



September 2012

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World Congress reviewed

Elvan Ceyhan and Mine Çağlar were co-chairs of the Local Organizing Committee for the Eighth World Congress in Probability and Statistics, location of the 2012 IMS Annual Meeting. They reflect on the successes of the meeting:

This summer, the eighth World Congress in Probability and Statistics was held in Istanbul, Turkey, from July 9 to 14, 2012 at the Grand Cevahir Hotel and Convention Center. The congress was jointly organized by IMS and the Bernoulli Society. Scheduled every four years, this meeting is a major worldwide event in statistics and probability, covering all its branches, including theoretical, methodological, applied and computational statistics and probability, and stochastic processes. It featured the latest scientific developments in these fields.

The congress aimed to have a high impact at an international level and present application and research activities in these subjects. To this end, in addition to mainstream research on probability and statistics, applied topics such as information technology, finance, risk management, genetics and medicine, and quality control were included; sessions were organized with the participation of experts in these fields. Recent developments were presented: the state of the art in a variety of modern research topics, with in-depth sessions on the applications of these disciplines to other sciences, industrial innovation and society. The program featured 14 special plenary lectures by leading specialists, including the Fields medalist Stas Smirnov. In addition, there were 40 invited sessions highlighting topics of current research interests with 120 talks, as well as 91 contributed sessions with about 455 talks and 61 posters. There were more than 750 participants from 61 different countries.

Student participation was high—211 students (28% of the participants) were able to attend, thanks to generous travel awards especially made available for young researchers by several institutions including IMS, and also due to the Pre-World Congress Meeting of Young Researchers in Probability and Statistics 2012, which attracted 50 participants. There were 275 congress participants from developing countries. The host city Istanbul, a multi-cultural cosmopolitan city more than 8,000 years old, was easy to access due to its geographical location which bridges Europe and Asia.

The sponsors of the congress included Koç University, The Scientific and Technological Research Council of Turkey, Central Bank of Turkey, US National Science Foundation, European Mathematical Society, ISI, Elsevier, Illinois Journal of Mathematics and the International Mathematical Union. In the opening ceremony, the head of the Turkish Statistical Institute, Birol Aydemir, gave a speech as well. With many high level scientific sessions and social attractions, this has been a memorable event for the participants.

For further information, downloadable abstract book, and photo gallery see the congress website at <http://www.worldcong2012.org>

Photos and news from the World Congress, and from JSM, are inside...

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IMS Members' News

ICSA Distinguished Service Award

Howell Tong received a Distinguished Achievement award at the 2012 Joint Statistical Meeting in San Diego on 1 August 2012 from the International Chinese Statistical Association. This award honors his achievements and leadership in statistical research, education and statistical applications. Howell is an IMS Fellow and former Council member. He was a Council member and Chair of the European Section, Bernoulli Society, 1999–2001. He is known for his pioneering and authoritative work in nonlinear time series analysis and chaos, for which he was honored with a National Natural Science Prize (Class 2) from the People's Republic of China in 2000 and a Guy Medal in Silver from the UK Royal Statistical Society in 2007. He was elected a Foreign Member of the Norwegian Academy of Science and Letters in 2000. Howell retired from his chair of statistics at the London School of Economics in 2009 and is now an emeritus professor of statistics. He was the 2009 and 2010 Saw Swee Hock Professor of the National University of Singapore, and is a Distinguished Visiting Professor of the University of Hong Kong.



Howell Tong

PJSOR Volume honors Mir Masoom Ali

The *Pakistan Journal of Statistics and Operation Research (PJSOR)* recently published a Special Volume in honor of Dr. Mir Masoom Ali, George and Frances Ball Distinguished Professor of Statistics Emeritus at Ball State University, on the occasion of his 75th birthday. Among the 78 authors and coauthors who contributed 31 articles to the volume are D.A.S. Fraser, Douglas Wolfe, Ali Hadi, Joseph McKean, Bimal Sinha, Bikas Sinha, Sam Hedayat, Ibrahim Ahmad, Kung-Sik Chan, Malay Ghosh, Gauss Cordeiro, Glen Meeden, S. Jammalamadaka, Ayanendranath Basu, Leandro Pardo, and three others with whom Dr. Ali has jointly published most: Jungsoo Woo, Manisha Pal and Dale Umbach. The papers in the Special Volume can be viewed at <http://www.pjsor.com/index.php/pjsor/issue/view/48/showToc>.

Dr. Ali obtained BSc and MSc degrees from Dhaka University in 1956 and 1957, respectively. He obtained his second Master's degree in 1967 and PhD degree in 1969, both in Mathematical Statistics at the University of Toronto. His major PhD thesis adviser was D.A.S. Fraser, with Ralph Wormleighton as co-supervisor and James Templeton as his external thesis examiner—all three of whom had, by coincidence, obtained their PhDs under Tukey at Princeton. Dr. Ali joined Ball State University in 1969 and founded the graduate program in statistics. He is a Fellow of several scholarly organizations including ASA, RSS and the Bangladesh Academy of Sciences, and is named Sagamore of the Wabash, the highest award of the state of Indiana, for his contribution to higher education in the State of Indiana, to Ball State University and to the statistics profession.

Academia Sinica elect Academicians

IMS Fellows Jianqing Fan (Princeton) and Ker-Chau Li (Academia Sinica and UCLA) were elected to Academicians of Academia Sinica (AS) during the 2012 July convocation of AS in Taipei. The AS Academician is considered to be a major honor and recognition for scholars of Chinese origin.

They have joined the ranks of other Chinese statisticians, including Yuan-Shih Chow, George C. Tiao, Tze-Leung Lai, Chien-Fu Jeff Wu, Kung-Yee Liang, Ruey S. Tsay, and Wing H. Wong.

IMS Members' News

Honorary Doctorate for Ray Carroll

Raymond J. Carroll, distinguished professor of Statistics at Texas A&M University, received an honorary doctorate degree from the Université catholique de Louvain (UCL) in Belgium for his fundamental contributions and international leadership in many areas of statistical research and practice. Professor Ingrid Van Keilegom of UCL gave the laudatio. The degree was presented May 31 in Louvain-la-Neuve by the Faculty of Sciences and the Institute of Multidisciplinary Research for Modeling and Quantitative Analysis (IMMAQ) as part of a joint 20-year-anniversary celebration for the UCL Institute of Statistics, Biostatistics and Actuarial Science (ISBA). Carroll was honored for distinction in his scientific career, and he delivered a presentation related to his research.

NISS Awards

NISS, the National Institute of Statistical Sciences, presented the 2012 **Jerome Sacks Award for Cross-Disciplinary Research**

to **William Q. Meeker**, Iowa State University, at JSM. The award, in honor of founding director of NISS Jerry Sacks, was established in 2000. Meeker received the award for “*outstanding sustained research that develops, implements, documents, communicates, and teaches statistics for the solution of relevant engineering and cross-disciplinary problems, especially in reliability, accelerated testing, reliability software, degradation data analysis, and statistical methods for nondestructive evaluation*”. **James Landwehr** (Avaya Laboratories) and **Linda Young** (University of Florida) are this year's recipients of the **NISS Distinguished Service Awards**. Jim Landwehr was recognized for his many years of serving on the NISS Board, which include chairing it for three years and serving this past year as chair of the Board's Affiliates Committee. Linda Young was acknowledged for her service on the Board and leadership role in the NISS-NASS research program, which ran from 2009 to 2011.



Left–right: Susan Ellenberg (chair of NISS Board), Jim Landwehr (Distinguished Service Award), William Meeker (Sacks Award recipient), Linda Young (Distinguished Service Award), Jerry Sacks (founding director), Alan Karr (director)

Norwood Award for Nancy Flournoy

Dr. **Nancy Flournoy**, University of Missouri College of Arts and Sciences, is the recipient of the 11th Annual **Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences**. She will accept the award at the University of Alabama at Birmingham. Nancy's research interests in theoretical and applied statistics include: clinical trials, adaptive sequential designs, transplantation biology and infectious disease, specifically cytomegalovirus at a key point prior to the AIDS epidemic. See <http://www.soph.uab.edu/ssg/norwoodaward/eleventhaward>

ASA's First Annual Karl E. Peace Award

Dr. **Fritz Scheuren** and Dr. **Marvin Zelen** have been selected as the winners of the newly created Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society. See <http://www.amstat.org/about/pressreleases/2012KarlEPeaceAwardRecipients.pdf>

🔗 = access published papers online

IMS Journals and Publications

Annals of Statistics: Peter Bühlmann and Tony Cai
<http://imstat.org/aos>
 🔗 <http://projecteuclid.org/aos>

Annals of Applied Statistics: Bradley Efron
<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: Andrew Barbour
<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: David Ruppert
<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: Richard Levine
<http://www.amstat.org/publications/jcgs>
 🔗 log into members' area at imstat.org

Statistics Surveys: Lutz Dümbgen
<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: Herbie Lee
 🔗 <http://ba.stat.cmu.edu>

Bernoulli: Richard Davis
<http://www.bernoulli-society.org/>
 🔗 <http://projecteuclid.org/bj>

Brazilian Journal of Probability and Statistics: Silvia Ferrari <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: Claudio Landim
 🔗 <http://alea.impa.br/english>

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

World Congress in photos



Wald lecturer Steffen Lauritzen, with Peter Bühlmann



Ahmet Çakanoglu

Le Cam lecturer Pascal Massart

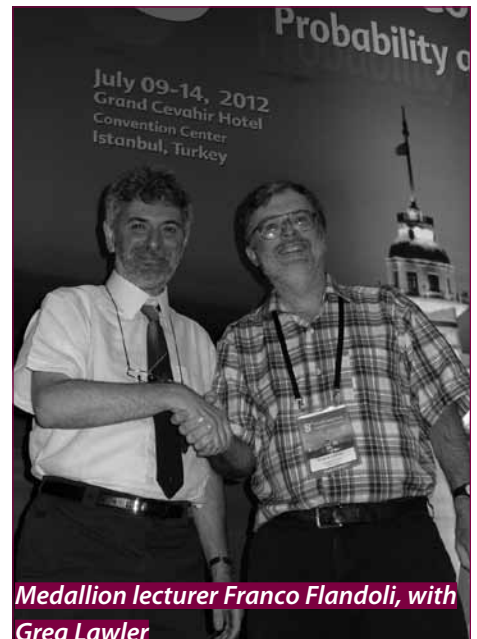


Thanks to those behind the 8th World Congress: Semih Sezer, Ed Waymire, Wilfrid Kendall, Arnoldo Frigessi, Hans Künsch, Mine Çağlar, Süleyman Özekici, Elvan Ceyhan, Victor Perez Abreu



Ahmet Çakanoglu

Congress participants on the evening Bosphorous boat trip

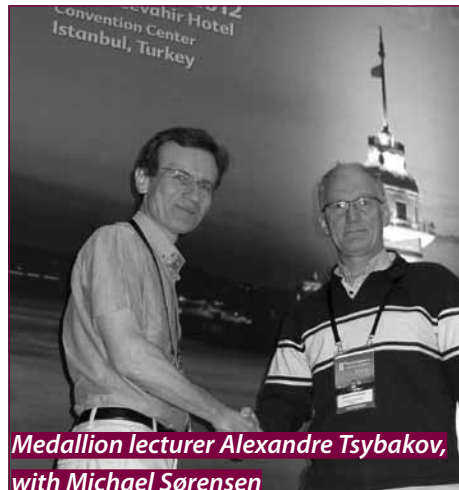


Medallion lecturer Franco Flandoli, with Greg Lawler

Ahmet Çakanoglu



Medallion lecturer Sourav Chatterjee, with Victor Perez Abreu



Medallion lecturer Alexandre Tsybakov, with Michael Sørensen



Medallion lecturer Nicole El Karoui, with Nakahiro Yoshida



At the Welcome Reception

Ahmet Çakanoglu



Mosque ceiling

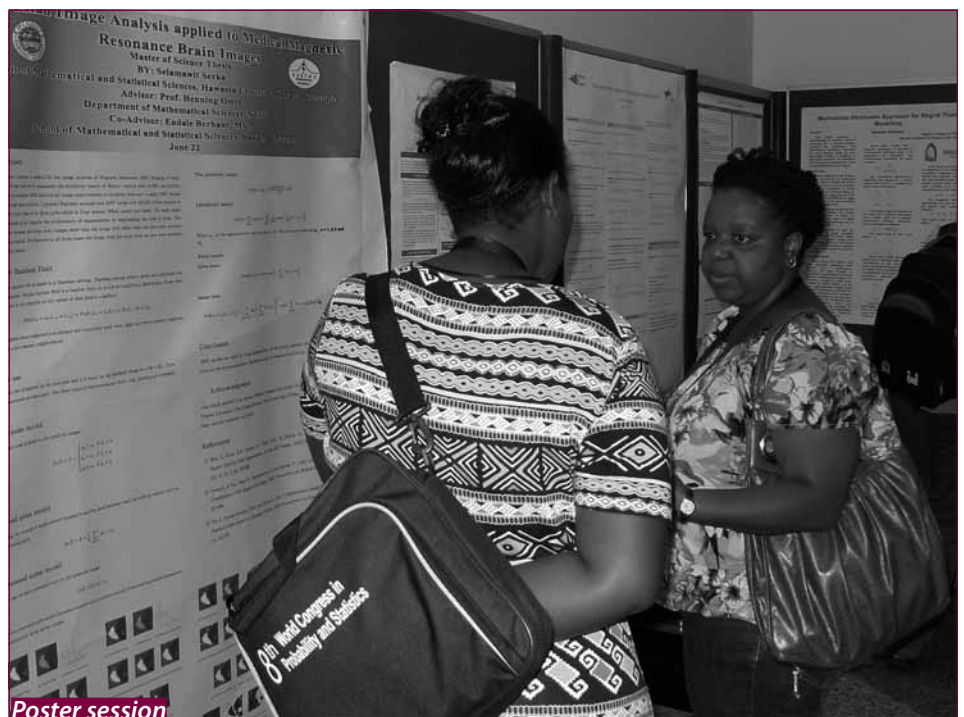


Whirling Dervishes

Ahmet Çakanoglu



Medallion lecturer Van Vu



Poster session

IMS Presidential Address:

Raising the Profile of Probability and Statistics

One of the final acts of the outgoing IMS President is to deliver the Address at the IMS annual meeting. Ruth Williams, who is now Past-President, delivered this at the World Congress in July.

The IMS mission is “to foster the development and dissemination of the theory and applications of statistics and probability”. Next year, 2013, we have a unique opportunity to heighten the profile of probability and statistics, and I would like to ask all of you for your help in capitalizing on this opportunity.

The year 2013 is a double feature year: it is the International Year of Statistics and the year of celebration of the Mathematics of Planet Earth. The year marks the anniversaries of a number of historic publications, including those of Jakob Bernoulli and Thomas Bayes. The celebrations are intended to be broadly inclusive and to feature a wide array of topics in probability and statistics.

In cooperation with other mathematics and statistics societies, the IMS is already planning a number of activities associated with one or both of these themes.

For example, at next year's Joint Statistical Meetings, in cooperation with the Bernoulli Society, to celebrate the 300th anniversary of the publication of Jakob Bernoulli's *Ars Conjectandi*, we will be cosponsoring a public lecture by David Spiegelhalter, who is the Winton Professor of the Public Understanding of Risk at Cambridge University.

Invited special sessions relating to the role of probability and statistics in planet earth are planned for major meetings. For example, there will be a session organized by Tilmann Gneiting on spatial and space time statistics at the European Meeting of Statisticians in July 2013. Special issues for some of our journals are also in the planning stages.

There is room for much more, especially, at the grass roots or individual level. The themes of 2013 provide us all with a unique chance to highlight the past and present achievements in statistics and probability and to ponder possible future prospects.

Within our profession, the IMS is well known for its activities related to research in probability and statistics, including our publication of high quality journals at reasonable cost, and sponsorship or cosponsorship of lectures and conferences featuring the latest research developments in our fields. The year 2013 provides us with an opportunity to further these efforts, but also to make our achievements more broadly known.

I will illustrate some initiatives that are already under way and outline ways in which you as individual members can help

this effort; although I encourage you all to think of other ways in which you might contribute. My description will fall under three headings, roughly corresponding to the past, present and future of the IMS.

The Past:

In 2010, the IMS celebrated its 75th anniversary. Regrettably, we have now seen the passing of many of the great contributors to the early years of our society and to the foundations of modern Probability and Statistics. In an effort to create a lasting resource highlighting our rich history, last year, the IMS created the position of Scientific Legacy Editor, with Paul Shaman being appointed as the first such editor. Paul is involved in developing webpages that feature the many contributions made to probability and statistics (and their applications) by all of our distinguished members. It is anticipated that this will be a valuable resource for increasing the profile to the world at large, as well as to our members, of our scientific heritage.

As a first step, Paul Shaman, with the technical assistance of Jim Pitman, has already made significant progress on establishing a reliable data set for our IMS Fellows. This project is ongoing and to support these and related efforts, the IMS has established a Scientific Legacy fund to which contributions are welcome. Stay tuned for the unveiling of the revamped IMS Fellows page.

The term Scientific Legacy as I have used it here is meant to be broadly construed. I believe that through this project we can develop a rich set of web resources highlighting past and present research achievements in probability and statistics.

Complementary to these web-based efforts, the IMS has a number of named lectures and awards honoring key contributors to probability and statistics. Last year, in cooperation with the Bernoulli Society, the IMS established a joint lecture in probability and stochastic processes, to be titled the Schramm lecture. The first Schramm lecture will be delivered by Itai Benjamini in 2013 at the Stochastic Processes and their Applications meeting in Boulder, Colorado. The expenses of the lecturer will be supported in part by the Schramm lecture fund. I am pleased to acknowledge the generous initial contributions to this fund by Microsoft Research and Cambridge University Press, as well as several IMS members; of course, contributions continue to be welcome. More recently, the IMS has entered the final stages in establishing a Blackwell lecture to honor the memory of David Blackwell.

The Present:

We certainly live in a very exciting time for our fields: not only are there challenging foundational problems, there is a seemingly ever-expanding list of applications in a broad range of fields in need of new research developments in probability and statistics.

Now, the IMS's high quality journals and sponsored/cosponsored conferences, such as the World Congress in Probability and Statistics that we are currently attending, do an excellent job of conveying the most recent research developments in probability and statistics to our own community. And high profile awards—recent Fields Medals to researchers in probability and related fields, the Gauss Prize awarded to K. Itô and the Abel Prize awarded to S.R.S. Varadhan, the U.S. National Medals of Science awarded to Brad Efron and S. R. S. Varadhan—all help to draw broader attention to the outstanding research achievements of our field.

While one might be tempted to rely on the wisdom of George Bernard Shaw (*"It is the mark of a truly intelligent person to be moved by statistics"*) and to leave our efforts at that, I believe that we need to be more proactive in illustrating the research achievements of probability and statistics to those in other areas of science and engineering, and to the public more generally.

Now of course, it is challenging to do this and perhaps the quote of Richard Feynman comes to mind: "If I could explain it to the average person, I wouldn't have been worth the Nobel Prize" (*People*, 1985). However, I believe that it is imperative that we make a special effort to highlight the importance of supporting research in probability and statistics, and to emphasize the need to involve experts in interdisciplinary work involving stochastics and statistics, and in the teaching of probability and statistics at all levels.

To emphasize this point, I will give one recent example to indicate why I believe a proactive stance is required. Although this example comes from the United States, there are signs of similar developments in some other countries.

Recently, a report by the Council of Advisors on Science and Technology to the President of the United States recognized inadequate pre-college mathematics preparation as a bottleneck in undergraduate STEM (Science, Technology, Engineering and Mathematics) education. As part of a proposed solution, the Committee recommended teaching and curriculum development of University level mathematics by faculty from mathematics-intensive disciplines *other than mathematics*, including physics, engineering, and computer science; and furthermore, for a new pipeline to be opened for producing elementary and high school mathematics teachers from undergraduate and graduate programs in mathematics-intensive fields other than mathematics.

This recommendation was part of an initiative to support the worthy aim of increasing the number of university graduates with degrees in science, technology, engineering or mathematics. Perhaps the recommendation is not so surprising given that the committee that made it, did not include a single professor of mathematics or statistics, although it did include professors of biology, computer science, chemistry, economics, engineering, geology and physics, presidents of universities and representatives of scientific research institutes and industry. (You can read the report at http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast-engage-to-excel-final_2-25-12.pdf).

After the initial shock of hearing this recommendation, one might reflect on how history appears to repeat itself: in 1940, Harold Hotelling, in an address to the IMS (*Annals of Mathematical Statistics*, **11** (1940), 457–470), argued for the teaching of the fundamentals of university-level statistics by specialists in statistics, rather than those involved only in applications thereof.

Taking an optimistic view, I believe this should serve as a wake-up call that there is an urgent need for us to convey to those outside of our field the importance of supporting fundamental research in probability and statistics, and in involving experts in probability and statistics in interdisciplinary research and in the teaching of these subjects. I believe that these efforts will be all the more effective if we combine with other mathematics and statistics societies in this effort.

While we already have strong cooperation with several other societies that promote probability and statistics research, such as the American Statistical Association, the Applied Probability Society of Informs, the Bernoulli Society, and the ISI, the IMS continues to reach out to other societies, especially those using mathematical and statistical methods in interdisciplinary research.

As part of this effort, recently the IMS joined as an associate member of ICIAM, the International Council for Industrial and Applied Mathematics, to foster stronger ties to the applied mathematics community. ICIAM holds a quadrennial congress featuring the latest developments in industrial and applied mathematics and increasingly features topics related to stochastics and statistics.

The Future:

Amongst the celebrations of 2013, there will be various opportunities to ponder the future of probability and statistics and I encourage you all to participate in these activities.

One area in which I expect there will be continuing growth is in problems spurred by applications that require expertise from several different fields and which may lie at the intersection of

IMS Presidential Address *continued*

the areas of mathematics, probability, statistics, informational and computational sciences.

While I am sure there are many different directions that will be contemplated, I would like to mention two here, as examples of some of the prospects for the future.

The first relates to quantitative biology, which is sometimes called the new biology. While some parts of biology such as ecology and evolution, neuroscience and genomics, have developed sophisticated uses of probability and statistics in collaboration with experts in these fields, some other parts of biology have not previously sought such expertise intensively. However, there seems to be a sea-change occurring in biology, where there is a desire to have a blend of experiments, modeling and analysis, and computation, in many areas of biology. To make the connections between models and experiments will often require a knowledge of mathematics, stochastic processes, statistics and computational methods, as well as biology, of course. While this is a natural place to involve probabilists and statisticians, I think it will require a special effort to make connections, as many biologists are not highly trained in mathematics or statistics and may not think to seek out experts in

probability and statistics to help them. I also believe that this is an area where collaborations of teams from many different quantitative areas will be very beneficial and hence the need for us to connect with applied mathematicians, physicists, computer scientists, engineers, and so on.

The second area that I would like to mention is networks. Now, networks of various kinds have been studied for some years and we have all heard of newer social networks, but there appears to be a growth in problems associated with complex networks where information can play an important role and can influence outcomes. An example is transportation systems such as freeways where the availability of real time traffic information and economic incentives can alter the behavior of individuals and thereby affect quantities such as congestion in a network. Such systems are sometimes called societal networks. The interplay of economics, sociology, probability and statistics here provides for challenging problems.

Of course, there is a wealth of other topics of growing interest, I simply chose two that are colored by my own experience. Indeed, one of the strengths of probability and statistics is that there are *so many* connections to other fields and to applications. This also presents a challenge in that we do not have one identity, but a whole spectrum of appearances.

Unique Opportunity

In closing, let me emphasize that I believe 2013 provides us with a unique opportunity to feature the achievements and potential contributions of probability and statistics to those outside of our field, including researchers in other fields, teachers, the general public, and government decision makers.

To be effective, we all need to try to help in whatever ways we can. Whether it be by sponsoring public lectures at your University, or organizing events for undergraduate majors, or writing short accessible summary snapshots of research (“nuggets”), or contributing survey articles to one of our survey journals, or inviting your government representative to events highlighting the importance of probability and statistics in interdisciplinary research and the teaching of these subjects, or contributing to brainstorming sessions on future new directions, or other activities you might think of, I call on you all to seize the opportunity afforded by this special year devoted to highlighting probability and statistics.

Ruth Williams

IMS President, 2011–2012



Ruth Williams (right) transfers the presidency of IMS, with a symbolic handshake, to Hans Künsch at the World Congress. Hans writes about his presidency on page 10.

World Congress: *a view from Nigeria*

Dr. Ezra Gayawan is a Lecturer in the Department of Mathematical Sciences at Redeemer's University in Nigeria. In this article, he shares some of his personal experience of attending the World Congress in Probability and Statistics (and the pre-meeting immediately before it, for young researchers). He writes:

It was an enriching outing for me being in Istanbul from 6–14 July, 2012. To some, going to such a tourist city would mean an opportunity to visit places and see ancient things. But to me, it was a time to meet people in my chosen career from all over the world and to learn from their experiences. Thanks to the full sponsorship from the organizers, courtesy of the various sponsors: without this, I would definitely not have made it to the congress.

First, it was the Pre-World Congress Meeting of Young Researchers in Probability and Statistics, held at the beautiful campus of Koç University. This was a gathering of young researchers, with the majority coming from developing countries. During the weekend, invited speakers who were masters of their areas of speciality, took turn to present papers on their work. Some of the speakers were also interviewed, sharing with us their past and present experiences in their chosen careers, so that we could learn from them. Among the speakers, editors of some high-ranked journals in probability and statistics shared with us “what, where and how” to publish. Selected participants from developing countries were invited to make a round-table discussion on their experience of being a young researcher in a developing country. I was privileged to speak for my country, Nigeria. Apart from the rare opportunity the meeting offered us to interact one-on-one with some of the speakers, who were also key figures in the main congress, we had opportunity of mingling and sharing experiences with one another, which I believe will have long-lasting effects.

Next was the main congress that started on Monday, 8th July. It was my first time in a conference of such magnitude and hence, I was determined to get the best it had to offer. I had carefully gone through the program book the night before as our kits were given to us at the end of the Pre-World Congress Meeting, to choose which of the presentations to attend. I saw some of the big names whose work I had read, in the program book. I was surprised, most of them were scheduled for presentations, signifying that their age and achievements notwithstanding, they were still researching. This was a great challenge and lesson to me. In fact, I had to attend the presentation of one of them whose great profile I have seen on the internet before. I just wanted to hear her speak.

I attended most of the invited and contributory sessions that appealed to me and which were in my area of research interest. I was amazed at some of the new findings presented by some of the speakers. On a few occasions, I got to meet the presenters after their presentations for interaction while I took the contacts details of others. I was exposed to some new ideas from the many presentations I listened to both at the Pre-Congress Meeting and at the main Congress. I left with a determination that new ideas gained during this period would be vigorously pursued.

Another area of the congress that appealed to me was the books displayed by the publishers that came around. We often find it difficult in Nigeria to get hold of some of those books. I therefore used the opportunity to purchase those I could

afford. I will never forget the gesture by a representative of one of the publishers who upon discovering I was from Nigeria, simply handed me a book I was negotiating to buy.

Despite the large crowd of scholars that gathered from all over the world to discuss their recent findings in all areas of statistics, I was not so happy to be the only one, to the best of my knowledge, from the world's most populous black nation. Maybe many were not aware of the congress as such meetings are not announced by the umbrella body of statistics in the country which I believe should be a forum where issues of this nature are communicated through their website. I share some responsibility: for I didn't inform all those I could, when I got to hear of it through one of the editions of this *Bulletin*. I will also not rule out the fact that there might have been those willing to attend but who were financially handicapped.

However, by 2016 when the Ninth World Congress will be held, I believe that, unlike the Istanbul experience, my country will be well represented.

Ezra Gayawan



President's Welcome: Hans Rudolf Künsch



Hans Rudolf Künsch,
IMS President 2012–13

I took over as president in July at the World Congress, and I have been quite busy since then in my new role, having already sent and received several hundred emails related to IMS. One of the most important duties of the president at the beginning of his/her term is to make appointments to fill all committee vacancies. This made me aware once again how strongly IMS relies on the voluntary services of its members, and I would like to thank on this occasion

all those who have contributed their time and knowledge. In close consultation with Past-president Ruth Williams and President-elect Bin Yu, we are currently preparing invitations for new committee members based on the quality of their research, their knowledge of the tasks of the various committees, and their efficiency and reliability—while also making sure that the composition of the committees reflects the diversity of our membership. (The many IMS committees are detailed in the handbook at www.imstat.org/handbook/committees.html.) If you are at the beginning of your career, you might wonder what you can do to be invited as a member of one of these committees one day. Often, a first step is to be asked to join the editorial board of a journal, and for this, editors usually observe who provides timely and informative referee reports in addition to publishing excellent research papers.

Another issue that a president has to deal with is the budget, now finalized for the fiscal year 2013. Fortunately our budget is back in the black after some losses during 2005–2007. So in the near future things are stable and we are able build up our reserves again, but some concerns about the long term financial perspective remain which are mainly due to the uncertainty about how the model of journals subscribed by libraries will develop. I intend to go into more detail on this in one of the coming issues of the *Bulletin*.

The president is also expected to set an agenda to develop the IMS. So how does my agenda look? Well, my first goal is to build upon the initiatives of my predecessors, as described for instance in the article by Ruth Williams in this same issue last year, like seizing the opportunities of the year 2013 to make statistics and probability more visible, and making sure that the Blackwell lecture can start as planned at the annual meeting in 2014 [*Ruth refers to this in her Presidential Address article, on page 6*]. One of my special concerns is to promote probabilistic and statistical reasoning in all areas of science. While stochastic methods are well established

in some fields like clinical trials, computer vision or finance, in others, such as environmental science, deterministic models are still the dominant paradigm since they are based on laws of nature and our mechanistic understanding of the processes in the system. However, there are also substantial uncertainties about parameters, inputs or unresolved processes. Recently the numerical analysis community has started to treat such uncertainties as stochastic so that the solutions of the associated partial differential equations also become random. They are developing faster alternatives to Monte Carlo in order to determine the distribution of these solutions (see, for example, A. Cohen, R. Devore and C. Schwab, “Analytic regularity and polynomial approximation of parametric and stochastic elliptic PDE’s,” *Analysis and Applications*, Vol. 9, (2011), 11–47). I therefore think that probabilists and statisticians on the one hand, and numerical analysts and applied mathematicians on the other, can profit a great deal from closer cooperations. To this end, I am glad that IMS has recently become an associate member of ICIAM, the International Council for Industrial and Applied Mathematics. I will do my best to ensure that we do not miss the opportunities this offers.

Summer is also the traveling season, and I attended three conferences: the ISBA World Meeting in Kyoto, the Asia-Pacific Rim Meeting in Tsukuba, and the World Congress in Istanbul. At all three occasions, I was impressed by the diversity and quality of the lectures I attended. I particularly enjoyed listening to lectures which gave me an introduction and overview on a topic where I am not actively working. Getting a glimpse into the beauty and the power of mathematical ideas is one of the attractions of our profession! Although the meetings I attended were small compared to the JSM, sometimes the program with a large number of interesting parallel sessions made the choice difficult for me. I believe that we should consider seriously the possibility of having fewer oral presentations and more posters in big meetings. Currently, most of us prefer to give an oral presentation than a poster, but if the poster sessions are well organized (at convenient times, without competition from lectures, and combined with some social event), then they can be more rewarding both for presenters and the audience, as the experience from other events like the conferences on Neural Information Processing Systems (NIPS) or the meetings of the American or European Geophysical Unions show. Apparently, the program committee for the next JSM is considering an experiment having poster sessions combined with five-minute talks to advertise the poster which seems an interesting and worthwhile idea to me.

A key concept and challenge which was often mentioned at

President's Welcome: *continued from previous page*

these conferences was “Big Data” or the “Data Deluge”. Undoubtedly, the amount of data that is collected every day has reached an unbelievable level, in particular through our use of services on the web. However, datasets that are too big for most conventional statistical analyses have been around for more than 20 years. I think it is instructive to look also back at what people have said about this topic, e.g. Peter J. Huber in “Massive Datasets Workshop: Four Years After,” *Journal of Computational and Graphical Statistics*, 8 (1999), 635–652, in order to see what has changed since and which of the challenges are still with us.

During the long hours on the plane and some quiet times in between conferences, I also had the pleasure to read books. One of them, *Thinking, Fast and Slow* by Daniel Kahneman (Penguin Books 2012), has many connections to probability and statistics. In particular, it has several astonishing examples of how our mind fails to handle statistical information in a coherent and logical way. Some of these will make a welcome addition to the discussions in my elementary statistics courses.

I hope that these varied comments have given you an impression of me as incoming IMS president. I appreciate your continued support of IMS very much, and if you have any ideas about how IMS could fulfill its mission even better, please contact me at president@imstat.org.

Nominations sought for awards

Alice T. Schafer Mathematics Prize for Excellence in Math by an Undergraduate Woman

Nomination deadline: October 1, 2012

The Executive Committee of the Association for Women in Mathematics (AWM) calls for nominations for the Alice T. Schafer Mathematics Prize to be awarded to an undergraduate woman for excellence in mathematics. The nominee may be at any level in her undergraduate career but must be an undergraduate as of October 1, 2012. She must either be a US citizen or have a school address in the United States. The Schafer Prize is named for former AWM president and one of its founding members, Alice T. Schafer, who contributed a great deal to women in mathematics throughout her career. The 2013 Schafer Prize will be awarded at the Joint Prize Session at the Joint Mathematics Meetings in San Diego, CA, January 2013.

The letters of nomination should include, but is not limited to, an evaluation of the nominee on the following criteria: quality of performance in advanced mathematics courses and special programs; demonstration of real interest in mathematics; ability for independent work in mathematics; performance in mathematical competitions at the local or national level, if any. With the letter of nomination, please include a copy of transcripts and indicate undergraduate level. Additional supporting materials (e.g., reports from summer work using math, copies of talks given, recommendation letters from professors, colleagues, etc.) should be included with the nomination, if applicable.

Nominations should be submitted as ONE PDF file via MathPrograms.org at <https://www.mathprograms.org/db/programs/138> with a copy of transcripts included at the end of the file. Questions? Email awm@awm-math.org.

Nominations: Marvin Zelen Leadership Award in Statistical Science

The Department of Biostatistics at the Harvard School of Public Health named Nicholas P. Jewell, PhD, as the recipient of the 2012 Marvin Zelen Leadership Award in Statistical Science. Dr. Jewell, University of California, Berkeley, delivered a lecture entitled *Counting Civilian Casualties* on June 1 at Harvard University.

This annual award, supported by colleagues, friends and family, was established to honor Dr. Marvin Zelen's long and distinguished career as a statistician and his major role in shaping the field of biostatistics. The award recognizes an individual in government, industry, or academia, who by virtue of his/her outstanding leadership has greatly impacted the theory and practice of statistical science. While individual accomplishments are considered, the most distinguishing criterion is the awardee's contribution to the creation of an environment in which statistical science and its applications have flourished. The award recipient will deliver a public lecture on statistical science at the Harvard School of Public Health and will be presented with a citation and an honorarium.

Nominations for next year's award, to be given in May/June 2013, should be sent to the *Marvin Zelen Leadership Award Committee, Department of Biostatistics, Harvard School of Public Health, 655 Huntington Avenue, Boston, MA 02115* or via email to vbeaulie@hsph.harvard.edu.

Nominations should include a letter describing the contributions of the candidate, specifically highlighting the criteria for the award, and a curriculum vitae. Supporting letters and materials would be extremely helpful to the committee. All nominations must be received by December 1, 2012.

In a nominating mood? More awards on page 13 and 18...

COPSS Awards: 2012 Winners

Bhramar Mukherjee, COPSS Treasurer/Secretary, reports on the Committee of Presidents of Statistical Societies (COPSS) annual awards, presented at JSM. The call for nominations for next year's awards is on the next page. We'll have Bhramar's interview with the Presidents' Award winner, Sam Kou, in the next issue.

We are pleased to announce the 2012 COPSS Award winners, presented at JSM in San Diego on August 1 by COPSS president Xihong Lin. The winner of the Presidents' Award is **Samuel S. Kou** from Harvard University. The citation for the award read, *"for groundbreaking contributions to stochastic modeling and statistical inference in single molecule biophysics; for pioneering the equi-energy sampler; for fundamental contributions to Bayesian, empirical Bayes and nonparametric methods; and for outstanding service to the statistical profession and contribution to statistical education."*

The Elizabeth L. Scott award winner for 2012 is Mary Gray from American University, *"for her lifelong efforts to foster opportunities in statistics for women and to further the careers of academic women; and for creating a forum for discussing the role of women in mathematics; for exposing discrimination, and for exchanging strategies, encouraging political action, and promoting affirmative action."*

As previously announced, the 2012 Fisher Lecturer was Roderick J. Little of the University of Michigan, *"for outstanding statistical research in the modeling and evaluation of missing data, sample survey and causal inference; for the clear and comprehensive application of these and other methodologies in science and public policy arenas; and for diverse and effective professional and academic leadership contributions."* Rod's lecture was titled, "In Praise of Simplicity, not Mathematistry! Ten Simple, Powerful Ideas for the Statistical Scientist."



Above: Samuel S. Kou, accepting the COPSS Presidents' Award.

Right: Mary Gray was awarded the Elizabeth L. Scott Award by the COPSS President, Xihong Lin.

Photos: Eric Sampson/ASA



Medallion Lecturers at JSM

[Below] Three IMS Medallion Lecturers at JSM: Yoav Benjamini (Tel Aviv), Emmanuel Candes (Stanford), and Don Geman (Johns Hopkins)



Yoav Benjamini



Emmanuel Candes



Donald Geman (right) with Peter Bickel

COPSS Awards: 2013 Nominations

Please visit <http://www.niss.org/copss> for details of eligibility and nomination requirements for all these awards. Send nominations, preferably by e-mail in PDF format, to the committee chairs.

Presidents' Award

The **Presidents' Award** is presented annually to a young member of one of the participating societies of COPSS. The award is presented in recognition of outstanding contributions to the statistics profession. It is typically granted (with some exceptions) to an individual who has not yet reached his or her 41st birthday during the calendar year of the award (see COPSS website for more details on eligibility criteria). Nominations must be sent by **January 15, 2013**, preferably by email in PDF format, to:

Raymond J. Carroll

Chair, COPSS Presidents' Award Committee
Department of Statistics
Blocker Building, Room 447
Texas A&M University
3143 TAMU, College Station TX 77843-3143
t 979-845-3141 f 979-845-3144
e copsspresidents2013@gmail.com

Florence Nightingale David Award

The **Florence Nightingale David Award** is presented biennially (odd years) to recognize a female statistician who exemplifies the contributions of Florence Nightingale David, an accomplished statistician in combinatorial probability theory, author or editor of numerous books, first Chair of Department of Statistics at University of California at Riverside and the first recipient of the Elizabeth L. Scott Award. The criteria for the award are excellence as a role model to women and in: statistical research; leadership of multidisciplinary collaborative groups; statistics education; and service to the profession. Nominations should be sent by **January 15, 2013** preferably by email in PDF format to:

Nancy Reid

Chair, COPSS FN David Award Committee
Department of Statistics
100 St. George St. Room 6018
University of Toronto
Toronto ON Canada M5S 3G3
t 416-978-5046 f 416-978-5133
e reid@utstat.utoronto.ca

George W Snedecor Award

The **George W. Snedecor Award** is presented biennially (odd years) in honor of its namesake, a pioneer who had worldwide impact in improving the quality of scientific methods concerning the use of statistical methodology. The award recognizes an individual who has been instrumental in the development of statistical theory in biometry and a noteworthy publication in biometry by that individual within three years of the date of the award. Nominations should be sent by **January 15, 2013** preferably by email in PDF format to:

Nilanjan Chatterjee

Chair, COPSS Snedecor Award Committee National Cancer Institute
Division of Cancer Epidemiology and Genetics
6120 Executive Blvd, EPS 8020
Rockville MD 20852
t 301-402-7933
f 301-402-0081
e chattern@mail.nih.gov

RA Fisher Lectureship and Award

The **Fisher Lectureship and Award**, awarded annually, was established in 1963 by COPSS to honor the outstanding contributions of the late Sir Ronald Aylmer Fisher, and those of a current statistician, on aspects of statistics and probability that closely relate to the scientific collection and interpretation of data. The award exists to recognize the importance of statistical methods for scientific investigations. Nominations should be sent by **December 15, 2012** preferably by email in PDF format, to:

Kathryn Roeder

Chair, COPSS Fisher Lecturer Award Committee
Carnegie Mellon University
Department of Statistics
232 Baker Hall
Pittsburgh, PA 15213
t 412-268-2513
f 412-268-7828
e kathryn.roeder@gmail.com

Recent papers

Annals of Probability

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

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.

Volume 40, number 4: July 2012

- Universality in one-dimensional hierarchical coalescence processes . . . ALESSANDRA FAGGIONATO, FABIO MARTINELLI, CYRIL ROBERTO & CRISTINA TONINELLI; 1377-1435
- Quenched asymptotics for Brownian motion of renormalized Poisson potential
and for the related parabolic Anderson models XIA CHEN; 1436-1482
- Generalized self-intersection local time for a superprocess over a stochastic flow AARON HEUSER; 1483-1534
- Tight Markov chains and random compositions BORIS PITTEL; 1535-1576
- Wigner chaos and the fourth moment TODD KEMP, IVAN NOURDIN, GIOVANNI PECCATI AND ROLAND SPEICHER; 1577-1635
- The convex minorant of a Lévy process JIM PITMAN AND GERÓNIMO URIBE BRAVO; 1636-1674
- A spatial version of the Itô–Stratonovich correction MARTIN HAIRER AND JAN MAAS; 1675-1714
- Backward stochastic differential equations with rough drivers JOSCHA DIEHL AND PETER FRIZ; 1715-1758
- The stochastic reflection problem on an infinite dimensional convex set
and BV functions in a Gelfand triple MICHAEL RÖCKNER, RONG-CHAN ZHU AND XIANG-CHAN ZHU; 1759-1794
- The local quantization behavior of absolutely continuous probabilities SIEGFRIED GRAF, HARALD LUSCHGY AND GILLES PAGÈS; 1795-1828
- Critical Brownian sheet does not have double points ROBERT C. DALANG, DAVAR KHOSHNEVISAN, EULALIA NUALART, DONGSHENG WU AND YIMIN XIAO; 1829-1859

Annals of Applied Probability

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

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.

Volume 22, number 4: August 2012

- High order recombination and an application to cubature on Wiener space C. LITTERER AND T. LYONS; 1301-1327
- Effect of scale on long-range random graphs and chromosomal inversions NATHANAËL BERESTYCKI AND RICHARD PYMAR; 1328-1361
- Asymptotic shape for the contact process in random environment OLIVIER GARET AND RÉGINE MARCHAND; 1362-1410
- Path decomposition of ruinous behavior for a general Lévy insurance risk process PHILIP S. GRIFFIN AND ROSS A. MALLER; 1411-1449
- Achlioptas process phase transitions are continuous OLIVER RIORDAN AND LUTZ WARNKE; 1450-1464
- Outperforming the market portfolio with a given probability ERHAN BAYRAKTAR, YU-JUI HUANG AND QINGSHUO SONG; 1465-1494
- Ergodicity and stability of the conditional distributions of nondegenerate Markov chains XIN THOMSON TONG AND RAMON VAN HANDEL; 1495-1540
- Small-time asymptotics for fast mean-reverting stochastic volatility models JIN FENG, JEAN-PIERRE FOUQUE AND ROHINI KUMAR; 1541-1575
- Robust maximization of asymptotic growth CONSTANTINOS KARDARAS AND SCOTT ROBERTSON; 1576-1610
- Strong convergence of an explicit numerical method for SDEs
with nonglobally Lipschitz continuous coefficients MARTIN HUTZENTHALER, ARNULF JENTZEN AND PETER E. KLOEDEN; 1611-1641
- Balanced allocation: Memory performance tradeoffs ITAI BENJAMINI AND YURY MAKARYCHEV; 1642-1649
- Existence of random gradient states CODINA COTAR AND CHRISTOF KÜLSKE; 1650-1692
- Poissonian statistics in the extremal process of branching Brownian motion LOUIS-PIERRE ARGUIN, ANTON BOVIER AND NICOLA KISTLER; 1693-1711
- Total variation bound for Kac's random walk YUNJIANG JIANG; 1712-1727
- Continuous-time vertex reinforced jump processes on Galton–Watson trees ANNE-LAURE BASDEVANT AND ARVIND SINGH; 1728-1743

Rick's Ramblings:

How to give a 25-minute talk (Second Edition)

This column was first written during the 2009 Cornell Probability Summer School, and is now revised, based on talks at the 2012 school. There are now five commandments:

1. Less is more: keep it simple.
2. Thou shalt not prove.
3. Do unto others as you would have them do unto you.
4. If you are going to use slides, then only use slides.
5. Make good use of your time, but when it is over, STOP!

Expanding on these Rules:

1. All you should try to do in the talk is to explain and motivate the problem, state the main result, relate it to the literature, and explain why it is interesting.
2. It is good to describe the key ideas that make the proof work, but you should not go into much detail. To gauge the right level, suppose that you are drinking a beer and talking to a friend of yours about your research.
3. I know we have all experienced pain at the talks of others. It is important to remember your reactions to other people's talks when you give yours. When the speaker rushes headlong into his favorite proof, we often scratch our heads and say, "What the heck is he talking about?" We look at slides jammed full of text and equations and think, "I can't read that."
4. In the Cornell Summer School lecture room, the boards have to be lowered to reveal the screen, which is a wall painted white. Conversely, if you want to use the board then you have to raise it up. At this point you have two bad choices: write on top of the displayed slide or at the ends of the board which are dark. It is much better to have everything you want to say in the slides themselves. You can always skip them if you want. In the old days when one wrote with pens on transparencies it was difficult to change your talk at the last minute, but now all you have to do is re-TeX the file, so you can make changes up to the last minute.
5. As in hypothesis testing, there are two types of errors. The second type of error, which is rarer, but should also be avoided, is to speak for ten of your 25 minutes and then sit down. If you don't have much to say, then don't sign up to give a talk. The first, and more serious, error is to run over your allotted time. At conferences with parallel sessions, you need to keep within time limits so that the whole process can function smoothly, but one should do this even when there is not that type of time constraint. Returning to Rule 3, as you have probably

Giving a talk is a key skill. Hone it and earn thanks from Rick Durrett, and all your future audiences.



experienced at seminars, once the allotted time is up, people's interest in what you are saying declines faster than the tail of the normal distribution.

Since I have a little more space left I will include some wisdom I found on the internet (from www.allaboutpresentations.com)

"The Question: *How many slides for a presentation?*

The Answer: *It does not matter. Have the right content, say one thing per slide and finish before the allotted time. Do not worry how many slides your presentation runs into. But I will still give you a ball park number. Normally in the business presentations I have seen in my career, the presenter spends two to three minutes per slide. Hence: **No. of slides = (No. of minutes) / 2***

It is better to have lesser number of slides and finish before than to exceed time. By finishing early you also get more time for question and answers."

The Cornell CS department is more poetic:

A short talk is a long abstract. If a one-hour talk corresponds to a paper, then a short talk corresponds to a long abstract. It should communicate without distracting detail.

A short talk is a captivating lead paragraph. For a reporter, the quality of that lead paragraph will determine who reads on. A successful short talk will encourage the listener to ask questions, or to buttonhole you outside the lecture hall, or to pursue your literature pointers.

A short talk is a commercial. It is a great occasion to advertise your research accomplishments and/or expository skills. But unlike a prime time spot on network TV, it should give an accurate picture of the product!

I am running out of time = space so I should stop (see Rule 5). William T. Ross has some more advice in his blog: <http://blog.richmond.edu/wross/2008/03/26/how-to-give-a-good-20-minute-math-talk/>. In essence: Prepare. Practice. Less is more. Don't include any proofs. End on time!

NSF Graduate Research Fellowship: *apply now*

Many students getting ready to graduate with their baccalaureate degrees contemplate graduate studies or plan to continue their education. One of the major obstacles can be funding: students who have just finished their undergraduate education may not want to add more tuition bills to the pile. If only there were a way to help them continue their education and execute some of the research that they wish to do... Ah, but there *is*!



One of the most valuable funding mechanisms for mathematics and statistics graduate students is the US National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP). The Director of the Division of Mathematical Sciences at NSF, Dr. Sastry Pantula, stated, “[The] NSF Graduate Research Fellowship (or an Honorable Mention in the competition) is certainly a feather in any future scientist’s cap! There are many well-qualified mathematics and statistics students in this country, and I would love to see many, many more of them take advantage of this excellent opportunity.” In 2012, the GRFP awarded 2,000 fellowships, and only 75 of those were to students in mathematics and statistics (3.75%; visit GRFP Awardee and Honorable Mention list, at <https://www.fastlane.nsf.gov/grfp/AwardeeList.do?method=loadAwardeeList>).

What are the key elements of the fellowship? It is a five-year award that is worth \$126,000. The NSF Graduate Fellow receives three years of support (useable over a five-year period). For each of these three years, the Fellow receives a \$30,000 stipend and the graduate institution receives a \$12,000 educational allowance to cover tuition and all required fees. The Fellow also has access to international research opportunities and to supercomputing resources.

Eligible applicants must be a US citizen, national or permanent resident, and an early-career graduate student pursuing a research-based master’s or doctoral degree in an NSF-supported field. In mathematical and statistical sciences, the following categories are included: Algebra, Number Theory, and Combinatorics; Analysis; Applied Mathematics; Biostatistics; Computational and Data-enabled Science; Computational Mathematics; Computational Statistics; Geometric Analysis; Logic or Foundations of Mathematics; Mathematical Biology; Probability; Statistics; Topology; or Other (related fields not included in the list)

Applicants must be planning to enroll in an accredited institution in the United States by the Fall following announcement of the award. Anyone who has already received a graduate degree is not eligible.

For some tips on how to apply, see the box on the next page.

Adam Kapelner and Gina-Maria Pomann, two current NSF Graduate Fellows, hammer home the importance of some of these requirements. Adam received his bachelor’s degree in Mathematics and Computer Science at Stanford University and is currently working on his PhD in Statistics at The Wharton School of the University of Pennsylvania. His research involves machine learning and model selection. He attributes the GRFP for giving him the time to be able to immerse himself in his research, and as a result, submitting and publishing his work in various journals. He is helping lead the charge in assisting interested students in his department with their applications to the GRF. When asked what advice Adam could give students interested in applying to the GRF, he stated his best recommendation would be for candidates to describe their research experience. “Can you make an impact in science? You need to illustrate your potential in research.” He also acknowledged that he heard about the fellowship through a friend who thought it might be beneficial when applying to graduate school.

“*Get as much undergraduate research experience as possible*”

—Advice from current NSF Graduate Fellow

Gina-Maria Pomann is pursuing her PhD in Statistics at North Carolina State University. Her research interests are functional data analysis with applications to magnetic resonance imaging and dynamic treatment regimens. She feels that the GRF, in combination with her AT&T Labs Fellowship, has allowed her to work on an array of different projects as well as with different mentors. Gina-Maria started out earning an AS degree from Middlesex County College and then transferred to The College of New Jersey where she earned her Bachelor’s in Mathematics with a minor in Statistics. Gina first learned about graduate school and the GRF at the Mathematical Science Research Institute Undergraduate Program (MSRI-UP). MSRI-UP also took Gina and her fellow

Applying for the NSF Graduate Research Fellowship: Tips for Students

To enter the competition, you need to submit a complete application via NSF FastLane:

<https://www.fastlane.nsf.gov/grfp/Login.do>

The application consists of a personal statement, description of previous research experience, proposed plan of research, and transcripts. Part of the application also includes three letters of reference, submitted separately via FastLane by the reference writers. Reviewers evaluate the applications on the basis of the two National Science Board criteria: **Intellectual Merit** and **Broader Impacts**.

For Intellectual Merit, you will need to demonstrate your academic capability and other conventional requisites for scholarly, scientific study. Details such as the ability to plan and conduct research, work in a team as well as independently, and interpret and communicate research are useful.

To demonstrate Broader Impacts, convey how your research will contribute on a larger scale to society and the breadth of its audience. Will it encourage diversity, broaden opportunities, and allow participation of all citizens in science and research? If so, this should be evident to the reviewer. Examples of Broader Impacts activities may be accessed at <http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf>.

When preparing the application, you should be clear and specific, so that the reviewer doesn't struggle as he or she is reading the application. Describe your experiences - whether they are personal, professional, or educational - that have been factors in your preparation and that have driven you to pursue graduate study. Be detailed about your involvement in any scientific research activities and what you learned from those experiences. If you have not been involved with any direct research, then describe any activities that you believe have prepared you to start research. Also don't let the reader try to glean from your writing that you "could" be a leader in some capacity. Instead, describe your leadership potential directly. How do you see yourself contributing to research, education and innovation? Provide the reviewers with your career aspirations and specific goals you hope to accomplish. You need to sell yourself in your application.

Graduate Research Fellowships: *continued from previous page*

participants to a Society for Advancement of Chicanos and Native Americans in Science (SACNAS) conference where the students were further informed about the GRF as well as other opportunities. Her advice to students seeking a GRF is, "Get as much undergraduate research experience as possible!" She states her early research experiences helped her focus her research interests and helped her to write her GRF application.

For the official NSF solicitation, visit the Division of Graduate Education website, http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201, for announcement of the new 2012 Solicitation. For more information, and tips from awardees and reviewers, go to the GRFP Website at <http://www.nsfgrfp.org>, or call 1-866-NSF-GRFP (673-4737), or email info@nsfgradfellows.org.

For access to the online applications, user guides and other official announcements log on to the FastLane website at <https://www.fastlane.nsf.gov/grfp/> ■

Conference Report

Dan Nettleton, Laurence H. Baker Endowed Chair in Biological Statistics and Professor in the Department of Statistics at Iowa State University, co-organized this conference in May that was co-sponsored by the IMS. He writes:

The Conference on New Statistical Methods for Next Generation Sequencing Data was held on May 11, 2012, in Howe Hall's Alliant Energy Lee Liu Auditorium on the campus of Iowa State University. Invited plenary presentations were given by Sunduz Kees, University of Wisconsin-Madison (*Statistical and Computational Aspects of ChIP-seq Data Analysis: From Design to Biological Discovery*); Alicia Oshlack, Murdoch Children's Research Institute, Australia (*Challenges in the Analysis Pipeline for RNA-seq Data*); Terry Speed, University of California at Berkeley (*Co-methylation*); Nancy Zhang, University of Pennsylvania (*Detection of DNA Mutations in Case Control and Multisample High-Throughput Sequencing Data*); and Hongyu Zhao, Yale University (*Design Issues in Using NGS in Genetics Association Studies*). These excellent talks were accompanied by a poster session that highlighted the work of 15 research groups. More than 230 people participated in the conference. The conference was co-organized by Karin Dorman, Peng Liu, and Dan Nettleton, and co-sponsored by IMS, the American Statistical Association, and the Department of Statistics, the Biotechnology Council, and the Laurence H. Baker Endowment at Iowa State University.

Award nomination

L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics

www.sph.bu.edu/CupplesAward

This annual award by Boston University School of Public Health, Department of Biostatistics, recognizes a biostatistician whose academic achievements reflect the contributions to teaching, research, and service exemplified by Professor L. Adrienne Cupples. Dr. Cupples joined the faculty at the Boston University School of Public Health (BUSPH) in 1981 and later served as founding Chair of the Department of Biostatistics and Co-Executive Director of the Graduate Program in Biostatistics. During her tenure at BUSPH, she has advanced the field of biostatistics through extensive publications in major journals and book chapters on collaborative and methodological research, development and effective teaching of a wide range of biostatistics courses, and mentorship of numerous graduate students and faculty.

Eligibility and Nominations

To be eligible, the nominee must be an internationally recognized statistician/biostatistician who has made significant

contributions to the statistical sciences through teaching, research, and service; and is willing to deliver a lecture at the award ceremony in the Department of Biostatistics at Boston University on April 4th, 2013.

Nominations should include the nominee's name and contact information, rationale for the nomination not exceeding two pages in length, and the nominee's curriculum vitae. Nominations may be made by faculty, collaborators, students, or staff working with or familiar with the work of the nominee. Nominations will be accepted through November 15, 2012 and the winner will be notified by December 1.

Please send nominations via e-mail to Lisa M. Sullivan, PhD, Associate Dean for Education, Professor and Chair, Department of Biostatistics e lsull@bu.edu

Selection Criteria

Criteria for the award include, but are not limited to, excellence in the following areas:

- Biostatistics education (teaching, curriculum design, course development)
- Collaborative or methodological biostatistical research
- Service to the profession
- Student and faculty mentoring

Award Selection Committee

The Award Selection Committee will be comprised of eight members, six members of the faculty of the Boston University Department of Biostatistics representing varying areas of expertise and faculty rank and two student members currently enrolled in the graduate program in Biostatistics at Boston University.

Winners

Winners of the award will receive a \$1000 honorarium, and all expenses to attend and present at the Boston University Department of Biostatistics at an Annual Award Day, generally held on the first Thursday in April. Faculty, staff and students interested in biostatistics from the Boston area will be invited to the presentation given by the Cupples Award recipient.

IMS-China Election Results

The newly-elected committee of IMS-China has 16 members (two members tied in number of votes). The Chair-elect of the IMS-China Committee is Shuyuan He. The Program Secretary is Zenghu Li and the Treasurer is Fuzhou Gong. IMS-China Committee members are: Mingyao Ai, Hengjian Cui, Junyi Guo, Xianping Guo, Taizhong Hu, Liuquan Sun, Shanjian Tang, Qihua Wang, Zhaojun Wang, Yaohua Wu, Zhen Wu, Baoxue Zhang, Lixin Zhang, Zhongzhan Zhang, Weian Zheng, and Zhongyi Zhu. Thank you to all IMS-China members who voted!

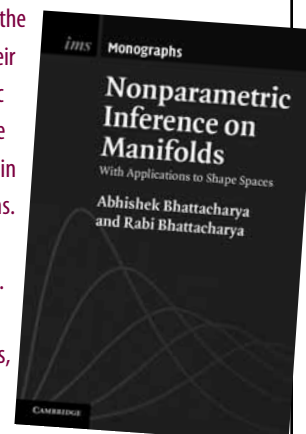
IMS Monographs 2: Nonparametric Inference on Manifolds, with Applications to Shape Spaces

by Abhishek Bhattacharya, ISI Kolkata, and Rabi Bhattacharya, University of Arizona

IMS members, claim your discount: **\$48.00** (was \$80.00) using this link:

http://www.cambridge.org/discountpromotion/?site_locale=en_US&code=IMSSERIES2

This book introduces in a systematic manner a general nonparametric theory of statistics on manifolds, with emphasis on manifolds of shapes. The theory has important and varied applications in medical diagnostics, image analysis, and machine vision. An early chapter of examples establishes the effectiveness of the new methods and demonstrates how they outperform their parametric counterparts. Inference is developed for both intrinsic and extrinsic Fréchet means of probability distributions on manifolds, then applied to shape spaces defined as orbits of landmarks under a Lie group of transformations—in particular, similarity, reflection similarity, affine and projective transformations. In addition, nonparametric Bayesian theory is adapted and extended to manifolds for the purposes of density estimation, regression and classification. Ideal for statisticians who analyze manifold data and wish to develop their own methodology, this book is also of interest to probabilists, mathematicians, computer scientists and morphometricians with mathematical training.



Terence's Stuff: Multiple Linear Regression, part 2

With this column, Terry Speed continues his exploration of multiple linear regression, looking at “why,” “how” and idol management.



I really like multiple linear regression (MLR), even though I think that it must be the most widely misused of all statistical methods. There are so many different reasons why we might use it, and there are so many variations on linear least squares, I feel that MLR can be seen as a microcosm of statistics as a whole. At a conference recently I heard a speaker discuss MLRs with 15–20 variables. He spoke of model complexity, of functional forms, of whether or not variables should be selected, and he discussed model (in)stability and resampling techniques for diagnosing and improving models. All without stating a reason for doing MLR!

Why *do* we run MLRs? Let me reel off a few possible responses before commenting on why I think asking “why” matters. To *summarize*. To *predict*. To *estimate* a parameter. To *attempt a causal analysis*. To *find a model*. I hope it is clear that these are different reasons.

If you concede this, then perhaps you will agree that going through the same moves with a data set (y, X) to produce the familiar estimates $\hat{\beta} = (X'X)^{-1} X'y$, and $\hat{\text{var}}(\hat{\beta}) = (X'X)^{-1} \hat{\sigma}^2$, and doing all the standard regression diagnostics (the “core” approach) is unlikely to be the right thing in any of these cases. Sharpening the question is just as necessary when considering regression as it is with any other statistical analysis. At the end we will want to assess how well we have answered our question, and in doing so, we’ll go far beyond the standard formulae, in different ways with different questions.

Think of the world of difference between using a regression model for prediction and using one for estimating a parameter with a causal interpretation, for example, the effect of class size on school children’s test scores. With prediction, we *don’t* need our relationship to be causal, but we *do* need to be concerned with the relation between our training and our test set. If we have reason to think that our future test set may differ from our past training set in unknown ways, nothing, including cross-validation, will save us. When estimating the causal parameter, we *do* need to ask whether the children were randomly assigned to classes of different sizes, and if not, we need to find a way to deal with possible selection bias. If we have not measured suitable covariates on our children, we may not be able to adjust for any bias.

What’s my point here? I would like to see multiple regression taught as a series of case studies, each study addressing a sharp question, and focussing on those aspects of the topic that are relevant to that question. Instead, what happens all too often, is that writers and instructors distil *all* uses of multiple linear regression down to the “core” mentioned above, and students come away not having seen the fascinating and important interplay between question, context, data and answer. It’s a “baby and bath-water” problem.

Who does it to my liking? I mentioned Mosteller & Tukey in my last piece on this topic, and once again I’m happy to say that they do a fine job on the different questions that lead us to MLR, with their own colorful terminology, e.g. regression to “set aside the effect of” a variable, to get the variable “out of the way,” or “regression as exclusion.” In their book *Mostly Harmless Econometrics: An Empiricist’s Companion*, Angrist and Pischke have a very nice chapter 3 entitled “Making Regression Make

Sense.” Near the beginning of their book, they say that, “the most interesting research in social science is about cause and effect, such as the effect of class size on children’s test scores.”

How do we run regressions? Overwhelmingly, the answer is by using least squares, justified by the Gauss-Markov theorem. In a characteristically brilliant, though at times challenging, 1975 book chapter, “After Gauss-Markov Least Squares, What?” Tukey deconstructs this theorem, and in so doing opens our eyes to the richness of our statistical world, in comparison with the poverty of the “core”. He views his task as “idol management.” After listing the seven “ifs” of the theorem, leading to the conclusion that the best estimate of any individual β or any linear combination of β ’s is to be had by “least squares,” Tukey questions each “if” in turn, and uses each “to point a direction in which to move a suitable distance away from our idol.” In the discussion which follows, we meet nonlinear least squares, “minimizing potential” vs “balance of forces”, “indirect and imperfect” measurements, instrumental variables, weighting and misweighting, robustness via iteratively reweighting, “insulation” and “transparency”, penalized regression and much more.

The beauty of Tukey’s approach to MLR is that it can be revisited at any time, and applied to other areas. Idol management should always be with us.

Tukey believed in “idol management.” That’s not the judges on this TV show...



IMS meetings around the world

IMS Annual Meetings, 2013 & 2014

IMS sponsored meeting

IMS Annual Meeting @ JSM 2013

August 3–8, 2013: Montréal, Canada

w <http://amstat.org/meetings/jsm/2013/>

JSM Program Chair: Bhramar Mukherjee

The meeting will be held at the Palais de congrès de Montréal, in Montréal, Québec, Canada. The theme for JSM 2013 is “Celebrating the International Year of Statistics.” Leading statistical societies have joined forces to declare 2013 the International Year of Statistics (<http://statistics2013.org/>) in order to promote the importance of our discipline to the broader scientific community, business and government data users, media, policymakers, employers, students, and the general public. As the largest gathering of statisticians in the world, the JSM embodies the spirit of the International Year, showcasing both fundamental contributions of statistical research and applications of statistics. The theme emphasizes the unique opportunity presented by the JSM program to highlight the power and impact of statistics on all aspects of science and society worldwide.

2013 also marks the 300th anniversary of the publication of Jacob Bernoulli’s *Ars Conjectandi* in 1713. In recognition of this, IMS and the Bernoulli Society are jointly sponsoring the *Ars Conjectandi* lecture; the speaker will be David Spiegelhalter.

KEY DATES: **Until Sept 6:** submit invited session proposals. **Oct 19 – Nov 19:** submit invited session abstracts. **Dec 3 – Feb 4:** submit abstracts, invited posters, IOLs, topic and regular contributed abstracts. **May 1:** register and reserve housing.

MontréalCanada
JSM2013

IMS sponsored meeting

2014 IMS Annual Meeting

July 7–11, 2014

Sydney, Australia

w TBC

The location for the 2014 IMS Annual Meeting has been selected as Sydney, Australia. Details will follow, but you can mark your calendars now!



At a glance:

*forthcoming
IMS Annual
Meeting and
JSM dates*

2013

IMS Annual Meeting

@ JSM: Montréal, Canada, August 3–8, 2013

2014

IMS Annual Meeting:

Sydney, Australia, July 7–11, 2014

JSM: Boston, MA, August 2–7, 2014

2015

IMS Annual Meeting

@ JSM: Seattle, WA, August 8–13, 2015

2016

IMS Annual Meeting:

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

Joint Statistical Meetings dates, 2013–2018

IMS sponsored meeting

JSM 2013: August 3–8, 2013, Montreal, Canada

w <http://amstat.org/meetings/jsm/2013>

IMS sponsored meeting

JSM 2014: August 2–7, 2014, Boston, USA

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

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/>

IMS co-sponsored meeting

**ISBA Regional Meeting and International Workshop/Conference
on Bayesian Theory and Applications (IWCBTBTA)****January 6–10, 2013****Varanasi, India****w** www.bhu.ac.in/isba

IMS Rep on Program Committee: Dipak Dey

The DST Centre for Interdisciplinary Mathematical Sciences, Banaras Hindu University, is organizing the ISBA Regional Meeting in conjunction with International Workshop/Conference on Bayesian Theory and Applications (IWCBTBTA) from January 6–10, 2013. The meeting is co-sponsored by the International Society for Bayesian Analysis (ISBA), the Indian Bayesian Society and the Indian Chapter of ISBA. A few tutorials will be offered on January 6–7. The afternoon of January 7 will have the Inaugural session of the ISBA Regional Meeting and IWCBTBTA. The main contributed and invited presentations will begin from January 8, 2013, with poster presentations each evening.

IMS co-sponsored meeting

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

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

IMS co-sponsored meeting

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

IMS Representative on Program Committee: Elizaveta Levina, Department of Statistics, University of Michigan

IMS co-sponsored meeting

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

2013 marks the 300th anniversary of the publication of Jacob Bernoulli's book, *Ars Conjectandi*, in 1713. A meeting has been organized to celebrate this: the "International Conference *Ars Conjectandi* 1713–2013" will be held October 15–16, 2013, in Basel, Switzerland.

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

ENAR, 2013–2015

IMS sponsored meeting

2013 ENAR/IMS Spring Meeting**March 10–13, 2013****Orlando, Florida, USA****w** <http://www.enar.org/meetings.cfm>

Hawks Landing Golf Club at the Orlando World Center Marriott Resort, venue for the ENAR/IMS Spring Meeting in 2013

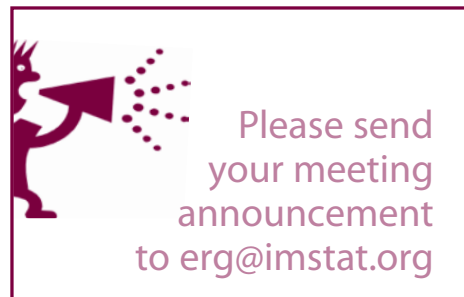
IMS sponsored meeting

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>**NEW**

More IMS meetings around the world

IMS co-sponsored meeting

Ninth Conference on Bayesian Nonparametrics

June 10–14, 2013

Amsterdam, The Netherlands

w <http://www.bnp9.win.tue.nl/>

e bnp9info@gmail.com

IMS Representative(s) on Program Committees: Subhashis Ghosal
The 9th Conference on Bayesian Nonparametrics will be held June 10–14, 2013, in Amsterdam, The Netherlands. The Bayesian Nonparametrics (BNP) conference is a biannual international meeting bringing together leading experts and talented young researchers working on applications and theory of nonparametric Bayesian statistics. It is an official section meeting of the Bayesian nonparametrics section of the International Society for Bayesian Analysis (ISBA) and is co-sponsored by the IMS.

The program committee of BNP9 invites submissions for contributed talks and posters from any area of Bayesian nonparametrics and related topics. See the abstract submission page. Deadline for submission: **October 15, 2012**.

Several speakers have been invited and have accepted to give a talk at BNP9, including four distinguished plenary lectures, from: David Dunson (Duke), Michael Jordan (Berkeley), Gareth Roberts (Warwick), and Judith Rousseau (Paris Dauphine). Other invited speakers so far include:

Eduard Belitser (Eindhoven)
Emily Fox (Pennsylvania)
Sasha Gnedin (London)
Peter Green (Bristol)
Jim Griffin (Kent)
Lancelot James (Hong Kong)
Bartek Knapik (VU Amsterdam)
Luis Nieto-Barjas (Mexico)
Sonia Petrone (Milano)
Silke Rolles (TU Munich)
Botond Szabo (Eindhoven)
Stephen Walker (Kent)

IMS co-sponsored meeting

9th Cornell Probability Summer School

July 15–26, 2013

Cornell University, Ithaca, NY, USA

w TBA

IMS Rep on Program Committees: Laurent Saloff-Coste

IMS co-sponsored meeting

Third Workshop for Women in Probability

October 14–16, 2012

Duke University, NC, USA

w www.math.duke.edu/~rtd/wwp12/WWP2012.html

The Third Workshop for Women in Probability will be held October 14–16, 2012, at Duke University (Sunday morning to mid-day Tuesday). The scientific program organized by Tai Melcher (Virginia) and Amber Puha (California State U, San Marcos) will feature talks by Janet Best (Ohio State); Alexandra Chronopoulou (UCSB); Cindy Greenwood (Arizona State); Alice Guionnet (ENS Lyon); Kay Kirkpatrick (UIUC); Nevena Marić (Missouri); Dana Randall (Georgia Tech); Amandine Veber (CMAP); Amy Ward (USC); and Jessica Zúñiga (San Francisco).

Women probabilists, especially young researchers and advanced graduate students, are encouraged to attend the workshop and participate in the poster session. An NSF grant will provide support for 25–30 young women. You do not have to be a US citizen. Preference will be given to individuals who can obtain matching funds from their advisor, and will receive \$500 for local expenses. However, we will also accept application for \$750 travel grant individuals who do not have access to matching funds. **Apply before September 1** on the conference web page above. This meeting is co-sponsored by the IMS. Funding for speakers is provided by the Cornell RTG in probability. If you have questions please contact the local organizers, Rick Durrett and Jonathan Mattingly.

IMS co-sponsored meeting

36th Conference on Stochastic Processes and their Applications

July 29 – August 2, 2013

University of Colorado, Boulder, USA

w <http://math.colorado.edu/spa2013/>

The week of SPA is especially busy in Boulder, and we **strongly recommend reserving rooms as early as possible**. Rooms are already being held under “SPA2013” at a number of hotels, details can be found at http://math.colorado.edu/spa2013/?page_id=21.

SPA2013 will feature the inaugural **Schramm Lecture**; and an IMS **Medallion Lecture** from Bálint Virág (University of Toronto). There will also be a Lévy Lecture by Gerard Ben Arous (Courant) and a Doob Lecture from Neil O’Connell (Warwick). Other invited lecturers are Zhen-Qing Chen (Washington); Ron Doney (Manchester); Hugo Duminil-Copin (Genève); Pablo Ferarri (Buenos Aires); József Fritz (Budapest); Tadahisa Funaki (Tokyo); Niels Jacob (Swansea); Vadim Kaimanovich (Ottawa); Jeremy Quastel (Toronto); Kavita Ramanan (Brown); Qi-Man Shao (Hong Kong); Amandine Veber (École Polytechnique); and Ofer Zeitouni (Minnesota & Weizmann).

Other meetings around the world

Spatial Statistics Conference

December 13–14, 2012

Miami, FL, USA

www.bus.miami.edu/ssc/

The School of Business Administration at the University of Miami is organizing a conference on Spatial Statistics. The Conference will be held at the Rosenstiel School of Marine and Atmospheric Science which is located on the beautiful Virginia Key, Florida. Junior Researchers are especially encouraged to participate and travel support will be provided pending availability of funding.

7th Meeting of the

Eastern Mediterranean Region International Biometric Society

April 22–25, 2013

Tel Aviv, Israel

<https://event.pwizard.com/ims/index.py?>

The conference will cover many topics of contemporary importance in biostatistics, biometry, and bioinformatics. The program will include pre-conference short courses, scientific sessions, plenary sessions, invited and contributed papers, poster sessions and an array of distinguished, internationally renowned speakers. The social program will include a reception, gala dinner in Jaffa preceded by a short guided walking tour, and a half-day trip to Jerusalem to experience the history, sights, sounds and flavors of the holy city.

Sequencing and Complex Traits: beyond 1000 Genomes

November 15–16, 2012, Harvard Medical School, Cambridge, MA

www.hsph.harvard.edu/research/pqg-conference-2012

Speakers: Mark Daly (keynote), Goncalo Abecasis (keynote), Richard Durbin (keynote), Nancy Cox, Magnus Nordborg, Jian Yang, Rasmus Nielsen, Kathryn Roeder, Shuan Purcell, David Reich, Itsik Pe'er, John Stamatoyannopoulos. The Program in Quantitative Genomics at the Harvard School of Public Health, jointly with the HSPH Department of Biostatistics and the Department of Biostatistics and Computational Biology at the Dana-Farber Cancer Institute, will host its sixth two-day conference. The conference will engage an interdisciplinary group of scientists including statistical geneticists, genetic epidemiologists, and clinicians in a discussion centered on three important topics:

- 1 *What do GWAS and sequencing studies tell about complex traits: is sequencing the solution to localizing missing heritability?*
- 2 *How should we design and analyze targeted, exome, and whole-genome sequencing studies? How do we choose among these? Should population-based, extreme-phenotype, or family-based sampling strategies be employed?*
- 3 *How do population genetics and functional genomics inform sequencing studies of complex traits? How do we incorporate these types of information in the design and analysis of sequencing studies?*

The conference schedule includes time for scientific presentations, as well as a poster session for submitted abstracts. Two abstracts for each of the three topics will be selected for **Stellar Abstract Awards** and 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.

2013 IISA Conference *Statistics, Science, and Society: New Challenges and Opportunities*

January 2–5, 2013, Chennai, India

<http://iisaconference.info/>

Abstract submission deadline: **October 1, 2012**. Plenary speakers: Nilanjan Chatterjee, N. Balakrishnan, Rajeeva L. Karandikar. Contact: Subrata Kundu [e kundu@gwu.edu](mailto:kundu@gwu.edu)

Statistics 2013: *Socio-economic and sustainable challenges and solutions*

December 28–31, 2013

CRRAO AIMSCS, India

www.statistics2013-conference.org.in

The C.R. Rao AIMSCS will be organizing a conference during the International Year of Statistics 2013. Topics for discussion include: econometrics, bioinformatics, data security and controlling terrorism, economic development, game theory, controlling corruption, big data and data mining, public education of statistics, sustainability (energy, water and food for the future).

Building Bridges:

Probability,
Statistics and
Applications

August 13–16, 2013

Braunschweig,
Germany

<https://www.tu-braunschweig.de/stochastik/tagungen/building-bridges>

The aim of this conference is to bring together leading researchers working in the strongly interconnected fields of probability, statistics and their applications. We will mark the 60th birthday of Claudia Klüppelberg. Topics covered include:

extreme value theory, insurance mathematics, Lévy processes, mathematical finance, random fields, risk management, statistics for stochastic processes, turbulence.

Claudia Klüppelberg's diverse scientific work is a fine example showing how important it is to look at both theory and applications in probability and statistics.

Bayesian Nonparametrics**September 17–21, 2012, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island****w** <http://icerm.brown.edu/sp-f12-w1>

Data-rich investigations need advanced tools for allowing data to inform and interact with models. Bayesian Nonparametrics is a rapidly growing subfield of statistics and machine learning that provides a framework for creating complex statistical models that are both expressive and tractable. Recent, successful applications of nonparametric Bayesian models across a variety of domains suggests that these models have the potential for wide use. The challenge of constructing and using models on very high dimensional or even infinite dimensional spaces creates many opportunities for fruitful interactions between mathematicians, statisticians and computer scientists. Areas of interest include prior construction, posterior inference, posterior asymptotics, algorithmic development, and practical applications.

Uncertainty Quantification**October 9–13, 2012, ICERM, Providence, Rhode Island****w** <http://icerm.brown.edu/sp-f12-w2>

Rapid growth in computational resources has heightened the expectation that scientific knowledge can indeed be a driver for societal well-being and betterment. At the same time, our ability to measure the natural and social world around has significantly increased, aided by technological development in sensors, the internet, and other modalities of communication. Science is thus faced, simultaneously, with a complex description of reality at an unprecedented resolution, and the possibility to describe this reality with mathematical models of increasing complexity. Probabilistic formulations of physical problems can be viewed as attempts to adapt rational procedures to this complexity, while tackling the conceptual challenges they inevitably present. As a testament to the significance of this confluence of mathematics, science, and technology, Uncertainty Quantification (UQ) is arguably one of the fastest growing sub-disciplines in mechanics.

The communities of computational science, stochastic analysis, and statistics have evolved largely along distinct paths. To forge ahead, however, in the direction of transformative scientific impact, requires symbiotic exchange and collaboration, which this workshop aims to achieve.

Monte Carlo Methods in the Physical and Biological Sciences**October 29 – November 2, 2012, ICERM, Providence, Rhode Island****w** <http://icerm.brown.edu/sp-f12-w3>

Monte Carlo methods are one of the main tools used to study the properties of complex physical, chemical and biological systems. Since their introduction in the late 1940s, these methods have undergone a remarkable expansion and are now used in many other fields, including statistical inference, engineering, and computer science. However, the design and theoretical understanding of Monte Carlo methods is still a challenging topic, especially for those problems where rare events play the key role in determining algorithm performance. The aim of the workshop is to bring together specialists in the application areas who understand the specific challenges posed by realistic problems and have developed sophisticated tools to tackle these problems, and mathematicians developing methods for algorithm analysis, abstraction, and optimization.

Performance Analysis of Monte Carlo Methods**November 28–30, 2012****ICERM, Providence, Rhode Island****w** <http://icerm.brown.edu/sp-f12-w4>

Monte Carlo methods have become increasingly important in Engineering and the Sciences. These application areas have posed challenges and opportunities in the analysis of modern Monte Carlo algorithms. The workshop's main focus is on: a) the mathematical techniques and aspects that have been key in the analysis of these algorithms, and b) the identification of techniques that are likely to play a role in future analysis.

AWM Workshop for Women Graduate Students and Recent PhDs**January 9–12, 2013****San Diego, California, USA****w** <https://sites.google.com/site/awmmath/programs/workshops/jmm-workshop>

The AWM Workshop talks will focus on number theory. Participants will be selected in advance of the workshop to present their work. Recent PhD's will join senior women in a special session on algebra and number theory where they will give 20-minute talks. The graduate students will present posters. Poster presenters will be chosen from all fields of mathematics. The workshop will also include a reception and a luncheon. Workshop participants will have the opportunity to meet with other women mathematicians at all stages of their careers.

12th Biennial Islamic Countries Conference on Statistical Sciences (ICCS-12)**December 19–22, 2012****Doha, Qatar****w** <http://iccs12.isoss.net/>

For further details on **extended deadlines**, submission process, registration, accommodation, please see the website above.

Winter Workshop on New Directions in Monte Carlo Methods
January 18–19, 2013

Gainesville, Florida

w <http://www.stat.ufl.edu/symposium/2013/index.html>

The workshop will focus on recent developments in Monte Carlo Methods. 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. Please visit the website for complete workshop details. For additional information, please contact Robyn Crawford **e** robyn@stat.ufl.edu with the subject line WINTER WORKSHOP 2013.

Statistics in Planning and Development: Bangladesh Perspective
December 27–29, 2012
Dhaka, Bangladesh

w TBC

Organizer: Bangladesh Statistical Association (BSA)

Contact: Mr A R Sikder, Secretary of BSA
e arsikderbbs@yahoo.com

Young Statisticians Conference 2013
February 7–8, 2013
Melbourne, Australia

w <http://ysc2013.com/>

The conference will feature two full days of presentations from delegates, four world-class keynote speakers, a careers session and a conference dinner. The expected attendance is 100–150 delegates, comprising postgraduate students and early-career professionals in statistics and data analysis from all over Australia. This is a biennial event hosted by the Statistical Society of Australia Inc.

Actuarial and Financial Mathematics Conference 2013: Interplay between Finance and Insurance

February 7–8, 2013

Brussels, Belgium

w <http://www.afmathconf.ugent.be/>

The focus will be on the interplay between finance and insurance; other topics in actuarial and financial mathematics are welcome. Researchers (PhD students and post-docs) as well as practitioners in these areas will be given the possibility of a 30-minute talk or a poster in the poster session.

7th International Workshop on Simulation
May 21–25, 2013
Rimini, Italy

w <http://www2.stat.unibo.it/iws/>

This international conference is devoted to statistical techniques in stochastic simulation, data collection and analysis of scientific experiments and studies representing broad areas of interest.

Short Course on Systems Genetics
October 28 – November 4, 2012
The Jackson Laboratory, Bar Harbor, ME

w <http://courses.jax.org/2012/systems-genetics.html>

12th Winter school on Mathematical Finance
January 21–23, 2013
Lunteren, The Netherlands

w <http://staff.science.uva.nl/~spreij/winterschool/winterschool.html>

Two mini-courses of 5 hours each will be delivered by Mike Giles (Oxford) and Xunyu Zhou (Oxford). Special invited lectures will be given by Pierre Collin-Dufresne (Columbia Business School), Ronnie Sircar (Princeton), and Agnes Sulem (Inria-Rocquencourt). Four short lectures will complete the programme.

Travel Grants for MCA2013, August 5–9, 2013 in Guanajuato, Mexico

w <http://www.mca2013.org/>

The American Mathematical Society has applied to the National Science Foundation (NSF) for funds to permit partial travel support for up to sixty US mathematicians attending the inaugural meeting of the Mathematics Congress of the Americas (MCA) that will take place August 5–9, 2013, in Guanajuato, Mexico. Subject to the award decision by the NSF, the Society is preparing to administer the selection process. Instructions on how to apply for support are available on the AMS website at <http://www.ams.org/programs/travel-grants/mca>. The application period will be **September 15 – October 31, 2012**. This travel grants program, if funded, will be administered by the *Membership and Programs Department, AMS, 201 Charles Street, Providence, RI 02904-2294*. For questions or more information, contact Steven Ferrucci **e** sxf@ams.org, **t** 800-321-4267, ext. 4113 or 401-455-4113.

See the website for further details of eligibility: <http://www.mca2013.org/>

XXX Jubilee International Seminar on Stability Problems for Stochastic Models
September 24–30, 2012
Svetlogorsk, Russia

w <http://www.ipiran.ru/conference/stabil2012/>

Main topics: Limit theorems and stability problems; Asymptotic theory of stochastic processes; Stable distributions and processes; Asymptotic statistics; Discrete probability models; Characterization of probability distributions; Insurance and financial mathematics; Applied statistics; Queueing theory and modeling information systems. This last topic will be discussed within the framework of the associated International Workshop “APPT+MS” (see website).

CAMBRIDGE

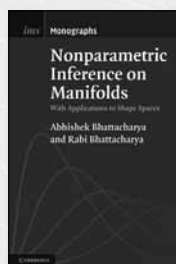
New Titles from Cambridge University Press!

*Institute of Mathematical
Statistics Monographs***Nonparametric Inference on
Manifolds**

With Applications to Shape Spaces

Abhishek Bhattacharya
and Rabi Bhattacharya

\$80.00: Hardback: 978-1-107-01958-4: 252 pp.

**Large-Scale Inference**Empirical Bayes Methods for
Estimation, Testing, and Prediction

Bradley Efron

\$70.00: Hardback: 978-0-521-19249-1: 276 pp.

**Mathematics of
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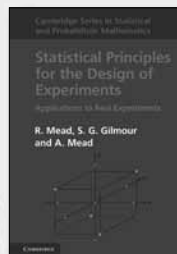
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Hong Kong



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See www.math.gatech.edu/resources/employment for more details and application instructions.

United States: New York, NY

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IMS meetings are highlighted in maroon with the  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

October 2012

October 8–12: Sønderborg, Denmark. Workshop on Geometry and Statistics in Bioimaging: Manifolds and Stratified Spaces **w** <http://csgb.dk/activities/2012/geostat/>

NEW **October 9–13:** ICERM, Providence, RI. Uncertainty Quantification **w** <http://icerm.brown.edu/sp-f12-w2>

 **October 14–16:** Duke University, NC, USA. Third Workshop for Women in Probability **w** www.math.duke.edu/~rtd/wwwp12/WWP2012.html

October 18: Silver Spring, MD. 2nd Annual Symposium on Large-Scale Inference **e** LargeData@s-3.com

October 28 – November 4: Bar Harbor, Maine, USA. Short Course on Systems Genetics **w** <http://courses.jax.org/2012/systems-genetics.html>

NEW **October 29 – November 2:** ICERM, Providence, RI. Monte Carlo Methods in the Physical and Biological Sciences **w** <http://icerm.brown.edu/sp-f12-w3>

November 2012

NEW **November 15–16:** Harvard Medical School, Cambridge, MA. Sequencing and Complex Traits: beyond 1000 Genomes **w** www.hsph.harvard.edu/research/pqg-conference-2012

NEW **November 28–30:** ICERM, Providence, RI. Performance Analysis of Monte Carlo Methods **w** <http://icerm.brown.edu/sp-f12-w4>

December 2012

December 2–7: Atlantic City, NJ, USA. 68th Annual Deming Conference on Applied Statistics **w** www.demingconference.com

NEW **December 13–14:** Miami, FL. Spatial Statistics Conference **w** www.bus.miami.edu/ssc/

December 15–17: Chandigarh, India 21st International Conference on Interdisciplinary Mathematics, Statistics and Computational Techniques (IMSCT 2012-FIM XXI) **w** <http://imsct2012.puchd.ac.in/index.php>

December 19–22: Doha, Qatar. 12th Islamic Countries Conference on Statistical Sciences (ICCS-12) **w** www.iccs12.isoss.net

December 24–25: Burdwan, West Bengal, India. Young Statisticians Meet: An International Conference **w** http://www.buruniv.ac.in/Notices/UBUR_2012032_NOT_WEBPAGE.pdf

NEW **December 27–29:** Dhaka, Bangladesh. Statistics in Planning and Development: Bangladesh Perspective **w** TBC

January 2013

NEW **January 2–5:** Chennai, India. 2013 IISA Conference Statistics, Science, and Society: New Challenges and Opportunities **w** <http://iisaconference.info/>

 **January 6–10:** Varanasi, India. ISBA Regional Meeting and International Workshop/Conference on Bayesian Theory and Applications (IWCBA) **w** www.bhu.ac.in/isba

NEW **January 9–12:** San Diego, CA. AWM Workshop for Women Graduate Students and Recent PhDs **w** <https://sites.google.com/site/awmmath/>

NEW **January 18–19:** Gainesville, Florida. Winter Workshop on New Directions in Monte Carlo Methods **w** <http://www.stat.ufl.edu/symposium/2013/index.html>

NEW **January 21–23:** Lunteren, The Netherlands. 12th Winter school on Mathematical Finance **w** <http://staff.science.uva.nl/~spreij/winterschool/winterschool.html>

February 2013

NEW **February 7–8:** Melbourne, Australia. Young Statisticians Conference 2013 **w** <http://ysc2013.com/>

NEW **February 7–8:** Brussels, Belgium. Actuarial and Financial Mathematics Conference 2013: Interplay between Finance and Insurance **w** <http://www.afmathconf.ugent.be/>

March 2013

 **March 10–13:** Orlando, Florida. 2013 ENAR/IMS Spring Meeting. **w** <http://www.enar.org/meetings.cfm>


March 12–14: Brisbane, Australia. NatStats 2013: "A better informed Australia: the role of statistics in building the nation" **w** <http://www.nss.gov.au/blog/natstats.nsf>

April 2013

NEW **April 22–25:** Tel Aviv, Israel. 7th Meeting of the Eastern Mediterranean Region International Biometric Society **w** <https://event.pwizard.com/ims/index.py?>

International Calendar *continued*

May 2013

 May 21–25: Rimini, Italy. 7th International Workshop on Simulation **w** <http://www2.stat.unibo.it/iws/>

June 2013

June 6–9: Toruń, Poland. German-Polish Joint Conference on Probability Theory and Mathematical Statistics **w** <http://www.gpps.umk.pl/>

June 10–12: Stockholm, Sweden. 4th Nordic-Baltic Biometric Conference (NBBC13) **w** <http://nbbc13.org/>

 June 10–14: Amsterdam, The Netherlands. 9th Conference on Bayesian Nonparametrics **w** <http://www.bnp9.win.tue.nl/>

July 2013

July 8–12: ShangHai, China. 2013 Extreme Value Analysis conference **w** <http://eva.fudan.edu.cn>

  July 15–26: Cornell University, Ithaca, NY. 9th Cornell Probability Summer School **w** TBA


July 20–25: Budapest, Hungary. 29th European Meeting of Statisticians (EMS2013) **w** <http://www.ems2013.eu>


 July 29 – August 2: University of Colorado, Boulder, USA. 36th Conference on Stochastic Processes and their Applications **w** <http://math.colorado.edu/spa2013/>

August 2013

 August 3–8: Montréal, Canada. IMS Annual Meeting at JSM2013. **w** <http://amstat.org/meetings/jsm/>

August 4–10: XVII Brazilian School of Probability (XVII EBP), Rio de Janeiro State, Brazil (exact location TBA). **w** <http://www.im.ufrj.br/ebp17/> (under construction)

 August 5–9: Guanajuato, Mexico. Mathematics Congress of the Americas **w** <http://www.mca2013.org/>

 August 13–16: Braunschweig, Germany. Building Bridges: Probability, Statistics and Applications **w** <http://www.tu-braunschweig.de/stochastik/tagungen/building-bridges>

August 24–31: Hong Kong. 59th ISI World Statistics Congress **w** www.isi2013.hk

October 2013

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

December 2013

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

 December 28–31: CRRAO AIMSCS, India. Statistics 2013: **w** www.statistics2013-conference.org.in

March 2014

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

July 2014

 July 7–11: Sydney, Australia. 2014 IMS Annual Meeting. **w** TBC

 July 28 – August 1: Buenos Aires, Argentina. 37th Conference on Stochastic Processes and Applications **w** TBC


August 2014

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

August 2015

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


March 2016

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

July 2016

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

July 2017

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

July 2018

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

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IMS Bulletin

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

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6: September	August 15	September 1	September 15
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