *Journal of Applied Probability and Statistics* since 2006.

The Bangladesh Statistical Association awarded Professor Khan their prestigious Qazi Motahar Hossain Gold Medal in 2012 in recognition of his scientific contribution and promotion of statistics.

If you hear of the passing of an IMS member, please let us know so we can organize an obituary. Email bulletin@imstat.org

Eswar Phadia retires

Eswar Phadia has retired from the William Paterson University of New Jersey, and joined the Department of Statistics at Wharton School of Business, University of Pennsylvania, as a Visiting Scholar. His email address is ephadia@wharton.upenn.edu.

= access published papers online

IMS Journals and Publications

Annals of Statistics: Peter Hall and Runze Li
http://imstat.org/aos
http://projecteuclid.org/aos

Annals of Applied Statistics: Stephen Fienberg
http://imstat.org/aoas
http://projecteuclid.org/aoas

Annals of Probability: Krzysztof Burdzy
http://imstat.org/aop
http://projecteuclid.org/aop

Annals of Applied Probability: Timo Seppäläinen
http://imstat.org/aap
http://projecteuclid.org/aoap

Statistical Science: Jon Wellner
http://imstat.org/sts
http://projecteuclid.org/ss

IMS Collections
http://imstat.org/publications/imscollections.htm
http://projecteuclid.org/imsc

IMS Monographs and *IMS Textbooks:* David Cox
http://imstat.org/cup/

IMS Co-sponsored Journals and Publications

Electronic Journal of Statistics: George Michailidis
http://imstat.org/ejs
http://projecteuclid.org/ejs

Electronic Journal of Probability: Michel Ledoux
http://ejp.ejpecp.org

Electronic Communications in Probability: Anton Bovier
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: Thomas Lee
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: Laurent Saloff-Coste
http://imstat.org/ps
http://www.i-journals.org/ps/

IMS-Supported Journals

Annales de l'Institut Henri Poincaré (B): Thierry Bodineau & Lorenzo Zambotti http://imstat.org/aihp
http://projecteuclid.org/aihp

Bayesian Analysis: Marina Vannucci UPDATED
http://ba.stat.cmu.edu

Bernoulli: Eric Moulines
http://www.bernoulli-society.org/
http://projecteuclid.org/bj

Brazilian Journal of Probability and Statistics: Nancy Lopes Garcia http://imstat.org/bjps
http://projecteuclid.org/bjps

Stochastic Systems: Peter W Glynn
http://www.i-journals.org/ssy/

IMS-Affiliated Journals

ALEA: Latin American Journal of Probability and Statistics: Servet Martinez
http://alea.impa.br/english

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

The XL-Files: Rejection Pursuit

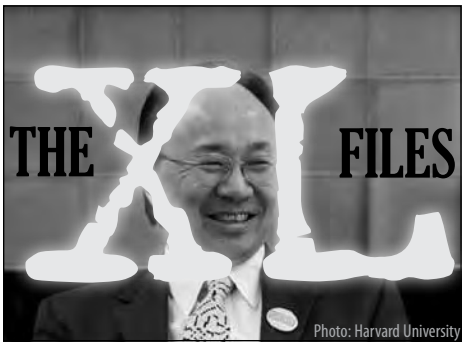


Photo: Harvard University

Contributing Editor Xiao-Li Meng writes:

As an assistant professor in late 1995, working on a unit-root AR(1) model, I came across a cute way of calculating moments with negative or fractional powers by integrating—not differentiating—a moment-generating function (MGF). Like many junior researchers, I was eager to turn my findings into a publication. By January of 1996, "A Note on Finite-Sample Evaluations of Moments of Ratios" was ready for colleagues' comments.

I love creative titles. But *that* was anything but creative! To make matters worse, my note started with "A Few Useful Lemmas," and I submitted it to *JASA*. Clearly, I had little clue about *JASA*'s scope or its readership.

The rejection letter arrived in mid-April, three weeks after my submission. The letter reflected well the care that Editor George Casella and an Associate Editor (AE) had taken towards an inexperienced and impatient junior researcher:

"We both feel that the paper is really a nice piece of work, and the real task will be finding it the right home. (The associate editor's letter to me was very complimentary of the paper.) My feeling is that your best shot might be *Statistical Science*. You probably will have to do a major revision, but it may be worth it. Good luck."

I couldn't possibly reject this rejection. They acted very promptly, and the AE's report complimented appropriately the scholarship of the paper, but reasoned effectively that I chose a wrong journal: "Many *JASA* readers will stop right at the first line: 'Some Useful Lemmas'."

Did I learn the lesson? Well, not really. I took the suggestion to try *Statistical Science* (*SS*) but did not bother to revise. In my defense, I did not formally submit but rather sent it with a letter of inquiry, expressing my willingness to revise should the topic be found suitable for *SS*. Inquiring about suitability can be effective, but in this case it sent the rather unsubtle message that I was interested more in *getting the paper published* than actually *improving the paper*, a distinction that unfortunately I was not the only (junior) researcher to fail to appreciate. Consequently, *SS*'s rejection letter came within a week, together with a "Desiderata for *Statistical Science,*" a rather unsubtle message in return—do some homework before submitting!

Did I learn the lesson this time? Well, read on. During the next few months I extended the results from ratios to logarithms, and I felt the paper was substantial enough to drop the "note" distinction and submit it to the *Annals of Statistics* (*AOS*). The title was equally plain, "On Analytic Evaluations of Moments of Ratios and Logarithms", and the paper still started with "A Few Useful Lemmas"—that may turn off *JASA* or *SS* readers, but surely it should turn on the *AOS* reviewers... shouldn't it?

AOS's rejection arrived in November of 1997, a year after my submission (perhaps a sign of serious interest by *AOS*'s reviewers?). The main reason for rejection was "although you have provided a very nicely written review and exposition, there is not enough that is new". Again, I couldn't declare this was an unjustified decision (for *AOS*). Whereas the logarithm results were new to the best of my knowledge, my initial "discovery" turned out to be known in the econometrics literature, though my article connected many dots and found some new applications.

My rejection pursuit therefore continued. I submitted it to *International Statistical Review* (*ISR*), in February of 1998, after a cosmetic revision. A "soft rejection" came in April 1998, suggesting reducing it to a "crisp note" focusing on the AR(1) application. So after all the trouble and time, I was back at square one!

The *ISR*'s reviewer report summarized well the reason for my ongoing rejection pursuit: "Although the author really does try hard, there is no clear purpose of this article." Indeed, without a clear purpose, more effort can only lead to more rejections! Finally the message sank in: stop publication hunting, but think hard about what message I should, and could, get across.

Deep thinking takes time, and in this case it took five years. The next version, "From Unit Root to Stein's Estimator to Fisher's *k* Statistics: If You Have a Moment, I Can Tell You More..." was completed in September 2003, and by then it had a clear aim to fill in a missing chapter in textbooks' treatments of MGFs. I was confident enough to re-submit it to *SS* (partly because George Casella had become its editor, so I was merely following his suggestion made seven years earlier!).

Taking my time paid off—the AE summarized the reviewers' reaction as follows: "They called it lively, interesting, entertaining and cute."

The article appeared in print in 2005, a decade after its conception.

Not every paper or project can afford such a long period of contemplation, nor should it. Perfectionism can turn to paralyzing procrastination. The five-year hiatus would be extreme for topics that are time-sensitive (and indeed I had plenty of

those during those five years), but in this case it was a therapeutic reinforcement to resist the seduction of increased quantity at the risk of a reduction in quality. Indeed, the lessons I have learned as an author, reviewer and editor over two decades have convinced me that both our profession and we ourselves are better served if we all spend a bit more time on improving a rejected paper than on getting it published somewhere.

The "Seven Sins" course handout reproduced below was designed with that goal in mind (and it was distributed during the "Starting Research Career Panel" at JSM 2013).

So please, take your time. Publishing a paper may be hard, but un-publishing one is impossible.

Seven Deadly Sins of Research Papers, Seven Virtues to Cultivate

From Stat366 *Research Cultivation & Culmination* at Harvard Statistics, taught by Joseph Blitzstein and Xiao-Li Meng

Sins Leading to Rejection	What's in the Referee's Mind	Virtues Leading to Acceptance
Insufficient Innovation: minor variations; routine exercise; tedious derivation of something not exciting; obvious generalizations	*"There's not much here…"* *"Well, this looks like a term project!"* *"I don't learn anything new or interesting."*	**TAKE TIME** to develop more elegant and substantial methods and theory; work out more applications; include more comparisons with existing methods
Narrow Scope: possibly good or even deep results presented in a very narrow or incomprehensible way; very limited readership	*"How many people would ever care about this?"* *"This is really too specialized to deserve pages in this journal."*	**TAKE TIME** to expand the scope; explain better how the work connects to a larger area; if not possible, consider submitting to a specialized journal
Premature Development: contains only half-baked ideas or immature methods; very loose organization; lack of a coherent theme	*"Well, there could be something interesting here, but the author really needs to do a lot more work to convince me!"*	**TAKE TIME** to think through what can be fully developed and what should be saved for a future paper; develop a lucid flow; write an exploratory overview paper
Sloppy Research: hand-waving/incorrect arguments presented as theoretical proof; misguided reasoning or simulation configurations	*"This person is not a very good researcher…"* *"What's new is not correct, and what's correct is not new!"*	**TAKE TIME** to double-check each derivation; think twice, deeper, and from different angles; look for independent ways to validate results; try out simple cases
… or to Tentative Rejection		
Inadequate Literature (Re)Search: missing major citations; insufficient comparison with existing methods; reinventing wheel	*"Clearly the author has not done his/her homework!"* *"How could the author not know this???"* *"What about* my *work?"*	**TAKE TIME** to do a thorough literature search, possibly outside of statistics; provide enough honest comparisons with major competitors; give due credit!
Unwarranted Claims: exaggerates the advantage or applicability of proposed methods; inappropriately downplays others' work	*"Gosh, this author is full of himself/herself!"* *"This is just too much, and too good to be true!"* *"This really p***** me off!"*	**TAKE TIME** to support each claim with theoretical and/or empirical evidence; separate facts from speculations or hope; "show rather than tell" the advantages; give credit
Sloppy Presentation: reads like research notes, abrupt with bad flow; lots of typos and/or grammatical errors; inconsistent notation, captions, and labeling; missing/incorrect references	*"Well, I'm not going to waste my time when the author does not spend time proofreading his/her own paper!"* *"Who is going to read such a badly written paper??"*	**TAKE TIME** to proofread at least five times; critically examine the flow and the order of presentation; ensure smooth transitions between segments; meticulously check for correctness and consistency; find a native writer to proofread/comment

Stochastic Processes and their Applications

János Engländer reports: The 36th Conference on Stochastic Processes and Their Applications was held on the beautiful campus of the University of Colorado, Boulder, from July 29 to August 2, 2013. There were 250 participants. The international scientific committee was chaired by Steve Lalley (Chicago), and the local organizers were Anne Dougherty, Vanja Dukic, János Engländer, Sergei Kuznetsov, Manuel Lladser and Brian Rider (chair).

At the beginning of the conference David Aldous announced that the 2013 Line and Michel Loève International Prize in Probability was awarded to Sourav Chatterjee of the Courant Institute, New York (see "Members' News" on page 2).

Named lectures were given by Gérard Ben Arous (Courant, New York University), who gave the Lévy Lecture; Itai Benjamini (Weizmann Institute of Science), who was the Inaugural Schramm Lecturer; Ken Golden (University of Utah), the Bernoulli Society Open Lecture; Neil O'Connell (University of Warwick) the Doob Lecture; Hirofumi Osada (Kyushu University) the Itô Prize Lecture; and Bálint Virág (University of Toronto), who was an IMS Medallion Lecturer. The other plenary speakers were: Zhen-Qing Chen (University of Washington); Ron Doney (University of Manchester); Hugo Duminil-Copin (Université de Genève); Tadahisa Funaki (University of Tokyo); Niels Jacob (Swansea University); Vadim Kaimanovich (University of Ottawa); Jeremy Quastel (University of Toronto); Kavita Ramanan (Brown University); Qi-Man Shao (Chinese University of Hong Kong); Amandine Véber (École Polytechnique); and Ofer Zeitouni (University of Minnesota & Weizmann Institute of Science). Pablo Ferrari unfortunately had to cancel his plenary address.

The inaugural Schramm lecture, by I. Benjamini, was in memory of the outstanding Israeli-American mathematician, Oded Schramm, known for the invention of the Schramm–Loewner evolution, who lost his life in a hiking accident in his forties. The Itô Prize Lecture was delivered by the recent winner of the prize, H. Osada. The Bernoulli Society Open Lecture, by K. Golden, was a "public" lecture, aimed at a broader audience; it addressed environmental as well as mathematical problems.

A large number of invited and contributed sessions complemented the plenary talks, and a successful "Early Researcher Panel Discussion" took place on the Tuesday.

According to feedback from the participants, the scientific program was very well received, and those who participated either in the organized Wednesday hike in the Rockies or in one of the "more privately organized" ones, were fascinated by the natural beauties of the conference venue. The conference dinner took place at Hotel Boulderado, a landmark hotel in Boulder.

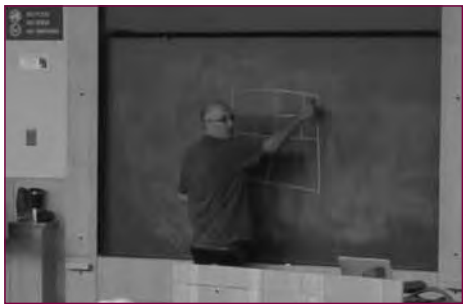


Photo: Joseph Migler

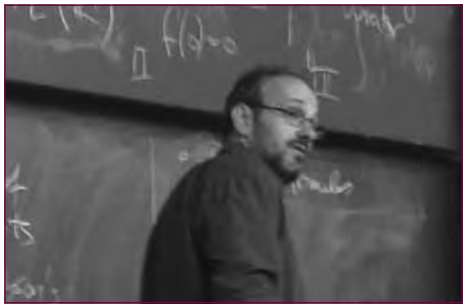


Photo: János Engländer

Above: Itai Benjamini delivered the Inaugural Schramm Lecture. Below: Medallion Lecturer Bálint Virág

The meeting was sponsored by IMS, the Bernoulli Society, International Society for Bayesian Analysis, Elsevier, Illinois Journal of Mathematics, National Science Foundation, National Security Agency, US Army Research Office, Department of the US Navy, Microsoft Research, and furthermore by the University of Colorado as well as its Departments of Mathematics and Applied Mathematics. All support received from the above agencies is gratefully acknowledged by the organizers.

Photo: Adriana Ocejo

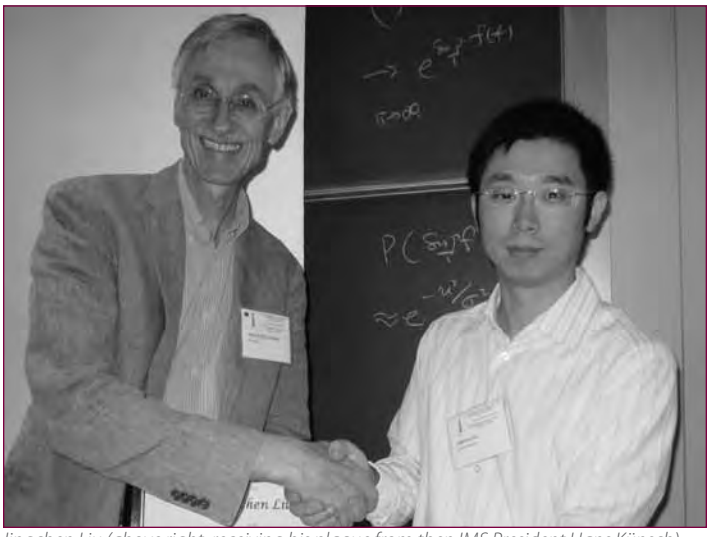
New Researchers Conference

Johanna G. Nešlehová and Aarti Singh report on the 15th IMS New Researchers Conference, jointly sponsored by the IMS and the SSC:

The 15th edition of the IMS New Researchers Conference took place at the Centre de recherches mathématiques (CRM) in Montréal, from August 1 to August 3, 2013. Because of its Canadian location, this year's meeting was co-sponsored by the Statistical Society of Canada. In total, 48 young researchers participated in the conference—20 women and 28 men—from the United States, Canada, France, Switzerland, and Japan.

The first two days of the meeting were tightly packed with talks and posters by the new researchers, and four invited lectures. After a cordial welcome by Hans Künsch and Christian Genest (ISM & CRM), Terry Speed opened the meeting with a thought-provoking address entitled "Mathematical Statistics: How long can and should you stay in it?" The lively discussion that followed got us all warmed up for a packed program of short talks on mathematical statistics, biostatistics, high-dimensional issues, spatio-temporal modeling, survey sampling, and genetics. The short talks were alternated with three invited lectures: on Thursday afternoon, Aurore Delaigle explored classification using censored functional data; on Friday morning, Jeff Rosenthal introduced us to the puzzles of MCMC; Steve Fienberg discussed the intricacies of causes of effects in the afternoon. Both Thursday and Friday were crowned by creative five-minute spotlight talks by poster presenters, followed by poster sessions. On Friday night, we could all finally enjoy a rich dinner and admire the magnificent view from the rooftop restaurant "Le Cercle" of HEC Montréal.

Saturday started with the Tweedie Award Invited Lecture on rare-event analysis for nonlinear functionals of Gaussian random fields, given by this year's winner Jingchen Liu. Aurore Delaigle and Steve Fienberg then offered advice on publishing, while Terry Speed and Hans Künsch shared their experiences with the mentoring of graduate students. After lunch, Hans Künsch explained why we need scholarly societies like the IMS. Jeff Rosenthal and Larry Wasserman then offered tips on how to face the challenges in teaching probability and statistics. The meeting ended with a longer panel on funding, led by Dave Stephens and various representatives from funding agencies: Nandini Kannan (NSF), Madeleine Bastien (NSERC), Joe McCloskey (NSA), Michelle Dunn (NIH), and Pierre des Lierres (Mitacs).



Jingchen Liu (above right, receiving his plaque from then IMS President Hans Künsch) delivered this year's Tweedie New Researcher Lecture on rare-event analysis for nonlinear functionals of Gaussian random fields

The meeting was sponsored by the National Science Foundation, National Institutes of Health, Centre de recherches mathématiques, the Institut des sciences mathématiques, and the Statistical Society of Canada. We also obtained generous assistance in all administrative matters from the Centre de recherches mathématiques.

More details about the meeting, as well as photographs, can be found at http://www.math.mcgill.ca/nrc2013/.

The 15th IMS New Researchers Conference in Montréal featured two sessions of creative five-minute spotlight talks by poster presenters, which were followed by poster sessions

Obituary: Maurice Priestley

1933–2013

Maurice Bertram Priestley

Maurice Bertram Priestley, Professor emeritus of the University of Manchester, UK, was an outstanding, influential and highly respected figure in the field of time series analysis. His book on *Spectral Analysis and Time Series*, first published in 1982 and reprinted several times, has become a standard reference on the subject. In the preface of the book, Maurice Priestley stated that, for the most part, he "followed the style of the *applied* mathematician, but there are certain basic results (such as the spectral representation theorem) which are crucial for a proper understanding of the subject, and by their nature, require a careful and precise presentation". In his book one can see his subtle use of real analysis and generalized functions, subjects of which he was very fond, in deriving the results. At the same time, one can see his skill in relating the results to applied problems arising in fields such as physics, engineering and economics. Besides being an outstanding research worker, he was well known to be an excellent teacher. He was one time associate editor of the *Journal of the Royal Statistical Society Series B* (*JRSS B*) and from its foundation in 1980 until the end of 2012 he was editor-in-chief of the *Journal of Time Series Analysis* (*JTSA*), a leading journal in the field. He was elected as a member of the International Statistical Institute, and also a Fellow of the IMS.

Maurice Priestley had a life-long loyalty to Manchester, the city of his birth on 15th March 1933. He attended the 500-year-old renowned Manchester Grammar School and went on to Jesus College, Cambridge, where he was a wrangler in mathematics. At Cambridge he stayed on to take the Diploma in Mathematical Statistics in the Statistical Laboratory where his interests were influenced by Dennis Lindley and Henry Daniels among many others. From 1955 to 1956 he was Scientific Officer at the Royal Aircraft Establishment, gaining practical experience of the relatively new field of spectral analysis and working for a short time with Gwilym Jenkins, who was a junior fellow there, and who would also go on to make his reputation in this area. They published a joint paper in *JRSS B* in 1957 and Maurice decided to study for a PhD. On the advice of George Barnard he returned to Manchester to work under the guidance of Maurice Bartlett and at the same time took up an assistant lectureship at the University of Manchester. He carried on his work on spectral analysis that he started with Gwilym Jenkins and published two very influential papers on spectral estimation (*Technometrics*, 1962) and the role and choice of bandwidth in the estimation of spectral density function (*Applied Statistics*, 1965), a topic which received a great deal of attention in the context of probability density estimation and nonparametric regression. His reputation was firmly established with a further two papers in *JRSS B* based on his PhD topic on inference for mixed spectra—the detection of frequencies in the presence of coloured noise. He published in 1965 a seminal paper (a read paper to the Royal Statistical Society) on evolutionary spectra and non-stationary processes. This paper stimulated further research in this area by others and led to the development of statistical tests for non-stationarity (Priestley and Subba Rao, *JRSS B*, 1969), to development of time varying parameter linear ARMA models and to the definition of the weighted likelihood function as a tool for the estimation of time dependent parameters (Subba Rao, *JRSS B*, 1970). More recently, Dahlhaus (*Annals of Statistics*, 1977) and his colleagues extended these ideas further for the analysis of locally stationary processes satisfying ARCH models, a topic which is now receiving considerable attention.

During the 1970s, Priestley's department became an exciting centre for time series research with the appointment, among others, of Tong and Subba Rao who rapidly established their own reputations in non-linear time series modelling. One can describe the 1970s as a golden decade for rapid developments in nonlinear and non-stationary processes, many of these emanating from the Manchester School under the leadership of Maurice Priestley (Bilinear Models of Subba Rao, *JRSS B* 1981, Threshold Models of Tong and Lim, *JRSS B* 1980, Amplitude Dependent AR models of Haggan and Ozaki, *Biometrika* 1981, State Dependent Models of Priestley, *JTSA* 1980). During the same period, Clive Granger and his colleagues at Nottingham were publishing papers in similar and related areas. Together, Maurice Priestley and Clive Granger formed the Manchester–Nottingham Time Series group, which held frequent meetings to discuss new developments and stimulated further research in these areas. These meetings continued until Clive Granger moved in 1974 to the University of California, San Diego. Priestley had been visiting professor at both Princeton and Stanford Universities in the USA in the early '60s and through the many contacts he fostered and his personal standing he attracted to his department a succession of visitors of international repute

in time series research, including H. Akaike, T. W. Anderson, E. J. Hannan, E. A. Parzen, M Rosenblatt, Tohru Ozaki and G. Wahba.

Maurice Priestley was appointed to full Professorship in 1970 and served as Head of the department of Mathematics at the University of Manchester Institute of Science and Technology (UMIST) for several periods, in total over 12 years. He figured prominently in the UMIST administration, and served with distinction on many committees. He was instrumental in the formation of the joint Manchester–Sheffield School of Probability and Statistics, being appointed Honorary Professor at the University of Sheffield. In 1999, following his retirement from UMIST, he was appointed Emeritus Professor in the University of Manchester.

Maurice was a Hi-Fi enthusiast and keen amateur radio operator (related to signal processing interests and not unconnected with time series?). He was more interested in the technical side of Hi-Fi equipment (for example the frequency response functions of the sound systems such as speakers and amplifiers rather than actual sound itself). Similarly his interest in golf, where he was more interested in flight dynamics of the golf ball and optimum position to hold the golf club for a specific shot. He was a dedicated supporter of Manchester United football (soccer) club and any discussion related to the club, its manager, or the game could become "interesting". He also had clear and well thought-out views on his own speciality but in his leadership of his department and editorship of the *Journal of Time Series Analysis* was moderate and of a generous leaning. He earned widespread respect, both personal and professional, from academic colleagues.

He married Nancy Nelson in 1959 and they have two children, Michael and Ruth, and four grand children. He died on 15th June 2013 following a long illness.

Tata Subba Rao, University of Manchester, and Granville Tunnicliffe-Wilson, Lancaster University

Obituary: Wenbo Li

1963–2013

Wenbo Li

Wenbo V. Li, professor of mathematical sciences at the University of Delaware, died suddenly of heart failure on January 26, 2013, near his home in Newark, Delaware. He was 49 years old.

Wenbo Li was born on October 27, 1963 in Harbin, China. After obtaining his Bachelor's degree in applied mathematics from Jilin University in Changchun, China, he came to the United States in 1988 and studied probability theory at the University of Wisconsin–Madison, under the supervision of James Kuelbs. Wenbo Li obtained his PhD in mathematics in 1992 and accepted a position at the University of Delaware as an assistant professor, becoming an associate professor in 1996 and a full professor in 2002. At the time of his death, he was also an adjunct professor in Delaware's Department of Electrical and Computer Engineering (since 2011) and Department of Applied Mathematics and Theoretical Physics (since 2007); a visiting professor at the Institute of Applied Mathematics of the Chinese Academy of Sciences (since 2005); and an adjunct professor at Harbin Institute of Technology, China (since 2006).

During his career as a research mathematician, Wenbo Li had also held visiting and other academic positions at various universities and research institutions, including Hong Kong University of Science and Technology, Peking University, the University of Pennsylvania, and Texas A&M University. He also served as an associate editor for several probability journals, including *Annals of Probability, Journal of Theoretical Probability, Journal of Mathematical Research and Exposition*, and *International Journal of Stochastic Processes*.

Wenbo Li was a probabilist who studied Gaussian measures and processes and published more than 70 research papers in these and related areas. He was a leading expert on small ball probability estimates: he contributed significantly to our understanding of the connection between the small ball probability and the entropy number. He worked for many years on the Gaussian correlation conjecture concerning a lower bound of the Gaussian measure of the intersection of two symmetric convex sets and was especially proud of a weak form of this conjecture that he proved. In 2006, he was elected a fellow of the IMS, "for his distinguished research in the theory of Gaussian processes and in using this theory to solve many important problems in diverse areas of probability."

Besides his own research, Wenbo Li was very helpful to young researchers from China by hosting them in his department and working jointly with them to start their careers as research mathematicians.

Wenbo Li was a nature lover and enjoyed hiking in mountains in China and on the Great Wall. All his friends and acquaintances felt the immensity of his energy and his eagerness for activities. Wenbo Li is survived by his wife Sunny and his son James.

Elton P. Hsu, Northwestern University

IMS Presidential Address: *Ars Conjectandi*—300 Years Later

Hans R. Künsch, ETH Zurich, completed his term as IMS President at the Joint Statistical Meetings in Montreal. He delivered this Presidential Address:

This year we are celebrating the anniversary of a book published 300 years ago, and on this occasion we have declared 2013 to be the International Year of Statistics. So the book gives us the opportunity to attract the attention of a larger public to statistics, but what relevance does it have for us statisticians and probabilists today?

Some might argue, very little: First, the title, *Ars Conjectandi*, the Art of Conjecturing, seems odd for a book about science—after all, science and arts have very different standards. And isn't the book's main result just the weak law of large numbers for the binomial distribution? We can prove that theorem in much greater generality in a few lines. Such arguments miss however important points. With his *Ars Conjectandi*, Jacob Bernoulli has laid an important foundation for our fields, and I want to use it tonight for the following purposes:

- to look back how our subject evolved,
- to appreciate how far we have come,
- to better understand the conceptual difficulties with probability and statistics applied to real world problems,
- to compare how science was done in the past with how it is done nowadays,
- to speculate about possible directions of our field.

I believe that such thoughts also fit well with the efforts of IMS to highlight the rich history of probability and statistics through our Scientific Legacy project, although that project will not go back so far in the past.

Let me first recall briefly the historical context of *Ars Conjectandi*: The scientific approach to randomness starts in 1654 with an unpublished correspondence between Pascal and Fermat, followed in 1657 by the first book, written by Huygens. They dealt with games of chance where probabilities could be determined by symmetry arguments, without relying on observations.

In 1662 Graunt published his *Observations made upon the bills of mortality,* and in 1694 Halley published *Life tables with seven uses.* These works compute relative frequencies of survival given a certain age, ignoring the underlying random variation.

Jacob Bernoulli's book *Ars Conjectandi* brought these two developments together by giving a mathematical argument for the convergence of relative frequencies to probabilities.

It laid therefore the foundation for the application of probability theory in situations outside of pure games of chance. More importantly, because Bernoulli gave specific bounds on the required number of observations for a desired precision, his results made it possible to quantify the uncertainty in the estimation of probabilities by relative frequencies. In a wider perspective, the book gives a justification for inductive reasoning: How can we derive mathematical models from data?

In a less known fourth part, Jacob Bernoulli also discusses principles for the application of probability theory in political, judicial, moral and business matters. He was convinced that a precise knowledge of probabilities was the basis for predictions, judgments and actions. He could not have imagined the many other applications of probability in the natural sciences—statistical physics, quantum mechanics and genetics were completely unknown in his time.

Before we look more closely at some of the conceptual issues, I would like briefly to describe the personality of the author and some circumstances regarding how the book was written.

The Bernoulli family was of Dutch origin and had moved to Basel in Switzerland for religious reasons. Jacob was the first of many scientists that this family produced over generations—all of them male; the first female member of the Bernoulli family that I could find on the web is Eva Bernoulli, 1873–1935, who was active in the temperance movement against alcohol. Presumably there were other female Bernoullis, and we can only wonder what they might have contributed to science if they had had the same access to education as the men.

Jacob originally studied theology at his father's wishes, but later became a mathematician. We can guess at his relationship with his father from the motto that he adopted: "In spite of my father I am among the stars." His younger brother Johann studied first medicine, but then also switched to mathematics. At the beginning he was taught by Jacob, and together they became leaders in the application of the new infinitesimal calculus, developed by Newton and Leibniz, to problems in geometry and physics. The two brothers solved a number of the most difficult problems of their time, but their cooperation turned quickly to a bitter rivalry which they fought out ruthlessly in their publications.

I will not go into the details of this clash, but just quote a few characterizations of the two brothers used by their biographers: "a bilious and melancholic temperament", "mostly quarrelsome and jealous", or "violent, abusive... and, when necessary, dishonest". We may ask if the way we deal with competition in research has changed in the past 300 years? Difficult characters are presumably unavoidable in science, but this is no excuse for personal attacks or polemics. We still have to continue our efforts to create an environment for science

which is characterized by fair play and mutual respect.

Jacob Bernoulli did the main work on his *Ars Conjectandi* from 1684 to 1689, but he did not publish it during his lifetime. He died in 1705, and the book appeared only 8 years later. The delay between Jacob's death and the publication of the book is mainly a consequence of the rivalry with his brother, but why did he not publish it during his lifetime? Historians believe that this is primarily because he was not satisfied with it: The bounds that he had are not tight and thus the required sample sizes for a precise estimation are huge. Moreover, he wanted to obtain some data to illustrate the arguments in his fourth part. Who would still do this nowadays and resist the pressure to publish quickly despite the feeling that he or she hasn't yet fully understood the problem?

Now let me discuss some of the conceptual difficulties related to *Ars Conjectandi*. The first one is the meaning of probability. Bernoulli's definition is still my preferred one: "Probability is a degree of certainty, and differs from certainty as a part from the whole". In the weak law of large numbers, uncertainty is again expressed as a probability. Thus for the interpretation of this law, we need the concept that "Events with low probability do not occur in a single occasion." Bernoulli formulated this idea using the term "morally impossible." But how small should the probability of an event be so that we are "morally certain" that it will not happen? This question is still with us today in the assessment and communication of risk. For instance, during my presidency I had to decide whether IMS should take a position about the conviction of scientists because of their statements before the earthquake in l'Aquila, Italy. The issue was not whether earthquakes can be predicted, but rather whether the scientists had weighed and communicated the evidence according to the most recent scientific knowledge. [*Hans recommended attending David Spiegelhalter's public lecture given a couple of days later, From Gambling to Global Catastrophe: Metaphors and Images for Communicating Numerical Risks*]

Left: a first edition of Jacob Bernoulli's posthumously published 1713 book Ars Conjectandi *sold for $20,000 at auction in 2008. It had been part of the Richard Green library, a private collection of hundreds of rare scientific and mathematical works. The Christies listing is at* http://www.christies.com/salelanding/index.aspx?intSaleID=21644

Let me next turn to the issue of inductive reasoning. Since Bernoulli there have been many attempts to understand far more complex systems than a simple urn by analyzing empirical data. In the era of Big Data, data are available almost without limitations, and expectations are high.

For instance the European Journal of Physics published last year a "Manifesto of computational social science" which contains statements like the following:

- *Information and communication technologies (ICT) produce a flood of data. These data represent traces of almost all kinds of activities of individuals enabling an entirely new scientific approach for social analysis.*
- *The analysis of huge data sets as obtained, say, from mobile phone calls, social networks, or commercial activities provides insight into phenomena and processes at the societal level.*
- *ICT can greatly enhance the possibility to uncover the laws of the society.*
- *The role of computational social science is a leading one in addressing the Big Problems of society, avoiding crises and threats to its stability and healthy development.*

Most of us will agree with the first two statements, but I have some doubts about the other two. Of course, picking out a few sentences from a 20-page article is not fair, but I believe the authors should discuss much more extensively questions such as: What are these laws of the society, what distinguishes them from the laws of physics, how can the idea of social laws coexist with concepts of individuality and free choices, and what are the limits of predictability and controllability of phenomena and processes at the societal level?

Neuroscience is another field where hope is high that by exploiting available data we can gain insight, discover fundamental laws and find cures for diseases like Alzheimer's and Parkinson's.

IMS Presidential Address *continued*

Continues from **page 11**

The website of the Blue Brain Project, which recently was approved as an EU flagship project, describes their approach as follows:

Neuroscience: *systematic, industrial-scale collection of experimental data, making it possible to describe all possible levels of structural and functional brain organization from the sub-cellular, through the cellular, to the micro-circuit, meso-circuit and macrocircuit levels;*

Neuroinformatics: *automated curation and databasing of data, use of Predictive Reverse Engineering to predict unknown data from a smaller sample of known data or from data describing other levels of brain organization;*

Mathematical abstraction: *definition of parameters, variables, equations, algorithms and constraints representing the structure and functionality of the brain at different levels of organization.*

Again, I am a bit skeptical that systematic collection of data will allow us almost automatically to infer the functioning of the brain and to predict what happens at a different levels.

Most of us are presumably also surprised that the document uses the term Predictive Reverse Engineering for tasks that we would consider as the central domain of statistics. Indeed, there is some concern that statistical knowledge is not fully recognized by other branches of science. I have heard this concern repeatedly in the 30+ years of my career, the first time being when fuzzy systems and neural networks were the hot topics in science. I am therefore not too worried about the future of our fields, but I do believe that we should encourage more people to reach out towards new disciplines, to develop and study new methods to address the needs of other disciplines. We should also have more appreciation for such interdisciplinary contributions and achievements.

In the remaining time, I don't want to discuss this point further, but I would like to describe to you briefly how the knowledge about another complex system—the weather and climate—has progressed in the past 150 years. This topic fits well into this year's celebration of "Mathematics of Planet Earth". My brief thoughts will also provide illustrations of the roles and interplays between data and theory, induction and deduction, stochastic and deterministic thinking.

I begin my story with Robert Fitzroy, who lived from 1805 till 1865. He is presumably unknown to you. He was the captain of HMS Beagle, the ship of Charles Darwin's famous voyage, which gave him lots of experience with weather and storms at sea. In 1854 he was appointed as chief of a new government agency to deal with the collection of weather data at sea, with the goal to make shipping less dangerous.

Incoming IMS President Bin Yu (left) takes the gavel from Hans Künsch, in the ceremony that marks the passing on of the presidency, which takes place at the IMS Annual Meeting, held this year at JSM in Montreal.

Fifteen land stations were established to use the new telegraph to transmit daily reports of weather at set times. Fitzroy developed charts to allow predictions to be made from these data. The first daily weather forecasts were published in *The Times* in 1860. In analogy to information and communication technology today, he used the newest technological means available in order to collect as much information as possible in order to gain insight and to solve a practical problem.

In 1863 he published *The Weather Book: A Manual of Practical Meteorology,* in which he attempted to uncover the laws governing the weather from his life-long experience . The success of his efforts was however limited. Francis Galton, who had also an interest in meteorology, wrote a devastating review of that book: "It is a fault in a book intended to lay the foundations of a new experimental science, that it should be mainly occupied with deductions from unproven hypotheses, instead of the careful establishment of axioms by rigorous induction from observed facts."

Despite Galton's assertion, big breakthroughs did not happen through a more sound induction from observed facts. They were achieved through an entirely different approach, initiated by the Norwegian Vilhelm Bjerknes (1862–1951). He was the first to realize that the fundamental laws of fluid dynamics and thermodynamics can be used to describe the large scale motions in the oceans and the atmosphere. In 1904, he declared that weather forecasting is possible in principle by solving deterministic partial differential equations. This was very much ahead of his time, and the first attempt to implement the idea ended in a failure. Computing power was simply not sufficient.

The situation changed with the advent of computers in the 1950s. Since then, deterministic differential equation models are at the core of all scientific weather prediction services. Moreover, basically the same models can be used also for climate studies, provided one takes into account the interactions of the atmosphere and the oceans with the biosphere and the cryosphere, the part of the earth where water is frozen.

However, as we all know, despite the huge progress in computing power, both weather and climate predictions are still uncertain. Atmospheric physicists are nowadays aware that they have to quantify this uncertainty. The uncertainty has two main reasons. Firstly, in view of the large range of space and time scales of processes in the atmosphere, the problem of how to deal with phenomena at smaller scales than the numerical resolution allows will not disappear. Secondly, in 1963 Lorenz discovered the chaotic nature of the weather: sensitivity to initial conditions limits its predictability, even if we could solve the equations exactly.

The solutions to these difficulties are parametrizations and data assimilation. Without going into technical details, parametrizations are methods to approximate the effect of unresolved scales as functions of resolved variables. Data assimilation is the sequential adjustment of the current computed state of the atmosphere, based on observations. In the next prediction step, this current state is used as new initial condition.

The relevant point for this talk is that for both parametrization and data assimilation, advanced methods are stochastic: Stochastic parametrization is a hot topic in the field, and ensemble methods which replace a single current state of the atmosphere by a sample in order to quantify the uncertainty of predictions are nowadays widespread. These approaches then turn weather prediction into a filtering problem in high dimensions and thus they offer interesting possibilities for our fields, in combination with physics and numerical mathematics.

So the first attempts with a purely inductive approach to understand weather and climate failed. They were replaced by a purely deductive and deterministic approach. However, also that approach reached its limit. Uncertainty is unavoidable and stochastic methods have re-entered the scene. What the story will look like for social sciences or neuroscience in the future, how progress will be made, and what the contributions of our fields will be, I don't know, but I would like to live long enough to see at least part of it. I encourage you to actively participate in these research efforts and I hope that IMS will contribute through its journals, meetings and the contacts it makes possible.

Travel grants for women mathematicians

Association for Women in Mathematics offers Travel Grants

The next deadline for the AWM/NSF Travel Grant is October 1, 2013. The Association for Women in Mathematics travel program supports these opportunities for women:

1. Travel grants in mathematics, for women mathematicians attending mathematics conferences.
2. Travel grants for women mathematicians attending a mathematics education research conference.
3. Travel grants for women mathematics education researchers attending a mathematics conference.

For complete eligibility and application details please visit http://www.awm-math.org/travelgrants.html. All applications are now submitted via an online system. The Travel Grant Program is sponsored by the National Science Foundation Division of Mathematical Sciences (DMS).

Please consider taking advantage of this opportunity yourself, if you are eligible, and encourage your eligible colleagues to apply.

Association for Women in Mathematics, 11240 Waples Mill Rd., Suite 200, Fairfax, VA 22030

Statistics2013 workshop webcast

Future of the Statistical Sciences Workshop

http://www.statistics2013.org/introduction-to-the-future-of-statistical-sciences-workshop/

One of the primary goals of the International Year of Statistics (Statistics2013) is to promote creativity and development in the sciences of probability and statistics. To that end, the six societies that founded Statistics2013—the American Statistical Association, International Biometric Society, Institute of Mathematical Statistics, International Statistical Institute (and the Bernoulli Society), and the Royal Statistical Society—are organizing a cross-discipline workshop that will examine the future of the statistical sciences, the capstone event of the International Year of Statistics.

Organizers are hard at work on preparations for the Future of the Statistical Sciences Workshop, that will be held November 11 and 12 in London, United Kingdom. The workshop will bring together statisticians from around the world, scientists who collaborate with statisticians, science writers and representatives from funding agencies.

The event will showcase the breadth and importance of statistics and highlight the extraordinary opportunities for statistical research in the coming decade. More specifically, the workshop will tell an important story to a number of audiences:

- to scientists in data rich fields: *statisticians are ready, willing and able to engage in deep, long-term collaborations;*
- to funding agencies: *statistics is the data science and can (and does) provide tools to enable progress across a huge range of human endeavors;*
- to statisticians: *don't let the opportunities for high-impact research pass you by;* and
- to future statisticians: *engage with a discipline with a huge future*.

Participation is by invitation only and will involve approximately 100 people. In addition to statisticians, the workshop will involve representatives from other areas of science and practice that involve problems of a statistical nature. The workshop will be organized around presentations and panels. A list of the invited speakers is at http://www.statistics2013.org/workshop-invited-participants/

However, *all will be able to view the workshop live as well as recordings of the proceedings via the web* thanks to Wiley Publishers.

After the workshop, with input from participants, the organizing committee will publish a summary document that will be widely distributed to the larger scientific community.

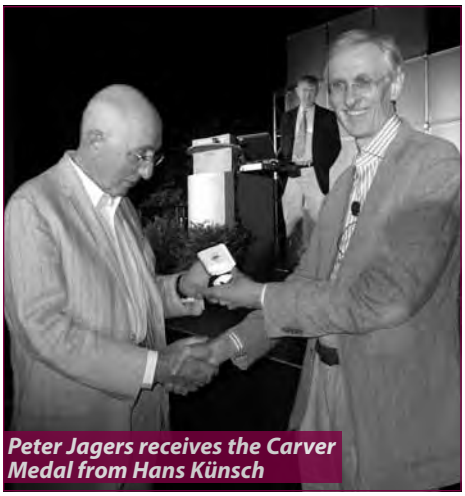
NSF support for the statistical sciences: latest

Earlier this year, we collected input from IMS members for a subcommittee to examine the current structure of support for the statistical sciences within the US National Science Foundation (NSF) and to provide recommendations for NSF to consider.

An update of the committee work is now available from the website for the NSF Advisory Committee for the Directorate of Mathematical and Physical Sciences. The report is from the StatsNSF Subcommittee, by Iain Johnstone and Fred Roberts, at http://www.nsf.gov/attachments/128225/public/MPSAC-July18-2013-StatSNSF-Johnstone-Roberts_Final.pdf)

These are draft recommendations at this point, pending feedback from the various advisory committees at NSF.

JSM2013 in pictures



Peter Jagers receives the Carver Medal from Hans Künsch

Eric Sampson/ASA

Statistical "superstar" Nate Silver gives the ASA President's Invited Address

Eric Sampson/ASA

Medallion lecturer Judea Pearl

Neal Madras (right) presents Medallion to Jeremy Quastel

MontréalCanada JSM2013

A pedestrianized street in Montreal

Bin Yu presents Medallion Lecturer Martin Wainwright

The Rietz Lecture was given by Larry Wasserman, here with Ed George

Piet Groeneboom was this year's Wald Lecturer, presented by David Siegmund

Medallion lecturer Lutz Dümbgen with Jon Wellner

IMS Editors' Luncheon

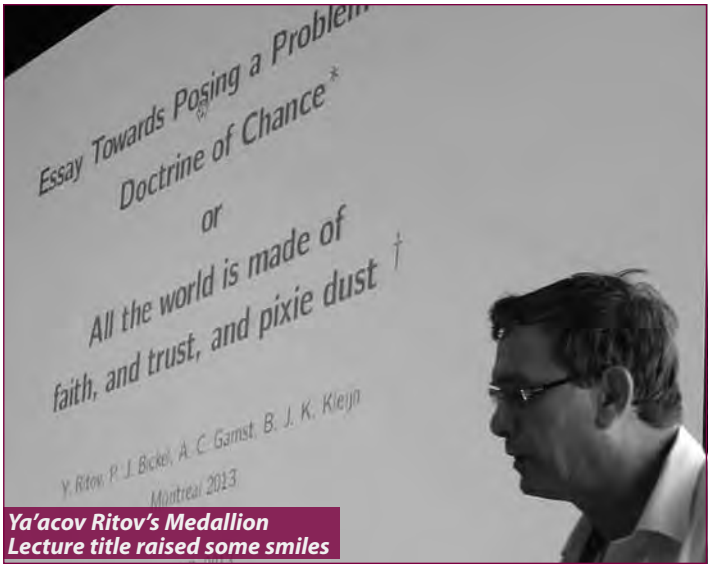
A rapt audience for David Spiegelhalter's public lecture

David Spiegelhalter

Peter Guttorp's Medallion Lecture

Medallion Lecturer Gady Kozma with Robert Wolpert

IMS members mingling after the Presidential Address



Ya'acov Ritov's Medallion Lecture title raised some smiles

Recent papers

Annals of Probability

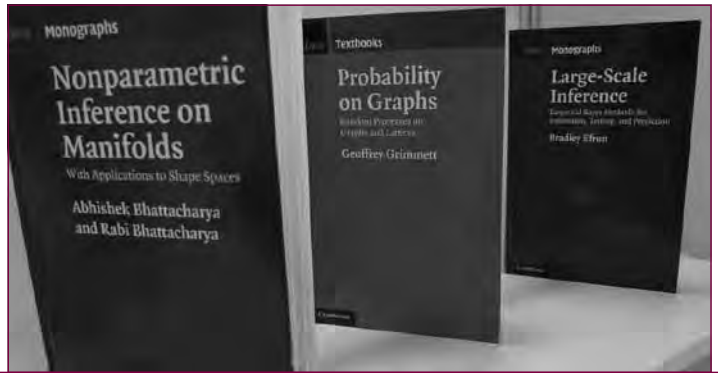
Volume 41, issue 4: July 2013

The *Annals of Probability* publishes research papers in modern probability theory, its relations to other areas of mathematics, and its applications in the physical and biological sciences. Emphasis is on importance, interest, and originality—formal novelty and correctness are not sufficient for publication. The *Annals* will also publish authoritative review papers and surveys of areas in vigorous development. The editor is Krzysztof Burdzy (from 2012–2014).

Access papers at http://projecteuclid.org/aop

IMS Textbooks

Cambridge University Press, in conjunction with the Institute of Mathematical Statistics, publishes *IMS Textbooks*. These are compact books that give introductory accounts of topics from statistics or probability of current interest, suitable for advanced courses at master's level, for doctoral students and for individual study. They are shorter than a fully developed textbook, and typically contain exercises. The Series Editors are Susan Holmes, Ben Hambly, Alan Agresti, D. R. Cox, and Xiao-Li Meng. See http://www.cambridge.org/ar/academic/subjects/statistics-probability/statistics-and-probability-general-interest/series/institute-mathematical-statistics-textbooks



Forthcoming Title in IMS Textbooks: PRE-ORDER NOW

Stochastic Networks by Frank Kelly, University of Cambridge, and Elena Yudovina, University of Michigan, Ann Arbor.

This textbook is derived from a graduate-level course taught at the University of Cambridge. Self-contained appendices contain discussion of relevant mathematical techniques, e.g. Lagrange multipliers.

Priced at $99 hardback, $36.99 paperback, but IMS members will receive 40% discount. Order details to follow.

Recent papers

Annals of Applied Probability

Volume 23, issue 4: August 2013

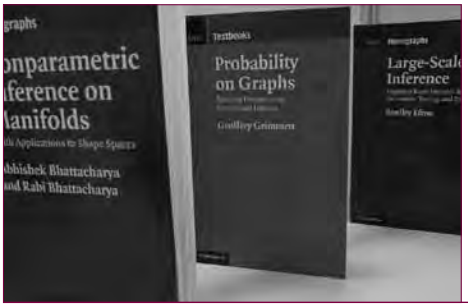
The *Annals of Applied Probability* aims to publish research of the highest quality reflecting the varied facets of contemporary Applied Probability. Primary emphasis is placed on importance and originality. The editor (2013 to 2015) is Timo Seppäläinen.

Access papers at http://projecteuclid.org/aoap

Forthcoming Title in *IMS Textbooks* series

PRE-ORDER NOW

Bayesian Filtering and Smoothing
Simo Särkkä, Aalto University, Finland
Priced at $99 hardback, $36.99 paperback; IMS members will receive 40% discount off these prices. Ordering details to follow.



Filtering and smoothing methods are used to produce an accurate estimate of the state of a time-varying system based on multiple observational inputs (data). Interest in these methods has exploded in recent years, with numerous applications emerging in fields such as navigation, aerospace engineering, telecommunications and medicine. This compact, informal introduction for graduate students and advanced undergraduates presents the current state-of-the-art filtering and smoothing methods in a unified Bayesian framework. Readers learn what nonlinear Kalman filters and particle filters are, how they are related, and their relative advantages and disadvantages. They also discover how state-of-the-art Bayesian parameter estimation methods can be combined with state-of-the-art filtering and smoothing algorithms. The book's practical and algorithmic approach assumes only modest mathematical prerequisites. Examples include MATLAB computations, and the numerous end-of-chapter exercises include computational assignments. MATLAB/GNU Octave source code is available for download at www.cambridge.org/sarkka, promoting hands-on work with the methods.

Terence's Stuff: Statistics and The War

Terry Speed reflects on the significant advances made in statistics during, and because of, the Second World War.

George Box's passing (see his obituary in the previous issue) brought to my mind something that has long interested me: the enormous boost that World War 2 (hereafter "the War") gave to Statistics in the United Kingdom, the USA, and elsewhere. This is one of the many paradoxes of war. We all agree that it is terrible and to be avoided to the greatest extent possible, yet it is hard not to concede that wars can bring scientific, technological, industrial, cultural, political, even economic benefits, over and above the purely strategic goals for which wars are fought. Not only was there extremely rapid development of some areas of statistics, especially industrial statistics, but also a large proportion of the leaders in our subject in the 40 years following the War met it for the first time during the War. It seems to me likely that a large proportion of these people, mostly men, would not have become statisticians but for the War. Indeed, Box titled his memoirs *An Accidental Statistician*, the "accident" being that he was assigned the role of statistician when he was a soldier in the War working on chemical defence.

I can remember being enormously impressed that such an elegant, powerful and eminently practical theory as Abraham Wald's sequential analysis was developed in wartime. This work fascinated me for several years, particularly the extensions using martingales of Wald's identities. W. Allen Wallis was the leader of the U.S. east coast Statistical Research Group (SRG) within which Wald worked. In a 1980 *JASA* paper which I found inspiring, he gave a history of this group and a first-hand account of the origins of Wald's work. About the four books resulting from the SRG's work, Wallis wrote, "All have proved influential—Wald's [*Sequential Analysis*, 1947] far more than the others, of course."

Many other wartime discoveries on both sides of the Atlantic have proved influential. In the UK Ministry of Supply's Scientific Research group SR17 led by George Barnard, one project concerned the operation of a weapon that contained 22 components (factors). Wanted was an experiment with a realistic number of combinations of levels of these factors that was optimum in a suitable sense for estimating the coefficients in a main-effects only model. The result was the path-breaking work of R.L. Plackett and J.P. Burman utilizing the mathematical research of R.E.A.C. Paley on Hadamard matrices. Today their work is seen as the beginning of screening designs, which have become widely used in industry, and are now vigorously promoted as multivariable testing (MVT). Interestingly, writing about this work more than 40 years afterwards, Plackett noted, "An experiment was carried out on the lines proposed, and the interpretation of the data was found to be somewhat difficult." Presumably the interactions between the 22 factors were not all negligible!

Alan Turing was not a statistician either before or after the War, but during it made several important contributions to our subject, in particular to the use of Bayes factors, log Bayes factors and sequential analysis. These have already become part of Bayesian folklore, and have recently been summarized along with much else in the book *The Theory That Would Not Die* by Sharon Bertsch McGrayne. Turing's cryptanalytic method known as *Banburismus* involved a Bayesian form of sequential analysis pre-dating Wald's, but details were not made public until decades after the War. It is not easy to get an accurate picture of who knew what in the period 1941–1945, but much relevant material is now available, particularly in books about Turing, articles by I. J. Good, and on the website alanturing.net.

Why should we care about these events 70 years ago? Reflecting on them, two key British participants, Barnard and Plackett wrote in 1985 "Peace finally returned, and the statistical scene in the United Kingdom had been completely transformed... No other method would have produced these changes in only six years...There was a large increase in the number of people who knew that statistics was an interesting subject, and they had been given an excellent training free of charge. ...Those in charge of higher education realized that an important field had in the past been largely neglected, and during the next twenty years the situation was remedied."

But it seems to me there is a stronger message. Commenting on Wallis' 1980 *JASA* paper, F.J. Anscombe, a member of SR17, wrote, "the heart of Allen Wallis's message is: 'What a wonderful thing a statistical research group can be.'" He went on to say, "I believe our subject would be in better shape if we could return to a former tradition—if it were the usual practice for the most exciting new PhD's to spend several years in a research team that had some definite mission, before, perhaps, re-entering the academic world."

Many statisticians worked in the War to improve the accuracy of anti-aircraft guns

IMS meetings around the world

IMS co-sponsored meeting

Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data Conference Honoring Professor Malay Ghosh NEW

May 29–31, 2014

University of Maryland, College Park, USA

w http://www.jpsm.umd.edu/ghosh

IMS Representative on Program Committees: Gauri S. Datta

Invited speakers: William R. Bell, Jim Berger, Nikolay Bliznyuk, Sudip Bose, Brad Carlin, Sanjay Chaudhuri, Ming-Hui Chen, Cynthia Clark, Bertrand Clarke, Mike Daniels, Anirban DasGupta, Dipak Dey, Hani Doss, Robert E. Fay, Ralph Folsom, D.A.S. Fraser, Edward George, Jayanta Ghosh, Peter Hall, Jim Hobert, Myron Katzoff, Kshitij Khare, Rod Little, Thomas Louis, Bani Mallick, Glen Meeden, Isabel Molina, Domingo Morales, Carl Morris, Rahul Mukherjee, Nitis Mukhopadhyay, Ralf Munnich, Danny Pfeffermann, J.N.K. Rao, Nancy Reid, Christian P. Robert, Judith Rousseau, Sanat Sarkar, Nathaniel Schenker, Joseph Sedransk, Pranab Sen, Thomas Severini, Bimal Sinha, Bikas Sinha, Cidambi Srinivasan, Muni S. Srivastava, Dongchu Sun, Changboo Wu, Zhihua Xu, James Zidek

IMS co-sponsored meeting

XIII CLAPEM: NEW ***Congreso Latino-americano de Probabilidad y Estadística Matemática***

September 22–26, 2014

Cartagena de Indias, Colombia

w http://www.clapem.unal.edu.co/

IMS Rep: David Aldous, Berkeley.

IMS sponsored meeting

JSM 2014 NEW

August 2–7, 2014: Boston, USA

w http://amstat.org/meetings/jsm/2014/

JSM Program Chair: Jean Opsomer, Colorado State University. IMS Invited Program chair: Nancy Reid, University of Toronto. IMS Contributed Program chair: Bertrand Clark, University of Nebraska–Lincoln

Key dates:

July 18–September 5, 2013: Online submission of Invited Session proposals

September 30, 2013: CE Course proposals due for consideration for the 2014 program

October 21–November 19, 2013: Online submission of Invited Session abstracts

January 17, 2014: Computer Technology Workshop (CTW) proposals due for consideration for the 2014 program

December 3, 2013–February 3, 2014: Online submission of abstracts, invited posters, introductory overview lectures, topic and regular contributed abstracts

March 31–April 17, 2014: Online Abstract Editing Open

May 1, 2014: Registration & Housing Open (early-bird registration deadline May 29; housing deadline July 2)

Joint Statistical Meetings dates, 2014–2018

IMS sponsored meeting

IMS Annual Meeting @ JSM 2015: August 8–13, 2015, Seattle, USA

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

IMS sponsored meeting

JSM 2016: July 30–August 4, 2016, Chicago, USA

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

IMS sponsored meeting

IMS Annual Meeting @ JSM 2017: July 29–August 3, 2017, Baltimore, USA

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

IMS sponsored meeting

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

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

At a glance: forthcoming IMS Annual Meeting and JSM dates

2014

IMS Annual Meeting: Sydney, Australia, **July 7–10, 2014**
ims-asc2014.com

JSM: Boston, MA, **August 2–7, 2014**

2015

IMS Annual Meeting @ JSM: Seattle, WA, **August 8–13, 2015**

2016

IMS Annual Meeting: Toronto, Canada, dates TBD

JSM: Chicago, IL, **July 30 – August 4, 2016**

2017

IMS Annual Meeting @ JSM: Baltimore, MD, **July 29 – August 3, 2017**

2018

IMS Annual Meeting: TBD

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

IMS-ASC 2014 meeting: Sydney, Australia

2014 IMS Annual Meeting & Australian Statistical Conference
July 7–10, 2014, Sydney, Australia
w http://www.ims-asc2014.com/

Registration and abstract submission open now

On behalf of the **Statistical Society of Australia** and the **Institute of Mathematical Statistics**, the organising committee invite you to register to attend the joint Australian Statistical Conference & IMS Annual Meeting, to be held 7–10 July, 2014, in Sydney, Australia. The venue for this meeting is the Australian Technology Park in Sydney.

Delegates from all areas of statistics will join with world class Australian and international statisticians and mathematicians to develop, network and share their knowledge and expertise. In 2014 the Statistical Society of Australia will hold its biannual ASC in conjunction with the IMS Annual Meeting. The conference will provide opportunities for presentations on a wide range of topics and recognizes the role that statistics plays in all aspects of modern life.

The conference objectives are to:

- attract world class statisticians to share their knowledge and expertise,
- inform delegates about new work and developments in statistics, probability and mathematical statistics,
- provide an opportunity for professionals from all of these areas to network, present and discuss ideas.


Iconic Sydney

Abstract submission: ASC–IMS 2014

You are invited to submit an abstract for consideration for a contributed oral or poster presentation, invited session or keynote presentation. Abstract submission is open.
www.ims-asc2014.com/program/

Abstract submission is open until October 30:
http://www.ims-asc2014.com/call-for-abstracts/

You are invited to submit an abstract for consideration as a contributed oral or poster presentation, invited session or keynote presentation at the ASC–IMS 2014 Conference. The deadline is 30 October, 2013.

As this conference is a joint meeting between the Statistical Society of Australia and the Institute of Mathematical Statistics, an extensive and wide-ranging program will be available. As befitting an event of this size, with approximately 12 Keynote presentations and multiple parallel streams, a large portion of the program is by invitation. However, a substantial part of the program is set aside for contributed presentations, both oral and poster. While there is no restriction on the topic or number of contributed presentations, the number of oral presentations is by nature limited.

Abstracts must be of a high scientific quality, contain original research, and must acknowledge all authors contributing to the research.

Themes

Themes for proposals include, but are not limited to, the following topics:
Bayesian Statistics; Bioinformatics; Biostatistics; Computational and Asymptotic Statistics; Causal inference; Dirichlet form theory; Econometrics; Experimental designs; Filtering theory; Finance and Physics; Financial Statistics; Functional data analysis; Graphical models and networks; Gaussian processes; High-dimensional statistics; Heavy tail phenomenon; Infinite dimensional analysis; Large-scale inferences; large deviations; Limit theory; Levy processes; Long range dependence; Malliavin calculus; Mathematical statistics; Markov processes; Measure-valued processes; Multivariate statistics; Nonparametric statistics; Non local operators; Official statistics methodologies; Particle systems; Percolation probability on trees and graphs; Probability; Random matrices; Random surfaces; Sample surveys methodology; SLE Stochastic Analysis; Spatial statistics; Stochastic differential equations; Stochastic optimization; Stochastic models in biology; Stochastic networks; Stochastic processes; Stochastic/statistical modelling; Statistical computing; Statistical learning; Robust statistics; Functional data analysis; Time series

For more information on how to submit your abstract, or about the program, please visit the website, www.ims-asc2014.com

More IMS meetings around the world

IMS co-sponsored meeting

Conference on Modeling High Frequency Data in Finance 5
October 24–26, 2013
Stevens Institute of Technology, Hoboken, New Jersey

w http://www.stevens.edu/hfconference

IMS Representative(s) on Program Committees: Ionut Florescu, Frederi Viens

IMS co-sponsored meeting

International Conference on
Recent Advances in Experimental Designs
December 12–16, 2013
Guangzhou, China

IMS Representative(s) on Program Committees: Jianqing Fan

w http://maths.gzhu.edu.cn/siced2013/

Topics of the conference include, but are not limited to: designs for non-linear models; factorial designs; mixture designs; optimal designs; response surface designs; uniform designs.

Conference registration and abstract submission deadline: 5 October 2013.

IMS co-sponsored meeting

37th Conference on Stochastic Processes and their Applications
July 28–August 1, 2014
Buenos Aires, Argentina

w http://mate.dm.uba.ar/~probab/spa2014/

The 37th Conference on Stochastic Processes and Applications (SPA) will take place in Buenos Aires during the week July 28 to August 1, 2014.

Plenary speakers are: Anton Bovier, Bonn; Ivan Corwin, MIT; Antonio Galves, São Paulo; Christophe Garban, Lyon; Milton Jara, Rio de Janeiro; Gady Kozma, Weizmann Institute; Eyal Lubetzky, Microsoft; Sylvie Méléard, Palaiseau; Felix Otto, Leipzig; Tomohiro Sasamoto, Chiba; Scott Sheffield, MIT; Fabio Toninelli, Lyon; and Balint Tóth, Budapest

Organized under the auspices of the Bernoulli Society for Mathematical Statistics and Probability and co-sponsored by the Institute of Mathematical Statistics.

IMS co-sponsored meeting

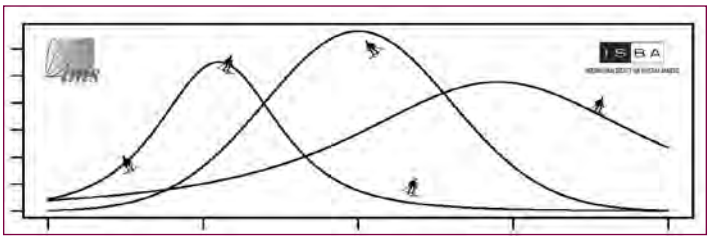
38th Conference on Stochastic Processes and their Applications
July 13–17, 2015
Oxford, United Kingdom

w TBC

IMS co-sponsored meeting

MCMSki IV
January 6–8, 2014
Chamonix Mont-Blanc, France

w http://www.pages.drexel.edu/~mwl25/mcmski/



The fourth MCMSki meeting will take place in Chamonix Mont-Blanc, France. It is jointly supported by the IMS and ISBA, as is the first meeting of the newly created BayesComp section of ISBA. Chairing the Scientific Committee are Gersende Fort (Telecom Paristech) and Dawn Woodard (Cornell University).

The conference will focus on all aspects of MCMC theory and methodology, including related fields like sequential Monte Carlo, approximate Bayesian computation, Hamiltonian Monte Carlo. In contrast with the earlier meetings, it will merge the satellite Adap'ski workshop into the main meeting by having parallel (invited and contributed) sessions on those different themes. There will be evening poster sessions open to all.

The three keynote speakers are Andrew Gelman, Chris Holmes, and Michele Parrinello. A round-table on MCMC softwares will also take place during MCMSki IV.

IMS co-sponsored meeting

Third IMS Asia Pacific Rim Meetings
June 30–July 3, 2014
Taipei, Taiwan

w http://www.ims-aprm2014.tw/

The third IMS Asia Pacific Rim Meetings will take place in Howard International House (http://intl-house.howard-hotels.com/), Taipei, Taiwan, during the period Monday, June 30–Thursday, July 3, 2014. This meeting series provides an excellent forum for scientific communications and collaborations for researchers in Asia and the Pacific Rim. It also promotes communications and collaborations between the researchers in this area and those from other parts of the world. The program covers a wide range of topics in statistics and probability, presenting recent developments and the state of the art in a variety of modern research topics and in applications. For more information, you may contact the program chairs: Byeong U. Park (bupark@stats.snu.ac.kr) and Feifang Hu (fh6e@virginia.edu).

IMS co-sponsored meeting

International Conference
***Ars Conjectandi* 1713–2013**
October 15–16, 2013, Basel, Switzerland
w http://www.statoo.ch/bernoulli13/

IMS Reps on the program committee are Hans Künsch and Lutz Dümbgen.

This conference will celebrate the 300th anniversary of the publication of Jacob Bernoulli's book "Ars Conjectandi" in 1713. It is organised by the Swiss Statistical Society (SSS) and co-sponsored by the Bernoulli Society for Mathematical Statistics and Probability, the IMS and the International Statistical Institute (ISI). The conference will consist of keynote presentations from:

David Aldous, Berkeley
Peter Bühlmann, Zurich
Louis Chen, Singapore
Hans Föllmer, Berlin
Tilmann Gneiting, Heidelberg
Hans-Ruedi Künsch, Zurich
Xiao-Li Meng, Cambridge
Fritz Nagel, Basel
Nancy Reid, Toronto
Stephen Stigler, Chicago
Edith Dudley Sylla, Raleigh
Grace Wahba, Madison

The conference will be combined with the **Swiss Statistics Meeting** to be held on October 16–18, 2013, in Basel, Switzerland, celebrating the 25th anniversary of the Swiss Statistical Society, the 15th anniversary of its section "Official Statistics" and the tenth anniversary of its sections "Education and Research" and "Business and Industry".

Further information, a tentative programme and registration are available at the website above.

In the name of the organising committee, we look forward to welcoming you to Basel in October 2013.

Dr. Diego Kuonen, CStat PStat CSci, Co-president of the organising committee, and President of the Swiss Statistical Society (SSS)

ENAR, 2014–2016

IMS sponsored meeting

2014 ENAR/IMS Spring Meeting
March 16–19, 2014
Baltimore, Maryland, USA
w http://www.enar.org/meetings.cfm

IMS sponsored meeting

2015 ENAR/IMS Spring Meeting
March 15–18, 2015
Miami, Florida, USA
w http://www.enar.org/meetings.cfm

IMS sponsored meeting

2016 ENAR/IMS Spring Meeting
March 6–9, 2016
Austin, Texas
w http://www.enar.org/meetings.cfm

IMS co-sponsored meeting

2013 ICSA International Conference
December 20–23, 2013
Hong Kong, China
w TBA

IMS Rep: Elizaveta Levina, Department of Statistics, University of Michigan

IMS co-sponsored meeting

INFORMS Applied Probability Society Conference 2015
July 5–8, 2015
Istanbul, Turkey
w TBC

IMS sponsored meeting

2014 WNAR/IMS Annual Meeting
June 15–18, 2014
Honolulu, Hawaii, USA
w http://www.wnar.org/

The 2014 WNAR/IMS meeting will be June 15-18, in Hawaii. It will be held at the Conference Center of the University of Hawaii at Manoa, in Honolulu, HI.

Waikiki Beach in Honolulu could be another reason to attend the 2014 WNAR/IMS meeting? Photo Cristo Vlahos/Wikimedia

Other meetings around the world

Rutgers "Statistics for Financial Risk Management" Conference NEW
November 7, 2013
Rutgers Busch Campus, Piscataway, NJ, USA
w http://fsrm.rutgers.edu/nov-7-conference-program

Rutgers University joins the 2013 International Year of Statistics celebrations by hosting this one day event focused on the statistical facets of risk management. The inauguration of the Rutgers Center of Excellence for Research in Financial Statistics and Risk Management, with a mission to foster joint research by practitioners and academics into risk management approaches that are robust in the face of inevitable limitations and constraints in model specification and estimation, will also take place.

The Financial Statistics & Risk Management Program (FSRM) at Rutgers University joins the 2013 International Year of Statistics celebrations by hosting this one-day event focused on the statistical facets of risk management. The inauguration of the Rutgers Center of Excellence for Research in Financial Statistics and Risk Management, with a mission to foster joint research by practitioners and academics into risk management approaches that are robust in the face of inevitable limitations and constraints in model specification and estimation, will also take place at the event. The conference features talks and a panel discussion by an international roster of globally distinguished experts, including Jin Duan (U. Singapore), Wolfgang Härdle (Humboldt Universität zu Berlin); James Hodson (Machine Learning and Statistical Inference, Bloomberg L.P.); Ruey Tsay (U. Chicago); Nassim Taleb (Author of *The Black Swan*), and Holger Rootzén (Chalmers U. of Technology).

Contact: Neville O'Reilly **t** 848-445-8000 **e** noreilly@stat.rutgers.edu

2013 PQG Conference: Emerging Quantitative Issues in Disease Epigenetics NEW
November 14–15, 2013
Harvard Medical School, Boston, Massachusetts, USA
w http://www.hsph.harvard.edu/2013-pqg-conference/

The conference will be entitled "Emerging Quantitative Issues in Disease Epigenetics" and will seek to examine the interplay between emerging technologies, its applications to diseases epigenetics studies, and interdisciplinary challenges of data analysis involved. We seek to engage scientists working in experimental, clinical, and computational epigenomics in a discussion centered on three important topics:

1. Chromatin regulation in diseases
2. Epigenetics of genetic variance in disease
3. DNA methylation, somatic mutations, and diseases

The conference schedule includes time for scientific presentations, as well as a poster session for submitted abstracts. Three abstracts will be selected for Stellar Abstract Awards, to be presented as 15-minute platform talks. Each of these speakers will receive an award of up to $500 for travel assistance or other conference expenses. See the website for abstract submission (deadline to submit is Friday, October 25, 2013).

Workshop on Dimension Reduction and High Dimensional Inference NEW
January 17–18, 2014
Gainesville, Florida, USA
w http://www.stat.ufl.edu/symposium/2014/index.html
Contact: Zhihua (Sophia) Su **e** zhihuasu@stat.ufl.edu

The workshop will focus on recent developments in Dimension Reduction and High Dimensional Inference. A major purpose of the workshop is to discuss many recent significant developments and to identify important problems and new research directions. All sessions are plenary.

Invited Speakers:

Andreas Buja, University of Pennsylvania; Florentina Bunea, Cornell University; Lisha Chen, Yale University; Francesca Chiaromonte, Pennsylvania State University; Dennis Cook, University of Minnesota; Bing Li, Pennsylvania State University; Lexin Li, North Carolina State University; Yanyuan Ma, Texas A&M University; Adam Rothman, University of Minnesota; Ming Yuan, University of Wisconsin-Madison; Harrison Huibin Zhou, Yale University; Ji Zhu, University of Michigan

Please visit http://www.stat.ufl.edu/symposium/2014/index.html for complete workshop details. For additional information please contact Zhihua (Sophia) Su: zhihuasu@stat.ufl.edu.

Building Statistical Methodology and Theory 2014 NEW
In honor of Jeff Wu's 65th birthday
July 7–9, 2014
Huquan Hotel, Mile, Yunnan, China

w http://www.stat.purdue.edu/~sunz/Jeff_2014/index.html

The conference is held on the occasion of the 65th birthday of Dr. C.F. Jeff Wu, one of the most celebrated statisticians of our time. Dr. Wu is currently a professor in the School of Industrial and Systems Engineering at Georgia Institute of Technology, Atlanta, USA, and he holds the Coca-Cola Chair in Engineering Statistics. Dr. Wu's honors include membership on the National Academy of Engineering (2004), Member (Academician) of Academia Sinica (2000), COPSS (Committee of Presidents of Statistical Societies) Presidents Award in 1987, and Einstein Chair Professor at Chinese Academy of Sciences in 2011. He is a fellow of the Institute for Operation Research and the Management Sciences, of the American Society for Quality, of the Institute of Mathematical Statistics, and of the American Statistical Association.


C.F. Jeff Wu

Dr. Wu has won numerous awards, including the Deming Lecture Award by American Statistical Associations in 2012, the Fisher Lecture Award by Committee of Presidents of Statistical Societies in 2011, the Shewhart Medal by American Society of Quality in 2008, the Pan Wenyuan Technology Award (Taiwan) in 2008, the Jerome Sacks Award for Outstanding Cross-Disciplinary Research, National Institute of Statistical Sciences in 2005, and many others. Dr. Wu has made fundamental contributions to the methodological and theoretical developments in a variety of statistical and application areas such as nonlinear least squares methods, optimal, sequential, and factorial designs, statistical computing, re-sampling methods, robust parameter design, design and analysis of computer experiments, and many others.

The conference intends to bring top researchers together to interact and present their new research findings in areas that have been influenced by Dr. Wu's previous work and related topics. It is also an opportunity for top researchers to share and discuss their ideas and visions of emerging problems in their fields.

The conference will be held at Huquan Hotel, Mile, Yunna Province, P. R. China. Huquan Hotel is 85 miles southeast of Kunming, and is like a shining pearl inlaid in a 3,000 acres ecological park with mountains, hot springs, refreshing air and lush vegetation. The hotel provides comprehensive facilities for accommodations, conference, dining, and amusement.

Probability and Statistics in High and Infinite Dimensions NEW
Conference on the occasion of Evarist Giné's 70th Birthday
June 23–25, 2014
Center for Mathematical Sciences, University of Cambridge, UK

w http://www.statslab.cam.ac.uk/~nickl/Site/2014.html

This conference takes place on the occasion of Evarist Giné's 70th birthday. It will attempt to reflect recent developments in the many areas that Evarist has transformed and worked on in his distinguished career: from probability in Banach spaces, empirical, chaos- and U-process theory to mathematical and nonparametric statistics.


Evarist Giné

Confirmed Speakers: Radek Adamczak (Warsaw), Lucien Birgé (Paris), Yannick Baraud (Nice), Rudy Beran (UC Davis), Richard Dudley (M.I.T.), Lutz Dümbgen (Bern), Friedrich Götze (Bielefeld), Ramon van Handel (Princeton), Gerard Kerkyacharian (Paris), Rafal Latala (Warsaw), Michel Ledoux (Toulouse), Gabor Lugosi (Barcelona), Michael Marcus (CUNY), Pascal Massart (Paris), David Mason (Delaware), Shahar Mendelson (ANU and Technion), Krzysztof Oleszkiewicz (Warsaw), Markus Reiß (Berlin), Patricia Reynaud-Bouret (Nice), Sasha Tsybakov (Paris), Aad van der Vaart (Leiden), Cun-Hui Zhang (Rutgers), Joel Zinn (Texas A&M).
Contact: Richard Nickl
e r.nickl@statslab.cam.ac.uk

Employment Opportunities around the world

Canada: Waterloo, ON

University of Waterloo, Department of Statistics and Actuarial Science

Statistics or Biostatistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14399181

Canada: Waterloo, ON

University of Waterloo, Department of Statistics and Actuarial Science

Actuarial Science

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14398989

Canada: Waterloo, ON

University of Waterloo, Department of Statistics and Actuarial Science

Chair of Statistics and Actuarial Science

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14171939

Germany: Mannheim

University of Mannheim, Heidelberg University, RTG

Postdoc

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14272253

Kazakhstan: Astana

Nazarbayev University

Open rank positions in Mathematics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14360483

Singapore Nanyang Technological University, Singapore

Faculty Positions in Analytics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14493244

United Kingdom: Bristol

University of Bristol

Research Assistant/Associate in Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14242156

United States: Pittsburgh, PA

Carnegie Mellon University

Tenure-track and visiting positions

Applications are invited for possible tenure-track and visiting positions. Carnegie Mellon offers a collegial faculty environment, emphasizing a combination of disciplinary and cross-disciplinary research and teaching. All areas of statistics are welcome, and joint appointments with other units in the Pittsburgh area are possible. We especially encourage women and minorities to apply.

Details at http://www.stat.cmu.edu (email: hiring@stat.cmu.edu).

Application screening begins immediately and continues until positions closed. Send CV, research papers, relevant transcripts and three letters of recommendation to: *Chair, Faculty Search Committee, Department of Statistics, Carnegie Mellon University, Pittsburgh, PA 15213, USA.*

AA/EOE.

United States: Pittsburgh, PA

Carnegie Mellon University

Teaching-track position

Applications are invited for possible teaching-track position. Carnegie Mellon offers a collegial faculty environment, combining disciplinary and cross-disciplinary research with thriving undergraduate and graduate programs. This position emphasizes teaching, program administration, and curriculum development. All areas of statistics are welcome, and curriculum development, and joint appointments with other units at Carnegie Mellon are possible.

See http://www.stat.cmu.edu (email: hiring@stat.cmu.edu).

Send CV, relevant transcripts, teaching statement, and three recommendation letters to: *Faculty Search Committee, Statistics, Carnegie Mellon University, Pittsburgh, PA 15213, USA.*

Application screening begins immediately, continues until positions closed. Women and minorities are encouraged to apply. AA/EOE.

2014-15 Postdoctoral Fellowships at SAMSI

Postdoctoral fellowships are available (up to 6) at the Statistical and Applied Mathematical Sciences Institute (SAMSI) for either of the two SAMSI Research Programs for 2014-15: **Beyond Bioinformatics: Statistical and Mathematical Challenges**, and **Mathematical and Statistical Ecology**. Appointments will begin in August 2014 and will typically be for two years, although they can also be arranged for one year. Appointments are made jointly between SAMSI and one of its partner universities, where teaching is a possibility. Extremely competitive salaries, travel stipend, and health insurance will be offered.

2014-15 Program on Beyond Bioinformatics: Statistical and Mathematical Challenges (Bioinformatics)
The aim of the SAMSI Bioinformatics program is to bring together researchers to address challenges arising in processing and analysis of genomic and related data to answer biological questions. The program will address topics including the statistical pre-processing of emerging high throughput data, methods for assessing dependence in high-dimensional data (in particular, multivariate discrete counts), integration of multi-omics data, modeling dynamics of mixtures (eg. populations of cells, variants, metagenomics) and other topics arising in big data and machine learning methods for 'omics data.

For additional information on this program, please see: http://www.samsi.info/bioinformatics

2014-15 Program on Mathematical and Statistical Ecology
The aim of the SAMSI program on Mathematical and Statistical Ecology is to bring together researchers in statistics, applied mathematics and the ecological sciences to develop improved modeling tools. SAMSI seeks postdocs with a primary expertise in at least one of these three areas and an interest in developing interdisciplinary research. Specific areas of expertise include multi-scale modeling, the analysis of dynamical properties such as tipping points, statistical analysis of large spatio-temporal datasets and statistical methods for large multivariate datasets. Applications areas include forest degradation, the influence of climate change on ecological systems, inverse problems for the global carbon cycle, and landscape genomics. There will be opportunities for collaboration with national organizations such as the US Geological Survey, the National Center for Atmospheric Research and the National Ecological Observatory Network.

For additional information on this program, please see: http:// www.samsi.info/ECOL

Application to SAMSI
In your cover letter, please specify which of the two SAMSI research programs you are applying to (Bioinformatics/Ecology) and why you would be a good fit for SAMSI and that program.

Criteria for selection for SAMSI Postdoctoral Fellows include demonstrated research ability in statistical and/or applied mathematical sciences, interest and (to a lesser degree) experience in the SAMSI program areas and vision, together with strength in computation and in verbal and written communication. The deadline for full consideration is December 15, 2013, although later applications will be considered as resources permit.

SAMSI is an AA/equal opportunity employer All qualified applicants are encouraged to apply, especially women and members of minority groups.

To apply, go to mathjobs.org, SAMSIPD2014 Job #3759

Employment Opportunities around the world

United States: Riverside, CA

University of California, Riverside, Department of Statistics

Assistant/Associate Professor in Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14275359

United States: Hayward, CA

California State University

East Bay Department of Statistics & Biostatistics

Tenure-Track Faculty Position

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14303286

United States: New Haven, CT

Yale School of Public Health

Tenure-Track Faculty Positions in Biostatistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14491201

United States: Iowa City, IA

University of Iowa, Department of Biostatistics

Tenure-track position

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14158228

United States: Moscow, ID

University of Idaho

Assistant Professor of Mathematical Biology

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14421411

United States: Ann Arbor, MI

University of Michigan

Assistant Professor of Statistics

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=14070106

United States: Houston, TX

Rogue Wave Software, Inc.

Statistician

http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=13444846

THE UNIVERSITY OF IOWA

College of Public Health

The Department of Biostatistics at The University of Iowa College of Public Health invites applications at the rank of tenure-track Assistant Professor. This position requires a PhD or equivalent in biostatistics, statistics, or a related area, as well as evidence of excellent written and oral communication skills. There is a possibility that more than one candidate will be appointed.

The successful candidate(s) will demonstrate, or have the potential to develop, an independent research agenda in methodology, excellence in teaching and the ability to collaborate successfully on biomedical and public health research. Individuals with expertise in any area are welcome to apply, but those with experience in statistical genomics, clinical trials, Bayesian methods, or a combination of these areas are of particular interest.

See http://jobs.uiowa.edu/ (requisition #62969) for the complete position description and electronic application information. Applicants should arrange to have three letters of reference emailed to biostatistics@uiowa.edu.

The University of Iowa is an Equal Employment Opportunity & Affirmative Action employer. Women and minorities are strongly encouraged to apply.

International Calendar of Statistical Events

IMS meetings are highlighted in maroon **with the** ims **logo, and new or updated entries have the** NEW **or** UPDATED **symbol. t means telephone, f fax, e email and w website. Please submit your meeting details and any corrections to Elyse Gustafson at** erg@imstat.org

September 2013

September 8–12: SAMSI, Research Triangle Park, NC. **Opening Workshop for Low-Dimensional Structure, High Dimensional Systems w** http://www.samsi.info/workshop/2013-14-ldhd-opening-workshop-september-8-12-2013

September 10–14: Belarusian State University, Minsk, Belarus. **10th International Conference on "Computer Data Analysis and Modeling: Theoretical and Applied Stochastics" w** http://www.cdam.bsu.by

September 12: Milan, Italy. **BarCamp S.Co.2013 w** http://mox.polimi.it/barcamp_sco2013/

September 17–19: Potsdam, Germany. **Structural Inference in Statistics w** www.mathematik.hu-berlin.de/~for1735/potsdam/

September 19–21: Istanbul, Turkey. **y-BIS 2013**, Joint Meeting of Young Business and Industrial Statisticians **w** http://ybis13.msgsu.edu.tr/

September 21 (*please note date change*): Harvard University Science Center, Cambridge, MA. **New England Symposium on Statistics in Sports w** http://www.nessis.org/

September 26–27: Boulder, CO, USA. **Third International Workshop on Climate Informatics w** https://www2.image.ucar.edu/event/ci2013

October 2013

October 2–3: ICERM, San Antonio, TX. **Modern Math Workshop w** http://www.samsi.info/workshop/modern-math-workshop-2013-october-2-3-2013

October 9–11: SAMSI, Research Triangle Park, NC. **Dynamics of Seismicity, Earthquake and Patterns in Fault Networks w** http://www.samsi.info/workshop/2013-dynamics-seismicity-earthquake-clustering-and-patterns-fault-networks-october-9-11-201

October 10–12: Mt Pleasant, MI, USA. **International Conference on Statistical Distributions and Applications w** http://people.cst.cmich.edu/lee1c/icosda/

ims October 15–16: Basel, Switzerland. **International Conference *Ars Conjectandi* 1713–2013 w** http://www.statoo.ch/bernoulli13/

October 21–23: SAMSI, Research Triangle Park, NC. **CMSS: Social Network Data: Collection and Analysis w** http://www.samsi.info/workshop/2013-14-cmss-social-network-data-collection-and-analysis-oct-21-23-2013

October 21–23: Dera Ghazi Khan, Pakistan. **11th International Conference on Statistical Sciences:** *Social Accountability, Global Economics and Human Resource Development with Special Reference to Pakistan* **w** http://www.analyticbridge.com/group/conferences/forum/topics/11th-international-conference-on-statistical-sciences

October 21–23: Knoxville, TN. NIMBioS Investigative Workshop: **Multidisciplinary Approaches to Analyzing Animal Vocal Communication Sequences w** http://www.nimbios.org/workshops/WS_vocal

October 24–25: SAMSI, Research Triangle Park, NC. **Education and Outreach: Undergraduate Workshop w** http://www.samsi.info/workshop/undergraduate-workshop-october-24-25-2013

October 28 – November 9: Tunis, Tunisia. **Lévy Processes and Self-similarity 2013 w** http://levy-autosimilarity-tunis2013.math.cnrs.fr/index.html

November 2013

NEW November 7: Rutgers Busch Campus, Piscataway, NJ, USA. **Rutgers "Statistics for Financial Risk Management" Conference w** http://fsrm.rutgers.edu/nov-7-conference-program

November 9–16: Cochin, Kerala, India. **International Conference & Workshop on Fractals and Wavelets w** www.icfwrajagiri.in

International Calendar *continued*

November 2013 *continued*

NEW November 14–15: Harvard Medical School, Boston, MA, USA. **2013 PQG Conference: Emerging Quantitative Issues in Disease Epigenetics** w http://www.hsph.harvard.edu/2013-pqg-conference/

November 14–15: NIMBioS at the University of Tennessee, Knoxville. **NIMBioS Investigative Workshop: Insect Pest Resistance Evolution** w http://www.nimbios.org/workshops/WS_pestresist

December 2013

December 1–5: Mandurah, Western Australia. **Biometrics by the Canals: The International Biometric Society's Australasian Region Conference 2013** w http://www.biometricsociety.org.au/conferences/Mandurah2013/

December 2–4: Oviedo, Spain. **EUROFUSE2013 on Imprecision and Uncertainty in Preference Modeling and Decision Making** w http://eurofuse2013.uniovi.es/

December 8–13: Atlantic City, NJ, USA. **69th Annual Deming Conference on Applied Statistics** w http://www.demingconference.com/

IMS December 12–16: Guangzhou, China. **International Conference on Recent Advances in Experimental Designs** w http://maths.gzhu.edu.cn/siced2013/

December 15–19: Durham, NC, USA. **OBayes 2013** w http://bayesian.org/sections/OB/obayes-2013-celebrating-250-years-bayes

December 16–18: Pune, Maharashtra, India. **International Conference: Role of Statistics in the Advancement of Science and Technology** w http://stats.unipune.ac.in/Conf13.html

IMS December 20–23: Hong Kong, China. **2013 ICSA International Conference** w TBC

December 28–31: CRRao AIMSCS, India. **Statistics 2013: Socio-Economic Challenges and Sustainable Solutions** w www.statistics2013-conference.org.in

January 2014

IMS January 6–8: Chamonix, France. **MCMSki IV** w http://www.pages.drexel.edu/~mwl25/mcmski/

NEW January 17–18: Gainesville, Florida, USA. **Workshop on Dimension Reduction and High Dimensional Inference** w http://www.stat.ufl.edu/symposium/2014/index.html

February 2014

February 3–7: SAMSI, Research Triangle Park, NC. **LDHD: Topological Data Analysis** w http://www.samsi.info/workshop/2013-14-ldhd-topological-data-analysis-february-3-7-2014

February 20–21: SAMSI, Research Triangle Park, NC. **Education and Outreach: Undergraduate Workshop w** http://www.samsi.info/workshop/undergraduate-workshop-february-20-21-2014

February 24–26: SAMSI, Research Triangle Park, NC. **LDHD: Statistical Inference in Sparse High-Dimensional Models: Theoretical and Computational Challenges w** http://www.samsi.info/workshop/2013-14-ldhd-statistical-inference-sparse-high-dimensional-models-theoretical-and-computati

March 2014

March 4–7: Ulm, Germany. **11th German Probability and Statistics Days w** http://www.gpsd-ulm2014.de/

March 6–8: Ulm, Germany. **Conference on Modelling, Analysis and Simulation in Econamathematics w** http://graduiertenkolleg.gpsd-ulm2014.de/

March 7–9: Dallas, Texas, USA. **Ordered Data Analysis, Models and Health Research Methods:** An International Conference in Honor of H.N. Nagaraja for his 60th Birthday **w** http://faculty.smu.edu/ngh/hnnconf.html

March 16–19: Baltimore, Maryland. **2014 ENAR/IMS Spring Meeting. w** http://www.enar.org/meetings.cfm

March 17–19: Knoxville, Tennessee, USA. **NIMBioS Investigative Workshop: Vectored Plant Viruses w** http://www.nimbios.org/workshops/WS_plantviruses

May 2014

NEW May 29–31: University of Maryland, College Park, USA. **Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data: Conference Honoring Professor Malay Ghosh w** http://www.jpsm.umd.edu/ghosh

June 2014

June 2–6: Będlewo, Poland. **11th International Conference on Ordered Statistical Data w** http://bcc.impan.pl/14OrderStat/

June 15–18: Honolulu, Hawaii. **2014 WNAR/IMS Annual Meeting w** TBC

NEW June 23–25: Center for Mathematical Sciences, University of Cambridge, UK. **Probability and Statistics in High and Infinite Dimensions: Conference on the occasion of Evarist Giné's 70th Birthday w** http://www.statslab.cam.ac.uk/~nickl/Site/2014.html

June 30–July 3: Taipei, Taiwan. **Third IMS Asia Pacific Rim Meetings w** http://www.ims-aprm2014.tw/

June 30–July 3: Athens, Greece. **8th Annual International Conference on Mathematics Education & Statistics Education w** http://www.atiner.gr/edumatsta.htm

July 2014

July 1–4: Montpellier, France. **International Statistical Ecology Conference w** http://isec2014.sciencesconf.org/

NEW July 7–9: Huquan Hotel, Mile, Yunnan, China. **Building Statistical Methodology and Theory 2014: In honor of Jeff Wu's 65th birthday w** http://www.stat.purdue.edu/~sunz/Jeff_2014/index.html

July 7–10: Sydney, Australia. **2014 IMS Annual Meeting with Australian Statistical Conference w** http://www.asc-ims2014.com/

2014 IMS Meeting in conjunction with the Australian Statistical Conference: registration and abstract submission are open now!

July 28 – August 1: Buenos Aires, Argentina. **37th Conference on Stochastic Processes and Applications w** http://mate.dm.uba.ar/~probab/spa2014/

Continues on **page 34**

International Calendar *continued*

August 2014

ims August 2–7: Boston, MA. **JSM2014 and ASA's 175th Anniversary. w** http://amstat.org/meetings/jsm/

August 13–21: Seoul, Korea. **International Congress of Mathematicians: ICM2014 w** http://www.icm2014.org

August 25–27: Kermanshah, Iran. **12th Iranian Statistical Conference w** http://isc12.razi.ac.ir/index.php?slc_lang=en&sid=1

September 2014

NEW ims September 22–26: Cartagena de Indias, Colombia **XIII CLAPEM: Congreso Latino-americano de Probabilidad y Estadística Matemática w** http://www.clapem.unal.edu.co/

June 2015

ims June (exact dates TBC): Location TBC. 2015 **WNAR/IMS Annual Meeting w** TBC

July 2015

ims July 5–8: Istanbul, Turkey. **INFORMS Applied Probability Society Conference 2015 w** TBC

ims July 13–17: Oxford, UK. **38th Conference on Stochastic Processes and Applications w** TBC

August 2015

ims August 8–13: Seattle, WA. **IMS Annual Meeting at JSM2015. w** http://amstat.org/meetings/jsm/

March 2016

ims March 6–9: Austin, Texas. **2016 ENAR/IMS Spring Meeting w** http://www.enar.org/meetings.cfm

July 2016

ims July 30 – August 4: Chicago, USA. **JSM 2016 w** http://amstat.org/meetings/jsm/

July/August 2016

NEW ims Dates TBC: Toronto, ON, Canada. **IMS Annual Meeting at 9th World Congress in Probability and Statistics w** TBC

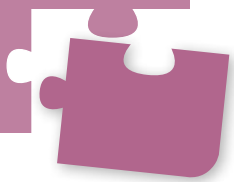
July 2017

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

July 2018

ims July 28 – August 2: Vancouver, Canada. **JSM 2018 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 online too, at www.imstat.org/meetings



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

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

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September 15, then **November 1**

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