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March 2010

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Former Presidents' Interview

Two former IMS Presidents were both plenary speakers at the IMS-sponsored conference in Visakhapatnam, India, as reported on page 5. Following the conference, S.R.S. Varadhan asked C.R. Rao a series of questions:

How did you become interested in statistics? Seventy years ago it was not a well-known subject.

Seventy years ago I completed my university education with a Master's degree in mathematics. It was war time and it was difficult to get a job except in the military as combative and support personnel. I went to Calcutta for an interview, for a job in the military, but was disqualified as too young. By accident I met one Subramanyam who came from Bombay to take a one year training course in statistics at ISI. He said there were good opportunities for those who took this course. He also showed me a research paper he was writing using statistics. I could understand what he was trying to do as I had taken a course in probability based on Uspensky's book in my master's course in mathematics. I thought that I could do research of the type Subramanyam was doing. He took me to ISI and showed me the calculating machines. I returned to Vizag and discussed it with my mother, who said she could raise the Rs.30 for my expenses in Calcutta and pay the tuition fee. With this monetary support I went to Calcutta on January 1, 1940, and was admitted to the one-year training program.

So my entry into statistics was by accident, but I found the subject fascinating and started doing research into the design of experiments, which was the main subject of research at ISI at that time. R. C. Bose and K. R. Nair were working in this area doing collaborative research and publishing papers. The research work in design of experiments involving combinatorial mathematics led me to introduce new designs called orthogonal arrays which play an important role in industrial experimentation.

Mahalanobis was the boss, but I did not have an opportunity until 1943 to meet him. He heard that I was a potential research worker and offered me Rs.75 per month to work as a "technical worker" at the ISI. I had good offers elsewhere but somehow I continued at ISI. Mahalanobis assigned to me the task of analyzing anthropometric data collected from a large number of people from the state of Uttar Pradesh

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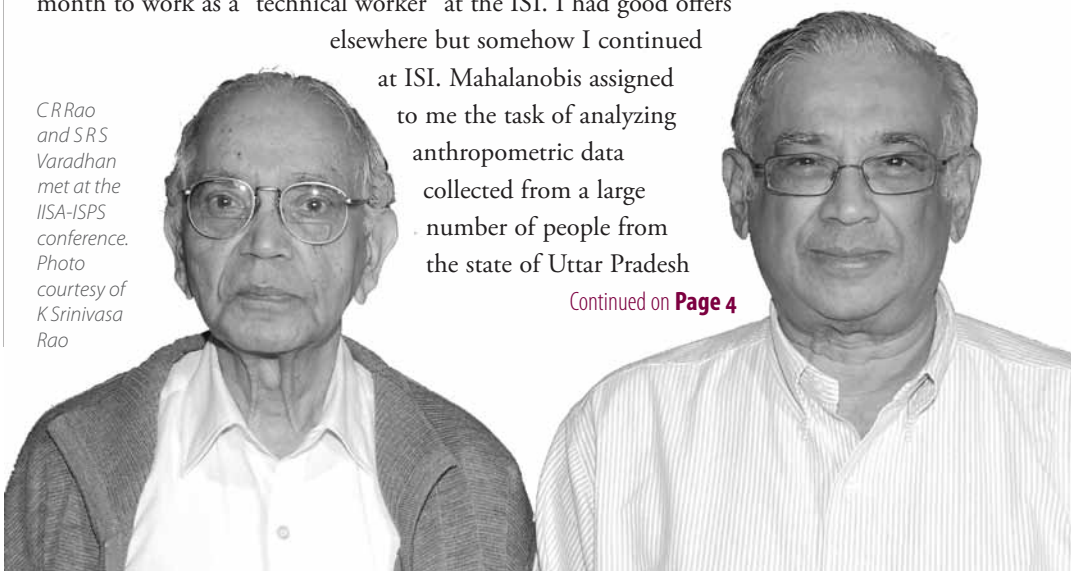

C R Rao and S R S Varadhan met at the IISA-ISPS conference. Photo courtesy of K Srinivasa Rao

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Executive Committee

IMS members' news

Cornell University Department of Statistical Science Distinguished Alumni Award

The Department of Statistical Science (DSS) at Cornell University instituted a Distinguished Alumni Award in 2009 to honor the many outstanding Cornell alumni who have made influential, far-reaching contributions to the field of statistics.

David Ruppert (left) presents the award to Grace Wahba

The inaugural recipient of this award is Grace Wahba, the IJ Schoenberg-Hilldale Professor of Statistics at the University of Wisconsin at Madison. Grace received a BA in Mathematics from Cornell. The Distinguished Alumni Award is one of many awards and honors that Grace has received. These honors include membership in the National Academy of Sciences, achieving the rank of Fellow in five major societies (including IMS and ASA), the Elizabeth Scott Award (COPSS), the Gottfried E. Noether Senior Researcher Award, an Honorary DSc from the University of Chicago, the first Emanuel and Carol Parzen Prize for Statistical Innovation [*see below for the latest recipient*], the 2003 Wald Lectureship, and numerous others.

Grace presented her award seminar, "Examining the Relative Influence of Familial, Genetic and Covariate Information in Flexible Risk Models," on October 21, 2009, at the DSS colloquium. David Ruppert introduced Grace and presented her with a plaque at the start of her lecture.

Any person who has received a bachelors, masters or PhD degree from Cornell in any field is considered to be eligible for this award. Nominations for future awards should be send to David Ruppert (dr24@cornell.edu).

Bernard Silverman appointed UK Home Office Chief Scientific Adviser

Professor Bernard Silverman has been appointed as the new Chief Scientific Adviser to the Home Office, the UK government department responsible for immigration control, security and order. Bernard, an IMS Fellow and former IMS President, is Professor of Statistics at the University of Oxford and a Fellow and member of Council of the Royal Society. He was Master of St. Peter's College, Oxford, from 2003–09, and before that Professor of Mathematics at the University of Bristol. He is the President of the Royal Statistical Society, an office he will relinquish to take up work at the Home Office on 1 April.

The Home Office Permanent Secretary, Sir David Normington, said, "This is a vital role providing us with the highest quality scientific advice for our work on crime, policing, counter-terrorism and immigration. Professor Silverman is highly respected and experienced in his field of mathematics and statistics."

Bernard said he was "delighted" with the appointment. "I am excited by the opportunity to be involved in such a broad range of policy areas and subjects," he added.

The Chief Scientific Adviser provides high quality and timely scientific advice to Ministers and senior officials, which helps to shape Home Office work across a broad range of areas, which include understanding changing crime trends or drivers of migration, improving the way biometrics can be used to protect identity, and strengthening the response to the threat from terrorism.

Roger Koenker awarded 2010 Parzen Prize

Texas A&M University's Department of Statistics will proudly award the 2010 Emanuel and Carol Parzen Prize for Statistical Innovation to Roger Koenker (McKinley Professor of Economics and Professor of Statistics at the University of Illinois) in honor of his significant innovations in statistical theory that have transformed practice by the creation of methods and software for conditional quantile regression and L_1 estimation which may be of more practical interest than conditional mean functions estimated by classical regression.

The plaque awarding the Parzen Prize to Roger Koenker reads: "For outstanding and influential research contributions in Statistical Science and Economics; for pioneering and expositing quantile regression: theory, computation, real data applications; for global leadership as a mentor and research on diverse statistical methods: regularization, time series modeling, density estimation".


Roger Koenker

Roger Koenker is an influential educator, author, journal editor, applied economist, and collaborator in research with scientists in numerous fields. He is a Fellow of IMS, ASA and the Econometric Society. Among his significant honors is the 2010 H. O. Hirschfeld (Hartley) Lecturer in Berlin. He has a witty style of writing, exemplified by his book *Quantile Regression*, and papers such as "The Gaussian Hare and the Laplacian Tortoise: Computability of Squared-Error vs. Absolute Error Estimators". Professor Koenker received his PhD in Economics from the University of Michigan in 1974; he has been Professor at the University of Illinois of Economics since 1983, and of Statistics since 1992.

Professor Koenker's Parzen Prize Award Ceremony lecture, entitled *"Beyond the Average Man: Additive Models for Conditional Quantiles,"* is on March 24, 2010, at 4:00pm in the Stephen Hawking Auditorium, Mitchell Physics Building at Texas A&M University. Please contact Elaine Washington (elaine@stat.tamu.edu) or see www.stat.tamu.edu, for details.

Shelemyahu Zacks honored with Festschrift

IMS Fellow Professor Shelemyahu Zacks was honored recently with a conference and a Festschrift. *Recent Advances in Theory and Applications of Statistics*, edited by Prof Nitis Mukhopadhyay, was published in two issues of *Communications in Statistics—Theory and Methods*, 2009, Vol. 38, nos. 16& 17. This Festschrift

Herman Chernoff article in *Guardian* newspaper

Britain's *The Guardian* newspaper column, Improbable Research, featured the work of IMS Fellow Herman Chernoff recently. The 26 January article by Marc Abrahams (http://www.guardian.co.uk/education/2010/jan/26/smiley-face-statistical-analysis), called "Smile! You too can understand statistics," drew on Chernoff's 1973 *JASA* paper, "The Use of Faces to Represent Points in *K*-Dimensional Space Graphically". In the paper Chernoff proposed a method of rendering data sets as drawings of human faces. Abrahams called the paper "visually goofy, rather than arid" but noted that the notion has not been widely adopted. Abrahams is the organiser of the Ig Nobel prize, "research that makes people laugh, then think": see http://improbable.com/ig/

IMS Editors

IMS Journals and Publications

Annals of Statistics: Peter Bühlmann and Tony Cai
http://imstat.org/aos UPDATED

Annals of Applied Statistics: Bradley Efron, Stephen Fienberg, Michael Newton, Michael Stein, Karen Kafadar & Samuel Kou UPDATED
http://imstat.org/aoas

Annals of Probability: Ofer Zeitouni
http://imstat.org/aop

Annals of Applied Probability: Andrew Barbour
http://imstat.org/aap

Statistical Science: David Madigan
http://imstat.org/sts

IMS Lecture Notes – Monograph Series: Anirban DasGupta
http://imstat.org/publications/lecnotes.htm

IMS Collections: Anirban DasGupta
http://imstat.org/publications/imscollections.htm

NSF-CBMS Regional Conference Series in Probability and Statistics:
http://imstat.org/publications/nsf.htm

IMS Co-sponsored Journals and Publications

Electronic Journal of Statistics: David Ruppert UPDATED
http://imstat.org/ejs

Electronic Journal of Probability: Bálint Tóth
http://www.math.washington.edu/~ejpecp

Electronic Communications in Probability: Timo Seppäläinen
http://www.math.washington.edu/~ejpecp/ECP/index.php

Current Index to Statistics: George Styan
http://www.statindex.org

Journal of Computational and Graphical Statistics: David van Dyk
http://www.amstat.org/publications/jcgs

Statistics Surveys: Lutz Dümbgen UPDATED
http://imstat.org/ss

Probability Surveys: Geoffrey Grimmett
http://imstat.org/ps

IMS Supported Journals

Annales de l'Institut Henri Poincaré (B): Alice Guionnet
http://imstat.org/aihp

Bayesian Analysis: Herbie Lee UPDATED
http://ba.stat.cmu.edu

Bernoulli: Richard Davis UPDATED
http://isi.cbs.nl/bernoulli

Brazilian Journal of Probability and Statistics: Silvia Ferrari
http://imstat.org/bjps

IMS Affiliated Journals

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

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

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Interview: C. R. Rao, by S. R. S. Varadhan

Continued from **Cover**

using Mahalanobis distance.

In 1946 Mahalanobis received a cable from J. Trevor, an anthropologist at Cambridge University, asking him to send someone from ISI to analyze measurements on 800-year-old skeletons brought from Africa. Mahalanobis selected me to go to Cambridge, where I was employed in the museum of archeology and ethnology at Cambridge University on £30 a month. Mahalanobis also got me admission to King's College at Cambridge, where he stayed when he was studying in Cambridge. Fisher was in Cambridge. He agreed to be my thesis advisor, provided I worked in his genetics lab where he was mapping the chromosomes of mice.

Photo by Teja Rao

Raghu Varadhan (left) interviewed C R Rao.

I was fully occupied for two years working in the museum and Fisher's lab. In two years I managed to complete the work which led to the publication of the book, *Ancient Inhabitants of Jebel Moya*, authored by J. Trevor, R. Mukherji (who helped on the anthropological aspects) and myself, published by Cambridge University Press. At the same time I wrote my PhD thesis based on the new methodology developed to analyze measurements on bones. I returned to Calcutta in the summer of 1948.

You worked closely with both Fisher and Mahalanobis. They were strong and nettlesome personalities. How did you find your interactions with them?

Fisher was accessible to me any time I wanted to see him. I did the work he assigned to me and wrote some papers on mapping of chromosomes, locating genes, and distances between their locations. I also took some courses in genetics, to gain enough knowledge to be able to give courses at ISI and guide research scholars in genetics. Fisher had a bad temper, but there was no occasion when I was the victim.

Mahalanobis, who was known as the Professor, wanted me to work in ISI although I had attractive offers of professorship from universities and from the UN. He offered me an Associate Professorship when I returned from Cambridge. R. C. Bose and S. N. Roy were made professors under a new grant received from the government, but left for the US without informing the Professor and accepted professorships at University of North Carolina. He didn't want to lose me. He offered me a professorship.

It was not easy to work with the Professor. We used to quarrel often, but he gave me free rein in developing courses and research in statistics. He knew it would be difficult to replace me.

In spite of some problems I stayed at the ISI since it gave me opportunities to develop statistics in India. I also helped the Professor in establishing the Central Statistical Organization in Delhi and a network of statistical organizations in the States. It was hard work, requiring up to eight hours of my time every day. India now has a good national statistical system. I was at ISI for 40 years.

Were you able to achieve what you hoped for as Director of ISI?

Judging from the compliments I have received, the answer may be yes. Soon after I returned from Cambridge, I suggested research courses leading to PhD. D. Basu was the first scholar recruited in this program. In the fifties I supervised five or six scholars at a time. By the time Varadarajan, you, and others came, you were able to manage by yourselves. I had the satisfaction of guiding about 50 PhD students, who in turn produced about 300 PhDs.

Statistics as a subject has changed a lot over the years. What is the role of mathematics in statistics today?

The character of statistics has changed over time with new problems requiring new methodology and enormous computing power. Mathematics and probability are still needed to develop models to fit the data. I believe statistics will be the science and technology of the future for acquiring data, extracting the information and hidden patterns contained in data, and taking optimum decisions.

As you look back what do you think is your best work, and is there anything you would have done differently?

There are a few results in the paper published in 1945, when I was 25, which received wide recognition and led to considerable research on estimation and the use of differential geometric methods in statistics. Some later results also received applications. But my best contribution, of which I am most proud, is the motivation I provided to my students, resulting in fundamental contributions made by them to statistical theory and applications.

In the confusion that prevailed in the ISI and the country, I lost good chances of making certain contributions, which I regret. Well! Missed opportunities are a part of life. On the whole the statistical community has treated me well and I have no complaints.

Indian conference report

IISA and ISPS hold a joint conference in Visakhapatnam, India

K.S. Rao, S. Rao Jammalamadaka, Sastry Pantula, and R.C. Tiwari report: The International Indian Statistical Association (IISA) held its eighth annual joint statistics meetings (January 4–8, 2010) at Andhra University, Visakhapatnam, India. For the first time, the meetings were jointly held with the Indian Society for Probability and Statistics (ISPS) and this international conference on *"Statistics, Probability, Operations Research, Computer Science and Allied Areas"* was sponsored by a host of other organizations, including the IMS. The meetings were very well attended by statisticians and probabilists from all around the world, and especially attracted many young statisticians. In all 512 delegates, including 30 students, attended the conference. There were 142 delegates from outside India. There were six plenary sessions, 48 special invited sessions, 39 invited sessions and four sessions on student paper competitions. The plenary speakers were Professors C. R. Rao, S. R. S. Varadhan [*see interview on cover*], S. Rao Jammalamadaka, Robert Elston, J. L. Narayana, and B. L. S. Prakasa Rao. Professors N. Balakrishnan and C. Umashankar chaired the program committees for IISA and ISPS, respectively, and put together an excellent program (http://www.iisa-isps2010.org/PROGRAMME.php) that covered theoretical frontiers of statistics and probability, and also sessions to excite the next generation of scientists.

Dancers in the cultural program

Focus on younger statisticians came across well in various sessions of the conference. Professor J. L. Narayana made a passionate plea for appropriate critical thinking and statistical training for the next decade. These themes were continued is sessions such as *Some emerging issues in clinical trials, Accelerating pharmaceutical development, Use of Statistics in pharmaceutical industry, Statistics in Agriculture* and *Statistics as a profession.*

There were also competitions for the Nair Young Statistician Award and M.S. Project presentation award. IISA also presented Young Researchers Awards to Dr. P. G. Sankaran, Cochin University of Science and Technology in the Statistical Theory category and to Dr. Ranjan Maitra, Iowa State University, in Methods and Applications. The best student paper presentation awards for Theory was given to Rejeesh John of Cochin University of Science and Technology, and for Methods and Applications to Ms. C.L. Usha of Al-Ameer College of Engineering and IT, Vizag.

A general body meeting of IISA was held at the conference site on January 5, 2010, where IISA recognized Professors N. Balakrishnan and Kirti Shah with IISA Service Awards, and Professor J.K. Ghosh with IISA Lifetime Achievement Award. Proposals from several universities for hosting future conferences of IISA jointly with ISPS and ISA (Indian Statistical Association) in India were discussed and the Department of Statistics, University of Pune, is being considered as a possible host for the IISA-ISPS-ISA joint meeting at Pune in December 2012 or January 2013.

In addition, the conference had two excellent cultural programs and also felicitated Professors C.R. Rao, S. Rao Jammalamadaka, J.L. Narayana, Sastry Pantula, P. Rajasekhar Reddy and R.C. Tiwari. Professor K.S. Rao and his colleagues at Andhra University were wonderful hosts, and the conference went smoothly. Participants enjoyed the beautiful setting, with the beach on one side and Kailasagiri hills on the other. The 965 photographs are available at http://picasaweb.google.com/ksraoau

The 9th annual IISA conference will be held April 21–24, 2011 at North Carolina State University, Raleigh, NC. Please contact Professor Ghosh (ghosh@stat.ncsu.edu) with any of your suggestions, and make it also a very successful conference!

C.R. Rao on IMS's 75th birthday

I became a member of IMS in 1956, was elected a Fellow in 1958 and was president during 76–77, the first person to be elected as president from outside USA.

I have great pleasure in sending my greetings to IMS on its 75th anniversary, which in India we call Platinum Jubilee. IMS is the most prestigious statistical society in the world. It played a major role through its journals, the Annals of Mathematical Statistics *and* Annals of Probability*, and annual conferences to the rapid growth of statistical theory and its applications in all areas of human endeavor. The statistical community is grateful to the founders of IMS and I look forward to its major role in the development of statistics as a major scientific discipline and knowledge-based technology in the 21st century.*

Obituary: Miguel Angel Arcones

1963–2009

Miguel Arcones celebrating New Year's Eve 2007 at the Rockefeller Center

Miguel Angel Arcones, 46, Professor of Mathematical Sciences at Binghamton University, died on December 30, 2009, after a long battle with cancer. A native of Segovia, Spain, Arcones began his graduate studies in the US in 1987 and earned his PhD in 1991 from the CUNY, working with Evarist Giné. After several postdoctoral appointments, Miguel joined the faculty of Binghamton University in 1998. In spite of periods of illness and hospitalization, he carried out his duties as a teacher and scholar with determination and grace, and he distinguished himself in both. He was well known for the depth and breadth of his research and was an elected member of the ISI and a Fellow of the IMS. He was highly appreciated by his students for his passion for the discipline and for his devotion to their learning. While serving as a Wylie Instructor at the University of Utah early in his career, he received an outstanding instructor award. Later, he enthusiastically served as the faculty mentor of the Mathematics Club at Binghamton University. He was the driving force behind the establishment of a thriving actuarial degree program at BU.

Miguel's research interests and achievements were impressive, both broad in range and marked by conceptual and technical sophistication. His work in probability theory includes notable contributions to the theory of U processes, limit theory under dependence conditions and large deviations theory. Particularly influential were his series of papers published in 1993–4 on the asymptotic theory of U-processes, his celebrated 1994 paper on the limit distribution of functionals of stationary sequences of Gaussian vectors, and his definitive treatment, in 2003–4, of the large deviation principle for stochastic processes.

His work in mathematical statistics was equally broad, including contributions to bootstrap theory, the asymptotics of U-Statistics and M-estimators, the Bahadur-Kiefer representation in a wide array of statistical contexts and order-restricted inference in Reliability. His contributions to the theory of U-statistics, beginning with his 1992 *Annals of Statistics* paper on bootstrapping U-Statistics, and including subsequent papers on large deviations, inequalities, the LLN, the CLT and the LIL for U-Statistics, were especially notable. He also wrote a diverse stream of research papers M-estimator asymptotics. His contributions to reliability were focused on constrained estimation of a survival function. His work on estimation under a uniform stochastic ordering constraint appeared in the *AoS* in 2000, and his work on estimation under a "stochastic precedence" constraint was published in *JASA* in 2002.

For seven years, Miguel served as an Associate Editor for *JASA*'s Theory and Methods Section. The Editors he served for will readily attest to the outstanding service he rendered in this capacity. His AE reports were, without exception, timely and thorough, always containing insightful commentary on the reviews he commissioned and always including an independent analysis that added value. Additional evidence of the generosity of his professional service is the fact that he published over 130 articles in *Mathematical Reviews*.

He was the founding Editor of the *International Journal of Statistics and Management Systems* and nurtured the fledgling journal for its first four years. His high standards and breadth of expertise are readily apparent from the volumes of the *IJSMS* that he saw through to publication. He passed away just weeks after having participated in the search for his replacement.

Miguel Arcones was a gentle giant in the statistical sciences, shy and sometimes unnoticeable in social settings, yet animated, stimulating and highly creative in his professional interactions. To his research visitors, he was a warm and gracious host. His colleagues and collaborators will not soon forget his generous nature, the excitement that he felt—and shared—when thinking about research questions, his sense of humor and hearty laugh, and the friendship that he offered so fully and sincerely. His premature passing is a great loss to our discipline. While his work will continue to influence students and researchers in Probability and Statistics for years to come, the role he played in the lives of his friends, students, colleagues and collaborators is irreplaceable. He is a man who left a strong positive imprint, both personally and professionally. May he rest in peace.

Written in memory of Miguel by
Evarist Giné,
David Mason,
Francisco Samaniego
and Anton Schick

Seeking more support for arXiv.org

Cornell University Library proposes collaborative business model to change arXiv funding structure

In a move to expand support for sustaining arXiv, Cornell University Library is broadening the funding base for the online scientific repository. Nearly 600,000 e-prints — research articles published online in physics, mathematics, statistics, computer science and related disciplines — now reside in arXiv, which is an open information source for hundreds of thousands of scientific researchers.

ArXiv will remain free for readers and submitters, but the Library has established a voluntary, collaborative business model to engage institutions that benefit most from the resource.

"Keeping an open-access resource like arXiv sustainable means not only covering its costs, but also continuing to enhance its value, and that kind of financial commitment is beyond a single institution's resources," said Oya Rieger, Associate University Librarian for Information Technologies. "If a case can be made for any repository being community-supported, arXiv has to be at the top of the list."

The 200 institutions that use arXiv most heavily account for more than 75 percent of institutional downloads. Cornell is asking these institutions for financial support in the form of annual contributions, and most of the top 25 have already committed to helping arXiv.

Institutions that have already pledged support include: California Institute of Technology; University of California, Berkeley; University of Cambridge (UK); CERN - European Organization for Nuclear Research (Switzerland); CNRS - Centre National de la Recherche Scientifique (France); Columbia University; DESY - Deutsches Elektronen-Synchrotron (Germany); Durham University (UK); ETH Zurich - Eidgenössische Technische Hochschule Zürich (Switzerland); Fermilab; Harvard University; University of Illinois at Urbana-Champaign; Imperial College London (UK); Los Alamos National Laboratory; Massachusetts Institute of Technology; Max Planck Society (Germany); University of Michigan; University of Oxford (UK); University of Pennsylvania; Princeton University; SLAC National Accelerator Laboratory; and Texas A&M University.

"We are delighted that so many others have already stepped forward to share the cost of arXiv, and that even more are considering it," said Anne R. Kenney, Carl A. Kroch University Librarian at Cornell. "It is heartening to see other institutions show their commitment to sustaining this eminent resource, which is used by scientists around the world."

"ArXiv is a vital resource for scholarly communication on a global scale for researchers and students across numerous disciplines. It is essential that the institutions whose users contribute to the database and consume its content provide an appropriate level of financial support," said James G. Neal, Vice President for Information Services and University Librarian at Columbia University.

The proposed funding model is viewed as a short-term strategy, and the Library is actively seeking input on a long-term solution. Currently, Cornell University Library supports the operating costs of arXiv, which are comparable to the costs of the university's collection budget for physics and astronomy. As one of the most influential innovations in scholarly communications since the advent of the Internet, arXiv's original dissemination model represented the first significant means to provide expedited access to scientific research well ahead of formal publication.

Researchers upload their own articles to arXiv, and they are usually made available to the public the next day. ArXiv, founded by physics professor Paul Ginsparg, has about 400,000 users and serves more than 2.5 million article downloads per month. Its 101,000 registered submitters live in nearly 200 countries.

ArXiv is interconnected with many other scholarly information resources. These include the INSPIRE system being developed by supporting high-energy physics laboratories CERN, DESY, Fermilab and SLAC, as well as the Astrophysics Data System at Harvard University, another supporting institution.

For details about the operating principles of the new structure, visit the FAQ at http://arxiv.org/help/support/faq. For questions about supporting arXiv, contact consortia representatives or the arXiv office at Cornell University Library at support@arxiv.org.

NSF award to arXiv

An article in The Scholarly Kitchen noted that the arXiv "has received a three-year, $883,000 grant from the National Science Foundation, thanks to federal stimulus money from the American Recovery and Reinvestment Act." (http://scholarlykitchen.sspnet.org/2009/11/23/arxiv-receives-stimulus-grant). The grant description is at http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0926550.

IMS support for arXiv

As you probably know, IMS encourages all members to post their articles in a preprint format on arXiv. More information about this, and details of support offered, is available in an article at http://imstat.org/publications/arxiv.html

Standards for US K–12 Mathematics Education

Jim Landwehr, Director of Data Analysis Research at Avaya Labs, Basking Ridge, NJ, reports from a forum on K–12 [Kindergarten to 12th Grade, i.e. primary and secondary school] mathematics education:

Last October I had the privilege and pleasure of representing IMS at a special "Forum on the Content and Assessment of School Mathematics" convened by the Conference Board of the Mathematical Sciences (CBMS, of which IMS is one of 17 member societies). The topic had to do with K–12 educational reform in the USA through evolving Common Core Standards documents. Such standards are intended to define the knowledge and skills students should have throughout the grade levels so as to be prepared to succeed in college or the workforce upon high school graduation.

The big picture is that statistics and probability are an increasing part of the conversation around curriculum and pedagogy for K–12 mathematics education. Including and emphasizing these topics are supported by many of the players but by no means everybody. I believe that these educational reform issues are important for USA-based members of our profession to be aware of and to participate in as opportunities arise.

In this note I'll provide my personal reactions to the forum, the standards as currently drafted, and an update on some of the activities since October 2009.

First, a brief word for IMS members outside the US who may wonder why any of this is an issue in the first place. Many countries have national standards and national control of their educational system, but the structure and politics of US K–12 education has a strong history of local control and financing and resistance to federal control and standards. Over the last 25 to 50 years or so, the 50 states have exerted increasing influence and funding. What with the generally mediocre performance of US K–12 students in international assessments, there have been increasing pressures for more national attention, common standards, and more federal funding though not direct control.

Turning to the forum, I found it to be a worthwhile and interesting event and I was personally glad to participate. While some of the CBMS organizations may end up taking a position on the standards documents (or parts of them), that's probably not a natural activity for IMS. I do feel, however, that it is good for IMS to be "at the table" for such things.

Without getting into a 25-year history of attempts at K–12 mathematics reform in the US and differing views and proposals concerning the content and desirability of establishing some "mathematics standards" on what students should know and be able to do, and the "math wars" among different parts of the US mathematics and mathematics education communities disagreeing on many things, here's what's going on now. Over the last year or so there has been an effort led by the National Governors' Association and the Council of Chief State School Officers to develop a Common Core State Standards document for mathematics (and separately for English and probably later for science and other fields). Almost all of the states seem to have agreed in principle to go along with what emerges, meaning that these standards are likely to matter and have an impact beyond the existing standards that exist in many states and are of uneven quality and impact. These two organizations commissioned a broad, high-quality group to produce draft standards, obtain feedback, make final recommendations, etc. This writing group asked CBMS to provide feedback from the mathematics community about the document, the process, what it's going to take ultimately to make effective changes, and so on. These topics were the focus of the forum.

Moreover, as part of the American Recovery and Reinvestment Act of 2009 (ARRA, the economic stimulus bill), the Department of Education has around $4.5B (yes, *billion*) or so of new money over the next year or two and is looking at this process in part for guidance on how to spend it and distribute it among the states. That is, more money may go to states that show they are addressing the standards and students are making progress against them. This is part of the Obama Administration's "Race to the Top" educational initiatives. That's another reason that the current reform efforts might have more impact than other efforts over the last generation or two have had: a major amount of money may be allocated around it.

So, what's in the standards and are they trying to move things in constructive directions? In a nutshell, I think the draft standards are pretty good and much better than they might have been. There are ten Mathematics Content Standards in the draft discussed in October. One is named Probability, another is Statistics, and another is Modeling. I think they are appropriate, by and large, and on-target relative to what might have emerged, although of course anything can be improved. Each of the ten was expressed at a high level and limited to one page ("less is more" is a common phrase).

The fact that statistics and probability are explicitly listed and included, not just mentioned in passing and subsumed somewhere else, is a big step forward, in my opinion.

Each of the ten content standards is organized around the three components of core concepts to be taught, core skills that students can do, and a description of what students need to coherently understand. Here are the core concepts for the draft Statistics Standard:

"Students understand that:

A. *Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.*
B. *Visual displays and summary statistics condense the information in data sets into usable knowledge.*
C. *Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.*
D. *The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions."*

Here's the first core skill for statistics: *"Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question. Include determining whether a question can best be addressed through a sample survey, randomized experiment or observational study. Include unbiased selection for a sample and randomization of assignment to treatment for an experiment."* Among the understandings is the following: *"Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments."*

For the Probability Standard here are two statements. A core skill is to *"interpret probabilities of compound events using concepts of independence and conditional probability. Include reading conditional probabilities from two-way tables."* Another core skill is to *"identify and explain common misconceptions regarding probability. Include misconceptions about long-run versus short-run behavior of relative frequencies (the law of large numbers)…"*

All the draft content standards can be reached through the link http://www.corestandards.org/Standards/index.htm. There are examples for many of them that flesh out what the high-level general words are intended to mean.

The CBMS conference was attended by about 160 people from many parts of the math and math ed communities. The structure alternated between plenary sessions with several 15-minute talks and break-outs into small groups to discuss various topics. They had a built-in note taking and feedback process to collect ideas and comments, but there was no attempt to take any formal vote on anything (which was appropriate and a good idea). There was also an opportunity for individuals or groups to submit written comments and suggestions to a CBMS steering committee following the forum. A CBMS white paper emerged from this process and was transmitted to the writing group that had requested CBMS input. The white paper is available at http://www.cbmsweb.org/Forum2/CBMS_Forum_White_Paper.pdf.

The white paper is very supportive overall of these efforts, and I'd like to mention three points in it where I especially concur. First, that the standards for mathematical practice (i.e., what one can do with mathematics and how to use it to solve problems) is "extremely ambitious, but the content described by the ten content standards would be insufficient for a student entering college with the intent to major in STEM (science, technology, engineering and mathematics)." Another point is that "the Common Core Standards would require major effort in teacher education, in both preparation and professional development." Furthermore, concerning the mathematics content the white paper states: "Be explicit that students intending to major in STEM will need mathematical content beyond that described in the standards. Include more statistics and emphasis on quantitative literacy."

What's next? Based on all the feedback it has received, the writing team plans to publicly release in February a fleshed-out next draft of "The Common Core K–12 Mathematics Standards." Hopefully it will be at the project website (http://www.corestandards.org/) by the time this *Bulletin* appears. My expectation is that this version will continue to emphasize the importance of statistics and probability within the K–12 mathematics education program, and it will provide more specific expectations by grade level range for these and other topics.

What's next in the broader political and educational landscape? That's harder to say—stay tuned! These are interesting and important topics for our profession and we need to provide informed, constructive and thoughtful input whenever opportunities arise at the local, state and national levels. Good standards are important and can be very valuable, but at the end of the day they are only words on paper. What really has impact is translating them into useful actions for students, teachers, curriculum materials, assessments, and other aspects of education.

Finally, I'd like to thank IMS President Mike Steele for his interest in these topics, for inviting me to attend the forum, and for encouraging me to write up this report for the membership.

Genome-Wide Association Studies

Gang Zheng, Jonathan Marchini and Nancy L. Geller introduce a special issue on statistical methods for genome-wide association studies in the November 2009 issue of *Statistical Science*:

Genome-wide association studies (GWAS) have transformed the field of human disease genetics over the past few years, with the NHGRI Catalog of Published Genome-Wide Association Studies listing 439 associations ($p < 5 \times 10^{-8}$) across 104 different genetic traits. These findings have attracted a lot of attention from many research fields including biology, genetics, public health, epidemiology, medicine, drug development, agriculture, statistics, mathematics, and computer science. It is also a focus of funding agencies, e.g., the National Institutes of Health. Twelve papers in this special issue of *STS* address designs and statistical methods and challenges for the analysis of GWAS data. The contents of this special issue are also presented here [see opposite].

A case-control design is cost-effective for GWAS. **Laird and Lange** compare this design with family-based designs, show some unique features of family-based designs, and discuss how family-based designs can be useful for large-scale association studies. Multiple hypothesis testing is a serious issue in GWAS. **Roeder and Wasserman** review the weighted *p*-value approach and derive two optimal and robust weights, one using prior information and the other using the data. Multistage GWAS designs have been useful to reduce the cost of genotyping. A small portion of promising markers from the previous stage are followed for replication, re-sequencing or fine-mapping. **Thomas et al.** provide a detailed review of the procedures and methods for analyzing multistage data. **Su et al.** propose novel Bayesian methods to detect associations when the causal loci exhibit allelic heterogeneity or are not genotyped or imputed. Their approach extends existing methods of testing genotyped and imputed SNPs. **Astle and Balding** provide a detailed review of population structure, treating population stratification and cryptic relatedness as different aspects of a single confounder. They also review various methods to correct for population structure. **Kooperberg et al.** discuss strategies to select SNPs based on prior information and marginal significance, and to test gene-gene and gene-environmental interactions. **Chatterjee et al.** review prospective and retrospective case-control designs with applications to testing typed and untyped SNPs, haplotype structure, and hapotype-environment interactions. **Zheng et al.** show that the space of genetic models defined at the functional locus shrinks at the marker locus, and show how this affects robust tests in genome-wide scans. Robust methods are also reviewed. Estimating the genetic effects and making predictions using GWAS data are two important aspects of GWAS. **Goddard et al.** propose an integrated approach for both tasks and treat SNP effects as random instead of fixed effects. **Zöllner and Teslovich** provide an update-to-date review of copy number variants (CNVs) and make recommendations for identifying CNVs for common and complex diseases. Both **Pfeiffer et al.** and **Kraft et al.** consider combining data and replications in GWAS, but focused on different aspects. Pfeiffer et al. considered meta-analysis in terms of the detection probability (DP) for a true association among the most promising SNPs selected in a genome-wide ranking. Kraft et al. considered replication studies, including exact replication, issues of heterogeneity, and Bayesian versus frequentist methods.

Overall the issue provides an exciting update of the many statistical aspects of GWAS.

2010 Mortimer Spiegelman Award: Call for Nominations

The Statistics Section of the American Public Health Association invites nominations for the 2010 Mortimer Spiegelman Award, honoring a statistician aged 40 or younger who has made outstanding contributions to health statistics. The award was established in 1970 and is presented annually at the APHA meeting.

Candidates for the 2010 Award must have been born in 1970 or later. Please submit a nominating letter, including a description of the candidate's contributions to public health and birthday, and the candidate's CV, by April 1, 2010. Up to three supporting letters may be submitted. Electronic submissions are preferred.

2010 Spiegelman Award Committee, c/o David Dunson, Chair
Department of Statistical Science
Box 90251, Duke University, Durham, NC 27708-0251
e dunson@stat.duke.edu

Contents of the special genome-wide association study issue in press at *Statistical Science*

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Using GWAS data to identify copy number variants contributing to common complex diseases
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On combining data from genome-wide association studies to discover disease-associated SNPs
Ruth M. Pfeiffer, Mitchell H. Gail and David Pee

Replication in genome-wide association studies
Peter Kraft, Eleftheria Zeggini and John P.A. Ioannidis

CALL FOR PAPERS:

Annals of Statistics issue in memory of Erich Lehmann

The Annals of Statistics will publish a special issue in memory of Erich Lehmann (1917–2009). The Editors, Peter Bühlmann and Tony Cai, are soliciting papers which relate to one of Erich Lehmann's research areas. The manuscripts will undergo the usual review process. Papers for this special issue should be submitted by **October 31, 2010**. The submission should mention in the cover letter that the manuscript is intended for publication in the Lehmann special issue.

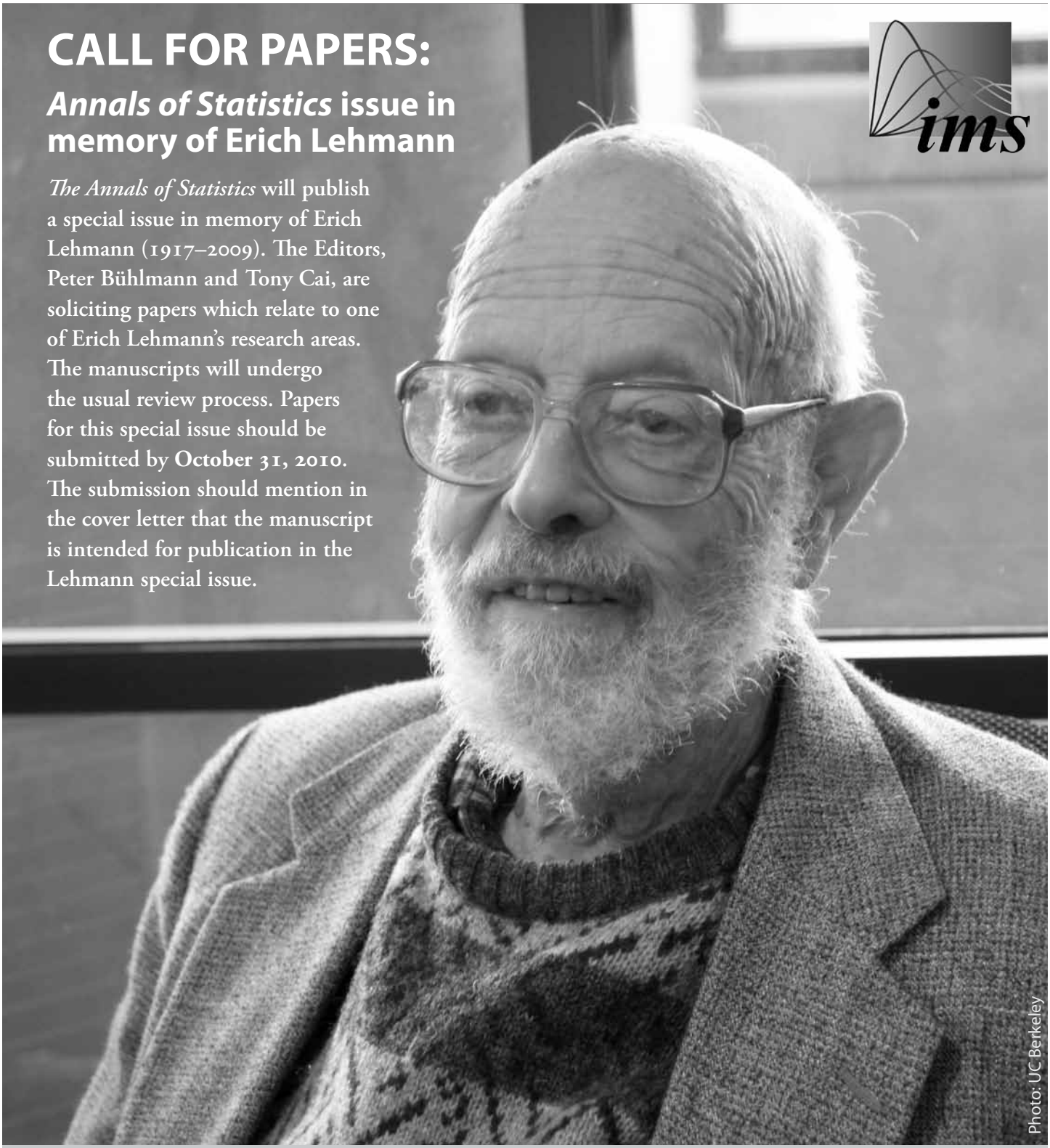

Photo: UC Berkeley

For submission instructions, please see

www.imstat.org/aos

Rick's Ramblings:
An exciting new decade begins

All of the decades in a century have convenient names except for the first two. The one that just finished could be called the oh's, as in OMG. It was a decade of shock and awe. No, I am not talking about the first few months of the Iraq war where the Iraqis, like the Sabine women of Roman times, were supposed to greet us as liberators. I am thinking instead of the feelings I got in the last few months of 2008 and first half of 2009 when I opened monthly reports on my investments.

Paul Krugman in his December 27, 2009, *New York Times* column called "The Big Zero" said it much better. "It was a decade with basically zero job creation … [and] a decade with zero economic gains for the typical family. Actually, even at the height of the alleged *Bush boom*, in 2007, median household income adjusted for inflation was lower than it had been in 1999. And you know what happened next."

The Dow first hit 10,000 in 1999, and after a roller coaster ride ended 2009 at 10,520. In contrast, on the cover of the first edition of *Probability: Theory and Examples* you will see a picture of one day of the Dow circa 1990 fluctuating around 2650.

The new decade can't quite be called the teens. Perhaps it should be called the *trillions*, after government's favorite new number. Paradoxically, we can spend a trillion in Iraq and Afghanistan to inspire a new generation of terrorists, and on Wall Street to bring back multimillion dollar bonuses to honchos who lost our shirts on subprime mortgages, but we won't reform a health care that leaves millions without coverage. A few years ago the proposal to spend $1.2 billion to sequence cancer genomes sounded like a lot of money, but now it looks like we aren't serious about this project. (By the way, statisticians who want to follow up on the successful exposé reported in the last *IMS Bulletin* might want to take a look at the statistics behind these big sequencing efforts.)

So why am I so excited about this new decade? It is because after 25 years at Cornell, I am leaving to go to Duke—well, assuming they give me tenure. Most people's first reaction to this news is that I am leaving the cold. As Obi-wan said in Star Wars, "That is true, from a certain point of view." Hiring for the probability position at Cornell vacated by Greg Lawler in 2006 is frozen and it will not be thawing in the near future.

The activation energy for my move came from spending half a year as a candidate to succeed Jim Berger as SAMSI director [*we'll bring you news on this appointment very soon–Ed*]. Sitting dazed in the Philadelphia after my second interview trip at the end of July, which involved 33 hours of meetings over three days, I realized that I'd rather do research than manage the process. However, I had also seen the many opportunities for interdisciplinary work in the Research Triangle in addition to the activities at SAMSI, and the rest, as they say, is history.

The department I am joining is smaller than Cornell, about two dozen instead of forty faculty members, but it is split almost equally between pure and applied researchers who peacefully coexist. In contrast, the Cornell math department has never had much of an interest in people who do applications. Ultimately, the move is not about leaving a bad situation, but going to a great new one. At Duke, I will join Jonathan Mattingly and Mike Reed, who is the PI on a new RTG in mathematical biology. In the department Mauro Maggioni and Jim Nolen do work that is close to, but not officially within, probability. Nearby in Chapel Hill, are probabilists Shankar Bhamidi, Amit Budhiraja, and Jan Hannig, and the very creative and energetic Peter Mucha.

Rick Durrett is *really* rambling: all the way from Ithaca to Durham, NC, home of the Blue Devils!

I could list a large number of people on the Duke campus who do interesting work in applied math, ecology, genetics, or on cancer models, but if I started I would undoubtedly leave out a few important names. What the heck, with people like Sayan Mukherjee and Robert Wolpert, I might even get involved in statistics. In Durham, this is the domain of Mr. Bayes and his theorem. I know there has been a long (and boring) debate with frequentists and other factions, but for me the choice of sides is obvious. To steal a line from Vanya Dukic, who came to a couple of the Cornell Probability Summer Schools, Bayesians have the best parties.

Looking back over what I have written, I see that the column has lived up to the name ramblings. However, the common theme and the bottom line is that with the Berkeley probability group scattering to the four winds, the research triangle will soon be the #1 destination for probability, so as we used to say in Alabama: *Ya'll Come*.

Ethical and Professional Expectations in Scientific Publication

Peter B. Imrey, PhD (Cleveland Clinic Foundation and Cleveland Clinic Lerner College of Medicine of Case Western Reserve University) based this article on his talk to the NISS/ASA Writing Workshop for Junior Researchers at JSM 2009. Peter is a member of the American Statistical Association Committee on Professional Ethics, but the views presented here are his alone.

Statisticians involved in research, whether developing statistical theory and methods or applying them to problems in the biomedical, physical, or social sciences, will inevitably participate in the scientific publication process as reader, author or coauthor, reviewer, and/or editor. This process, utterly essential to progress, is a complex collaborative enterprise that confers stringent behavioral norms and expectations upon all involved. These are traditionally taught informally by mentors, in the common "learn-by-doing" mode of advanced academic and professional training. While this approach is usually effective, it lacks uniformity and risks potentially damaging omissions. This article is meant to help new researchers understand and navigate the publication process, and established researchers to mentor students and colleagues. Topics to be covered include plagiarism, multiple and split submissions, refereeing, citation, authorship requirements and, in most abbreviated fashion, some issues related to conflict of interest, with special attention to current turmoil in clinical medical research. The author claims good intentions but no special authority or ethical purity. While some comments are directed more to applied statisticians than theorists, acquaintance with the issues involved should be valuable to all.

Plagiarism

Plagiarism, the publication of another's work as one's own, is a universally-acknowledged violation of publication ethics. But the scope of its meaning may not be fully appreciated in the context of routine dissemination of textual materials through the World Wide Web, and of public group-authorship enterprises such as Wikipedia. Plagiarism can range from the wholesale expropriation of another's ideas to modest excerpting of text without citation. The former is theft of intellectual property. It is clearly unethical because it deprives the victim of due credit. But the damage to an original author when a second party reuses text without citation, but also without claim to originality or priority, is ordinarily minimal (unless, perhaps, it occurs in a competition with the original author for grant support). The reassembly of excellent text from other sources may thus seem a harmless path to better expository scientific writing, which citation would cumbersomely clutter.

However, the prioritization, organization, and phrasing of expository writing provide insight into a writer's depth of understanding of scientific facts, and the facility and logical soundness with which she deals with important concepts. Selecting from work of others is not equivalent to formulating or actively manipulating text to express a point oneself. Direct use of others' text misrepresents the plagiarist as possessing whatever knowledge and skill the original author(s) brought to bear on its construction. This is a form of fraud. There are, of course, just a few ways to state or allude to what is obvious, quite simple, or widely familiar to the intended audience. It is not necessary to be pedantic. But text at a more sophisticated level requires attribution if it is borrowed or directly paraphrased.

Multiplicity

Parallel submissions of the same or similar papers, and split submissions of partial results directed at niches, are strategies authors can use to speed publication, increase publication and citation counts, and appear more scientifically productive. But these practices squander, by unnecessary replication, a limited and increasingly stressed resource: the availability and close attention of highly-qualified journal editors and reviewers, almost all of whom are volunteers with minimal or no compensation. As a general rule, original scientific work should not be under review for publication at any one time by more than one journal targeting a given audience. Moreover, authors should attempt to package together closely-related work performed under the same project to address the same overall question, rather than split the work into multiple submissions. Realistically, the cost to the research community of multiple and split submissions is largely hidden. But it is paid nevertheless: in reduced quality of feedback and decision-making in the review process, preemption or delay of publications of more original work by wholly or partially redundant material, increased costs both to and of refereed journals, and decreased incentive for a strong peer-review process. The ultimate effects of weakened peer review on the efficiency of scientific work and the quality of its output are debatable, but potentially very serious.

Notwithstanding, it is perfectly appropriate to submit material written at different technical levels simultaneously to journals aimed at different audiences. Also, journal reviewers and editors may sometimes resist comprehensive publication of a study's results, either because aspects of the study speak to different audiences, or because of policies on allocation of journal space. If multiple

journals respond in this way, it is appropriate to acknowledge the realities of the system and split the work, so as to direct portions, each of a length publishable by a strong journal, to their core target audiences. Finally, in some research areas it is conventional and useful to publish sequential aspects of ongoing studies more or less as they occur. Thus, the study design and statistical analysis plan of an important clinical trial may appear in a stand-alone paper, to be followed by papers describing relationships discovered in its baseline data or in more rapid ancillary studies, and even later by results on major endpoints. Multiplicity in this sense does not raise the above concerns of redundancy and resource allocation, and is thus quite reasonable.

Refereeing

Referees advise a journal on the suitability of a submitted manuscript. In so doing they are agents of the editors, but also professionally and ethically responsible to authors to provide competent and fair appraisals. There are important expectations, both formal and informal, with respect to both these parties. Formally, as agent of the editor, the referee assumes the journal's obligation to provide a confidential review process that does not compromise the authors' scientific priority and intellectual property rights. It is unethical for a referee to reuse ideas from a refereed manuscript without permission, or delay a review to allow earlier publication by himself or another of similar or competing ideas. Confidentiality is interpreted in practice to allow a referee to seek advice on a manuscript from a colleague with complementary expertise, or commission a colleague or good student to prepare a portion of the review with oversight. But beyond this it is improper for any of these parties to redistribute the manuscript or its content. Referees should recognize that in very competitive situations, although rarely, disclosure of even the existence of a manuscript could have serious scientific, and even legal and economic, consequences.

Editors have the right to expect referees to be honest on matters of process. It is best to decline a review, even one previously accepted, if unsure either of one's technical competence to do it well, or of whether a third party might perceive a conflict of interest. In any case, one should discuss such concerns with the editor if they arise at any time in the refereeing process. Late reviews are not unusual, but possible major delays in meeting journal deadlines should be disclosed when the possibility appears. Editors of statistical journals have been reducing turnaround times, and authors and editors in many disciplines with which statisticians work expect much more rapid turnaround than typical in Statistics.

Although details differ among journals, a referee typically provides comments for the editor and anonymous comments, of a different character, for the author(s). Advice for the editor should be direct and frank, extract and summarize the main points at issue, and may be wide-ranging, including not only technical issues but also considerations of style and fit with the journal's audience and previous publication history. The formal expectation is that comments for the author(s) provide feedback on issues the referee considers important to the quality of the work and to a publication decision by the journal, without apparently preempting a decision by the editors. These comments should contain questions or recommendations that would, if satisfactorily addressed, strengthen the case for publication to the extent possible, or otherwise clarify the case against it.

But informal expectations beyond this stem from the fundamental reciprocity of the author, reviewer, editor relationships, since these roles tend to be played by the same people at different times and career stages. The purpose of all involved is to improve the research product and its dissemination, and the spirit of the Golden Rule should apply. Referees should be honest with the author(s) but always polite, and encouraging whenever possible. While mentoring *per se* is not obligatory, the best traditions of refereeing are fulfilled when reviewers provide detailed guidance on improving a paper, even if rejection by the current journal is recommended. Conversely, referees pressed for time may underestimate the potential damage from slapdash reviews. Overly discouraging referee's reports can demoralize researchers and delay promising research lines. Slipshod reviewing is deplorable, because it can negligently and anonymously damage and even kill careers.

The above discussion assumes authors take the editorial process seriously, and prepare manuscripts with care. Neither editors nor referees are obligated to spend substantial time improving obviously cursory drafts, or assisting authors who provide misleading responses to comments or questions.

Citations

Journal citations, tracked through the *Science Citation Index*, are a primitive but widely used guide to scientific influence of individual papers, authors, and journals. This and simple honesty underlie an ethical imperative that authors cite what is used, select the most relevant and useful choices from among alternative citations, avoid citing only themselves and friends, including relevant work by rivals.

Authorship assignment when statisticians collaborate

Criteria for assignment and ordering of authorship vary across disciplines, depending on how the academic independent thinker archetype interacts with reality: i) the types and combinations of

resources the disciplines need for research, ii) how these resources are controlled, and iii) the reward systems for those who control them. Statisticians may find themselves disadvantaged or, less often, privileged by such criteria and their idiosyncratic implementation. The range of ethical and other professional issues associated with authorship in collaborative research generally, or specifically for statisticians, is too broad to address here. We briefly remark on some core issues, using medical science examples.

Arguments for authorship by collaborating statisticians should ordinarily rest on substantial impact on the research design; substantial impact on data analysis and interpretation; and/or organization and execution of essential large scale and logistically challenging data collection activities. Development of new statistical methods and improvement of design or analysis by importation/adaptation of statistical methods novel to a research area are strong but not essential arguments for substantial impact. Although statisticians should be treated equitably with collaborators in other disciplines, depth and duration of hard work on a project does not, in and of itself, constitute a claim for authorship on ethical or other grounds. This approach is consistent, for instance, with the International Committee of Medical Journal Editors (ICMJE) authorship criteria, promulgated by hundreds of medical journals, that all authors should i) contribute substantially to conception and design, or acquisition of data, or analysis and interpretation of data; ii) participate in drafting the article or revising it critically for important intellectual content; and iii) give final approval to the version to be published.[1]

Attribution, conflict of interest, and role disclosure[2]

Academic statisticians might assume ICMJE criteria ii) and iii) to be implicit in criterion i). However, separation and delegation of the functions of research conduct and governance, manuscript preparation, authorship recognition, and formal authorization of publication and approval of content are not rare. This occurs partly due to efficiency concerns; manuscript preparation by large committee is unwieldy and inefficient, and project participants may exhibit widely varying levels of interest and energy. But another factor is the presence of multiple stakeholders representing varying scientific interests and, for some studies, also commercial and regulatory perspectives and interests without which the research might never take place. An individual paper may, for instance, be considered as one component of a comprehensive publication strategy. Its preparation may then involve academic and industry scientists, scientific managers, and professionals from industry marketing and medical writing departments and contract medical communications/public relations firms.[3-6]

Complex research enterprises that disperse responsibilities for publications, and disassociate attribution and responsibility, may place scientific researchers, including statisticians, in professionally and ethically difficult situations. For instance, concern has been expressed about abuses that suggest conflicts of interest in medical research.[7] "Guest authors" are academics who serve as authors of papers largely written by a sponsor or retained medical communications/public relations firm. These may be review papers or reports of results of clinical trials primarily conceived, executed, and interpreted by the sponsor. "Ghost authors" prepare manuscript content behind the scenes without authorship listing.[8] It has been suggested that ghost authors are frequently statisticians.[9,10] Use of guest and ghost authorships have been criticized for misattributing scientific responsibility and obscuring conflicts of interest.[5,11,12] Concerns have been raised about the potential biasing effects of selective reporting of studies, outcome variables, and patients, on the flow of scientific information that feeds medical practice.[13-18] Assignment of responsibility for perceived cases of selective reporting has proven elusive. Some clinical studies have been criticized for using the appurtenances of research as an instrument of pharmaceutical marketing to participating physicians, much as "push polls" are currently used in political campaigns and telemarketing.[19,20] While physician researchers have borne the brunt of criticism, statisticians have also received attention. A leading medical journal routinely requires pre-publication confirmation by academic statisticians of results of clinical trials reported by industry statisticians.[21] In objecting, biostatisticians have noted that academics also have conflicts of interest.[22-25]

The references in the preceding paragraph were selected as particularly current, summative, seminal, and/or illustrative, and are in no sense exhaustive. The respect and influence accorded statisticians in science rest on the perception that we are honest brokers, especially equipped by training and inclination to address questions of research structure and interpretation dispassionately. The increasingly complex organization of collaborative scientific research, and the controversies in biomedical research alluded to above, suggest that to avoid ethical and professional dilemmas, statisticians should take special care to ensure work of practical importance is properly attributed by authorship or acknowledgement, and to establish and maintain the prerogative of oversight and approval of publications reporting our work. Most importantly, recognizing the legitimate and important roles statisticians can play in both scientific research and marketing or other forms of advocacy, it will be essential to resist commingling such roles in any single professional situation, by choosing between them and clearly labeling work products according to the chosen role.

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Letter: Three thoughts on the editorial process in statistical journals

Dimitris N. Politis is Professor of Mathematics and Adjunct Professor of Economics at the University of California, San Diego. He has served as member of the Editorial Boards of many journals, including currently: the *Journal of Nonparametric Statistics*, the *Journal of the Royal Statistical Society (Series B)*, the *Journal of Time Series Analysis*, and the *Journal of Multivariate Analysis*. He wrote a letter about the editorial process:

Dear Editor

After over 20 years in the business of reading and writing papers, and over ten years in the editing business, here are some personal thoughts on the editorial process.

1 All papers may benefit from a revision but few will from a third revision

The first premise is a no-brainer: receiving feedback from expert reviewers is a gift that the author can (and should) put to good use. Nevertheless, scholars can be pedants, and a referee may insist on repeated revisions on issues that might not be core to the paper—making small changes here and there, adding more simulations, etc. At this point, the editor or associate editor should step in to unblock the situation, not only in view of publishing the paper in a timely manner but also because the third revision of a paper might actually turn out for the worse! Here is how: implementing small changes here and there typically has ramifications throughout the paper (especially a complex, theoretical paper). The author, who at the time will likely be immersed in different research projects, might not be able to catch all of these repercussions, and the referees may not either as they will not re-read the paper line-by-line.

2 No review should take a year but a thorough review cannot be expected in a month

Long reviews taking 12–15 months were a big concern of authors (and editors) before the era of manuscript central-type handling that has greatly increased journal efficiency. However, the pendulum may have swung the wrong way since many journals now require the referees to respond within 4–6 weeks, despite the fact that 3–4 months is perfectly acceptable by most authors. Admittedly, if a paper is an epsilon-improvement of an existing work with which the referee is familiar, then the review could be completed in a month. But if this is not the case, if the paper contains really novel ideas that the referee—although an expert in the field—is unfamiliar with, then, after glancing at the paper, the referee will likely put it aside to revisit later at a quieter time. Finding such a time may well take two or three weeks, at which point the referee receives a nasty reminder from manuscript central that the review is expected in a week! The referee may try to comply, quickly allotting an hour or two for this review, although a thorough review might have required twice as long. The result is a timely—but superficial—review that might not do justice to a paper containing new ideas.

3 When in doubt, give the benefit

This is perhaps the most controversial of the three aphorisms. The idea is the following: consider a paper containing novel ideas that the reviewers are again unfamiliar with. The referees check the paper for technical correctness, and find it sound. However, it is always a shock to the system seeing a different approach to a problem one knows well; so, the referees may be unwilling to give a strong endorsement to such a paper, leaving the editor or associate editor with a tough decision on the potential impact of this work. Unless a journal has different (and explicit) programmatic goals, at this point I would give the benefit of the doubt to the author because a risk analysis is in his/her favor. To elaborate, if the paper is destined to have little impact in the field, there is little damage to the journal's reputation for including it since it is novel and correct; even top journals have their share of low-impact papers. If, however, the work were destined to have strong positive impact to the field but the paper is rejected, then the cost to science, and society, may be appreciable.

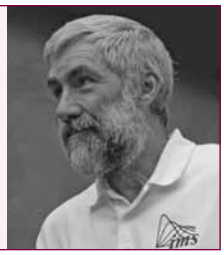
Sincerely,

Dimitris N Politis

Have you got any ideas, as an author, editor or referee, about how the editorial process can be improved? Go on, write us a letter… Email bulletin@imstat.org

Terence's Stuff: Scientific Peer Review, ca 2010*

Just how big is your *n*? When Terry Speed was consulted on this issue, he found the answer was not as straightforward as his questioner thought…



I knew something bad had happened when I saw the header to the email: *a statistics question*. When a colleague that I haven't talked to for years gets in touch, especially one who has never consulted me before on a statistical matter, there is usually a problem. The email was brief and to the point—*I need your help on a statistics question*—but it conveyed a sense of urgency, ending *I'm available pretty much any time*. It turned out to be a familiar one: a paper was submitted including several analyses that treated a set of observations as independent, although they were collected in groups, and a referee had queried the analysis. The experiments were on chemical synapses, the functional connections between neurons. To determine the effect of two different treatments on synapses, you place neurons on each of two cover slips and measure n_1 synapses for treatment 1 and n_2 synapses for treatment 2. Then a standardized difference of means is calculated, to test the null hypothesis of no treatment effect on the measurement. Since n_1 and n_2 are each about 100, we'll call it a z-test. This is all fine, and not surprisingly with such sample sizes, significant differences are observed. But what if we use 4 cover slips for each treatment, and still take 100 measurements per cover slip? How then do we test the null hypothesis, and do we have 400 observations per treatment, or 4? That was his question. The analysis in the paper pooled across cover slips, assuming 400 was the right answer, and the referee had suggested he do a nested ANOVA to settle the matter. My response was that I could show him how to do the test, but whether he had 4 or 400 observations depended on the data. I sent him away to plot the data stratified by cover slip. The conclusion was that for the two variables for which p-values had been calculated, it was much more like 4 than 400 observations. That is, the observations were in all cases clustered about their cover slip means, which themselves varied considerably, with little evidence of any treatment differences.

As consulting statisticians we have many roles, including the police officer *(here's how you carry out a legitimate inference)*, the bearer of bad news *(your* n *is too small)*, and the pathologist *(let's do a post-mortem to establish what the experiment died of)*. In this case, the experiment wasn't dead, but the n was too small. The submitted paper summarized a huge amount of work: molecular biology, binding assays, brain dissection, cell cultures, cell staining, microscopy, live imaging. To go back and repeat 2 or 4 more times what had already been done was more than my experimenter could contemplate. What should be done? I asked about the analysis for these data that would be accepted by the best journals in the field, only to be told that this was it. However, it was becoming clear that the referee to their paper was about to change things. In his report, he noted that papers were being published in 'high-profile' journals with observations being pooled across cover slips, but that this did not necessarily make it correct. I then asked whether the two illegitimate p-values were crucial to the paper's conclusions. The answer was no, so I suggested he consider pulling this part out.

He returned next day with a new variable for which the treatment differences seemed so obvious he hadn't bothered to calculate a p-value, but simply given a plot. This conclusion was crucial to the paper: without it, the paper would lose its point. The differences did indeed *look* obvious—but that was with 400, not 4, observations for each treatment. Looking at them stratified by cover slip, I could see that it would be a very close call. And so it was. A permutation F-test of the null hypothesis of no treatment differences gave a one-sided p-value of 0.035, and so 0.07 for the corresponding two-sided test. Close indeed, but perhaps the referee would accept it. They had done as asked, were given a serious fright, and will do better next time.

I subsequently learned that this very issue (*"How Many Subjects Constitute a Study?"*) surfaced in the closely-related world of neuroimaging a decade ago, when a class of inferences was identified that "requires random effects analyses and larger cohorts". It was discussed in agriculture in the 1930s, and has doubtless popped up elsewhere, both before and since.

* *inspired by a YouTube clip (caution: contains swearing!)*

Most scientists regarded the new streamlined peer-review process as "quite an improvement."

IMS 2010 Gothenburg

Institute of Mathematical Statistics

73rd Annual Meeting, Aug 9-13, 2010, Gothenburg, Sweden
Venue: Chalmers University of Technology

IMS 2010
Gothenburg
August 9 -13

Probability and Statistics Sessions

- Statistical theory and methods
- Stochastic processes and analysis
- Computer modelling and computing
- Genetics , health and epidemiology
- Molecular biology and genomics
- Statistical physics and disordered systems
- Statistics, physics and the environment
- Probability, economics and social science
- Combinatorics and graph theory
- Probability in biology
- Neuroscience and imaging
- Risk and extreme values

Registration online on conference website:
www.ims-gothenburg.com

CHALMERS | UNIVERSITY OF GOTHENBURG

www.ims-gothenburg.com

Registration, abstract submission and hotel bookings open

IMS meetings around the world

2010 WNAR/IMS Meeting: June 20–23, 2010, Seattle, Washington

w http://www.wnar.org/

IMS Program Chair: Brenda Kurland; WNAR Program Chair: Carolyn Rutter

WNAR sponsors students who enter the student paper competition with travel assistance and registration prices. Information on the 2010 WNAR Student Paper Competition, registration information and program details for the meeting will be posted on the WNAR website http://www.wnar.org/ as they become available. We look forward to seeing you there!

IMS-sponsored meeting

2010 WNAR/IMS Meeting

June 20–23, 2010 | Seattle, Washington

University of Washington Department of Biostatistics
Fred Hutchinson Cancer Research Center Biostatistics & Biomathematics Program

Forests. Mountains. Water. Art. Science. **Seattle**.

Explore the world-class city of Seattle while attending this year's WNAR meeting, hosted by the University of Washington and Fred Hutchinson Cancer Research Center. With its unique combination of culture and nature, Seattle has something to offer everyone. | For travel information, visit http://www.visitseattle.org .

Photo credit: Scott Beale / Laughing Squid

Selected Attractions

- Rent a canoe or rowboat at the UW Waterfront Activities Center http://depts.washington.edu/ima/IMA_wac.php or sip margaritas at the adjacent Agua Verde Paddle Club and Cafe http://www.aguaverde.com/
- Enjoy a Seattle Sounders FC match at Qwest Field http://www.soundersfc.com/
- Visit the Seattle Art Museum or the Olympic Sculpture Park http://seattleartmuseum.org/
- Shop at the world-famous Pike Place Farmer's Market http://www.pikeplacemarket.org
- Rock and Geek out in the same building at the Experience Music Project and Science Fiction Museum http://www.empsfm.org
- Catch a Rat City Rollergirls bout http://www.ratcityrollergirls.com/
- Ride a ferry to the beautiful San Juan Islands http://www.visitsanjuans.com

Local Organizers: Ying Qing Chen, email: yqchen@scharp.org
Gary Chan, email: kcgchan@u.washington.edu

For more meeting information visit http://www.wnar.org/

At a glance: forthcoming IMS Annual Meeting and JSM dates

2010

JSM: Vancouver, Canada, **July 31–August 5, 2010**

IMS Annual Meeting: Gothenburg, Sweden, **August 9–13, 2010**

2011

IMS Annual Meeting @ JSM: Miami Beach, FL, **July 30–August 4, 2011**

2012

IMS Annual Meeting @ World Congress: İstanbul, Turkey, **July 9–14, 2012**

JSM: San Diego, CA, **July 28–August 2, 2012**

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**

More IMS meetings around the world

IMS sponsored meeting

JSM2010

July 31 – August 5, 2010

Vancouver, British Columbia, Canada

w www.amstat.org/meetings/jsm/2010/

The 2010 Joint Statistical Meetings will be held at the Vancouver Convention Center.

The IMS program chairs are Regina Liu, Rutgers (rliu@stat.rutgers.edu), for invited sessions, and Mu Zhu, University of Waterloo, Canada (mzhu@post.harvard.edu), for contributed sessions. If you have any questions about the JSM 2010 program, please contact them.

Abstract submission open between December 1, 2009 and February 1, 2010.

Please note the new requirements for travelers from the United States

Since January 1, 2007, EVERYONE traveling by AIR between the United States and Canada, Mexico, Central and South America, the Caribbean and Bermuda have been required to present a valid passport, air NEXUS card, or U.S. Coast Guard Merchant Mariner Document due to regulations set forth by the Western Hemisphere Travel Initiative.

As of 1 June 2009, EVERYONE traveling between the United States and Canada, Mexico, Central and South America, the Caribbean, and Bermuda by LAND, SEA (including cruises and ferries) or AIR will be required to present a valid passport or other documents as determined by the Department of Homeland Security to cross the border.

U.S. residents can access the following websites for passport and Visa information:

Passport: http://travel.state.gov/passport/passport_1738.html

Visa: http://travel.state.gov/visa/visa_1750.html

IMS sponsored meeting

Thirteenth Meeting of New Researchers in Statistics and Probability

July 27–30, 2010

University of British Columbia, BC, Canada

w http://www.stat.tamu.edu/~sinha/nrc2010-ims.html

The application deadline has passed.

The New Researchers' Committee of the IMS is organizing a meeting of recent PhD recipients in Statistics and Probability. The purpose of the conference is to promote interaction among new researchers primarily by introducing them to each other's research in an informal setting. All participants are expected to give a short, expository talk or contribute a poster on their research. The meeting is to be held prior to the 2010 Joint Statistical Meetings in Vancouver, BC, Canada (see above).

Contact Samiran Sinha, Texas A&M University, **e** sinha@stat.tamu.edu

IMS co-sponsored meeting

International Chinese Statistical Association's 2010 Conference: Frontiers of Interdisciplinary and Methodological Statistical Research

December 19–22, 2010

Guangzhou University, Guangzhou, China

w http://www.icsa2.org/Intl_2010/

Program co-chairs: Bin Yu and Zhi-Ming Ma. Contributed paper deadline: September 1

IMS co-sponsored meeting

2010 ENAR/IMS Spring Meetings

March 21–24, 2010: New Orleans, Louisiana, USA

IMS Program Chairs: Marie Davidian and Hao Helen Zhang

w http://www.enar.org/meetings.cfm

If you want to help rebuild a little bit of New Orleans, please come one day early into New Orleans: ENAR is coordinating with Habitat for Humanity and has planned a volunteer work project for Saturday March 20, 2010 (about 8am–5pm). No tools/experience needed; just bring work clothes, work shoes/boots, and gloves. Pick-up and drop off at New Orleans Hilton. Please contact Brian Marx (bmarx@lsu.edu) or Kathy Hoskins (khoskins@drohanmgmt.com) for more information.

IMS co-sponsored meeting NEW

Bayesian Nonparametric Statistical Methods: Theory and Applications
August 16–20, 2010
Santa Cruz, CA, USA
w www.ams.ucsc.edu/CBMS-NPBayes

IMS co-sponsored meeting NEW

Recent Advances in the Numerical Approximation of Stochastic Partial Differential Equations
August 9–13, 2010
Chicago, IL, USA
w http://mypages.iit.edu/~duan/SPDE2010.html

IMS co-sponsored meeting NEW

2010 UIUC Statistics Symposium
March 29–30, 2010
Champaign, Illinois
IMS Representative(s) on Program Committees: Xuming He
w http://www.stat.uiuc.edu/alumni/sympos.html

IMS co-sponsored meeting NEW

International Workshop on Emerging Issues and Challenges to Statistics
December 24–25, 2010
Xiamen University, Fujian, P.R. China
IMS Representative(s) on Program Committees: Jiayang Sun
w http://www.southalabama.edu/iweics/

IMS co-sponsored meeting

35th Conference on Stochastic Processes and their Applications
June 19–25, 2011
Oaxaca, Mexico
w TBC

Request for Proposals for the 2011 NSF-CBMS Regional Research Conferences in the Mathematical Sciences NEW

Proposal Due Date: April 23, 2010
w http://www.cbmsweb.org/NSF/2011_call.htm

IMS co-sponsored meeting NEW

International Conference on Statistics and Society
July 10–12, 2010
Renmin University of China, Beijing, China
w http://stat.yale.edu/Conferences/ICSS2010/index.html
IMS Rep: Harrison Zhou

We are pleased to announce the international conference on Statistics and Society at Renmin University of China in Beijing, China, in conjunction with biannual meeting series International Forum on Statistics from Renmin University of China and Frontiers of Statistics from Chinese Academy of Science.

Plenary speakers: Peter J. Bickel, Lawrence D. Brown, Stephen E. Fienberg, Peter G. Hall, Iain Johnstone (TBA), Zhiming Ma, Lawrence Shepp, David O. Siegmund, Bernard Silverman, Michael S. Waterman, Wing Hung Wong.

Scientific Committee co-chairs: Lawrence Brown, Jianqing Fan, Zhiming Ma, Wei Yuan.

All information, registration forms, accommodations, etc. is available online at the meeting website above. Online Registration Period: March 1, 2010 - April 30, 2010

If you live in China, contact Professor Wei Yuan (wyuan@ruc.edu.cn) for more information. If you live in other countries, send your enquiries in English to Professor Harrison Zhou (huibin.zhou@yale.edu).

IMS co-sponsored meeting

34th Conference on Stochastic Processes and their Applications
September 6–10, 2010
Osaka, Japan
w http://stokhos.shinshu-u.ac.jp/SPA2010/

To be held in Osaka, Senri life center, from 6–10 September, 2010. The conference is organized under the auspices of the Bernoulli Society for Mathematical Statistics and Probability and co-sponsored by the Institute of Mathematical Statistics. It is the major annual meeting for researchers working in the field of Stochastic Processes.

The conference covers a wide range of active research areas, in particular featuring 20 invited plenary lectures presented by leading specialists. In addition, there will be a large variety of special sessions, consisting of three talks each, and contributed sessions.

Osaka Castle: photo by Joop Dorresteijn/Wikimedia

More IMS meetings around the world

IMS sponsored meeting

2012 World Congress/IMS Annual Meeting
July 9–14, 2012. Istanbul, Turkey

w http://home.ku.edu.tr/~worldcong2012/

The eighth World Congress in Probability and Statistics will be organized by Koç University in Istanbul from July 9 to 14, 2012. This event is the 8th World Congress of the Bernoulli Society jointly organized with the 2012 Annual Meeting of the Institute of Mathematical Statistics. Scheduled every four years, this meeting is a major worldwide event in mathematical statistics, probability, stochastic processes and their applications. It features the latest scientific developments in these fields.

The program will cover a wide range of topics in mathematical statistics and probability, presenting recent developments and the state of the art in a variety of modern research topics and in applications, and featuring several special plenary lectures presented by leading specialists. In addition, there will be invited sessions highlighting topics of current research interests as well as a large number of contributed talks and posters.

The venue of the meeting is Koç University located in Istanbul, which is a vibrant, multi-cultural and cosmopolitan city bridging Europe and Asia. Istanbul has a unique cultural conglomeration of east and west, offering many cultural and touristic attractions, such as Hagia Sophia, Sultanahmet, Topkapı Palace and Maiden's Tower. On behalf of the Scientific Program and Local Organizing Committees, we invite you to join us in Istanbul for this exciting scientific event.

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!

Sydney Opera House, one of the world's iconic buildings

IMS co-sponsored meeting

AISTATS2010 (Artificial Intelligence and Statistics)
May 13–15, 2010
Chia Laguna Resort, Sardinia

IMS Rep on Program Committees: Michael Titterington

w http://www.aistats.org

The objective of this series of conferences is to bring together people with common interests from the computer science, statistics and related communities.

There will be a small number of invited talks, by Richard Gill, John Lafferty and Simon Tavaré, but the bulk of the program will consist of contributed talks and posters; see the website for details, especially the deadline of November 6, 2009 for submission of full papers for review.

IMS co-sponsored meeting

Sixth Cornell Probability Summer School
July 19–30, 2010
Cornell University, Ithaca, NY

w http://www.math.cornell.edu/~durrett/CPSS2010/index.html

The scientific program is organized by Laurent Saloff-Coste. The theme is heat kernels.

The main speakers, who will give six lectures each, are Martin Barlow, Bruce Driver, and Alexander Grigoryan. Two lecture series will be given by Sasha Bendikov, Z.Q. Chen, Masha Gordina, and Takashi Kumagai.

As in the past, all accepted participants will have their dorm rooms paid for. US citizens can apply for $400 of support for local expenses. Individuals who wish to participate should submit the registration form (by April 1) at http://www.math.cornell.edu/~durrett/CPSS2010/reg2010.html

IMS co-sponsored meeting

2011 ENAR/IMS Spring Meetings
March 20–23, 2011
Hyatt Regency Miami, Florida, USA

w http://www.enar.org/meetings.cfm

IMS co-sponsored meeting

2012 ENAR/IMS Spring Meetings
April 1–4, 2012
Hyatt Regency Washington on Capitol Hill
Washington DC, USA

w http://www.enar.org/meetings.cfm

IMS co-sponsored meeting

Seventh Cornell Probability Summer School
July 11–22, 2011
Cornell University, Ithaca, NY

The school will be concerned with probability problems that arise from statistical physics.

The main speakers are Marek Biskup, Geoffrey Grimmett, and Greg Lawler.

IMS co-sponsored meeting

CRiSM Workshop on Model Uncertainty
May 30 – June 1, 2010
University of Warwick, UK

IMS Representative on Program Committees: Dario Spanò

w http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/model-uncertainty/

Registration is now open for the CRiSM workshop on Model Uncertainty at the University of Warwick. The purpose of the meeting is to discuss recent developments and research on topics related to model uncertainty and model choice. The workshop largely follows the format of the 2006 CRiSM workshop on Bayesian Inference for Stochastic Systems. As in 2006, the timing of the conference has been chosen to ease the transition, for all interested participants, to the Valencia meeting on Bayesian Statistics, starting on June 3.

Invited speakers who have already accepted our invitation include Jim Berger (Duke), Carlos Carvalho (Chicago), David Dunson (Duke), Jon Forster (Southampton), Arnoldo Frigessi (Oslo), Alan Gelfand (Duke), Ed George (Pennsylvania), Chris Holmes (Oxford), Michael Jordan (Berkeley), Robert Kohn (New York), Athanasios Kottas (California), Antonio Lijoi (Pavia), David Madigan (Columbia), Peter Müller (Texas), Christian Robert (Paris), David Spiegelhalter (Cambridge), Yee Whye Teh (UCL), Nanny Wermuth (Gothenburg), Henry Wynn (LSE).

To participate, please complete the application form which can be found at the meeting website, where you can also submit a title and an abstract for a contributed talk/poster.

Financial support is available to encourage the participation of interested young academics, PhD students and Postdoctoral Fellows. See the website for instructions on how to apply.

The organisers of the workshop are: Jim Griffin (J.E.Griffin-28@kent.ac.uk); Mark Steel (m.f.steel@stats.warwick.ac.uk); Gareth Roberts (Gareth.O.Roberts@warwick.ac.uk); and Dario Spanò (d.spano@warwick.ac.uk).

We hope this will get us all in the right mood for Valencia 2010.

IMS co-sponsored meeting

From Markov Processes to Brownian Motion and Beyond—International Conference In Memory of Kai Lai Chung
June 13–16, 2010
Peking University, Beijing, China

w http://www.math.northwestern.edu/chung2010/

IMS Reps on Program Committees: Louis Chen, Zhen-Qing Chen, Jim Dai, Zhi-Ming Ma and Ruth Williams.

This conference is sponsored and supported financially by Peking University, Nankai University Institute for Mathematical Sciences, National University of Singapore, and Institute of Advanced Studies, Nanyang Technological University. It is also co-sponsored by the Institute of Mathematical Statistics and IMS-China.

Please contact Professor Dayue Chen (dayue@pku.edu.cn) if you plan to attend the conference. In addition to 25 invited talks, the conference will have a contributed poster session. If you would like to contribute to the poster session, please contact Professor Zhen-Qing Chen (zchen@math.northwestern.edu).

For more information about the conference, please visit the conference website, http://www.math.northwestern.edu/chung2010.

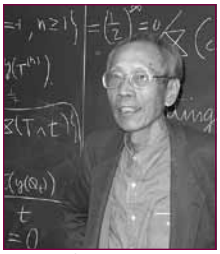
IMS co-sponsored meeting

Seminar on Stochastic Processes 2010
March 11–13, 2010
University of Central Florida, Orlando

w http://math.swansonsite.com/ssp2010/ [new URL]

The Seminar on Stochastic Processes 2010 will be held March 11-13, 2010 at the University of Central Florida in Orlando. Apart from informal presentations by conference participants, there will be plenary talks by five invited speakers: Nathalie Eisenbaum (Université Paris VI), Steve Lalley (Univ of Chicago), Terry Lyons (University of Oxford), Jonathan Mattingly (Duke University), and Benedek Valkó (University of Wisconsin–Madison).

In addition, during part of one afternoon a session will be held honoring the late Kai Lai Chung's mathematical career. Kai Lai Chung was one of the leading probabilists of the second half of the twentieth century and one of the founders of the Seminar on Stochastic Processes. The session will feature some short presentations by Chung's former collaborators and colleagues and will be moderated by Ruth Williams, one of his former students. For further details, please see the above website.



Kai Lai Chung

More IMS meetings around the world

IMS co-sponsored meeting NEW

CRiSM–P@W Workshop: Orthogonal Polynomials, Applications in Statistics and Stochastic Processes
July 12–15, 2010
University of Warwick, UK

w http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/orthogonal-polynomials

The workshop aims to bring together a wide variety of scientists who have made important contributions to the theory and applications of Orthogonal Polynomials, with the purpose of investigating the frontiers of the theory and the possibilities of its extension and further applicability in Statistics and Probability.

Topics that are aimed to be covered include: Canonical correlation analysis for copulae, Spectral analysis of discrete and continuous Stochastic Processes and Hypergroups, Random Matrices and Random Covariance Functions.

Invited speakers who have already accepted our invitation include: Igor Borisov (Sobolev Inst.), Stephen Evans (Berkeley) , Patrik Ferrari (Bonn), Mourad Ismail (UCF), Kshitij Khare (USF), Angelo Koudou (Nancy), Arno Kujilaars (Leuven), Rupert Lasser (Munchen), Gerard Letac (Toulouse), Neil O'Connell (Warwick), Eric Rains (CalTech), Evgeny Strahov (Jerusalem), Pierre Van Moerbecke (Louvain), Michael Voit (Dortmund) Jacek Wesolowski (Warsaw), Ryszard Zswarc (Wroclaw).

To participate, please complete the application form which can be found at the meeting website, where you can also submit a title and an abstract for a contributed talk/poster.

CRiSM aims to provide financial support to encourage the participation of interested career-young academics, PhD students and Postdoctoral Fellows. See the website for more information.

Organisers of the workshop are:

Persi Diaconis diaconis@math.stanford.edu

Bob Griffiths griff@stats.ox.ac.uk

Dario Spanò d.spano@warwick.ac.uk

Jon Warren j.warren@warwick.ac.uk

Nykos Zygouras n.zygouras@warwick.ac.uk

IMS co-sponsored meeting

Statistical Science—Making a Difference
June 3–4, 2010
University of Wisconsin, Madison

w http://www.stat.wisc.edu/Department/50th_Anniversary/50th.html
e 50th@stat.wisc.edu

IMS Representatives on Program Committees: Rich Johnson, Kjell Doksum, Grace Wahba

The Department of Statistics, in collaboration with the larger statistics community on campus at the University of Wisconsin–Madison, is planning a series of events to celebrate the 50th anniversary of its founding and its achievements in making differences in statistics and sciences through both theory/methods and applications/practice.

The main event is the scientific conference with a title "Statistical Science—Making a Difference" to be held during June 3–4, 2010. The conference will highlight major advances and emerging topics in statistical science during the last 25 years or so since the 25th anniversary of the Department of Statistics in 1985.

There will be six sessions, and each 90-minute session with a theme will feature a leading invited speaker followed by other invited and contributed speakers. Each session will have up to four speakers. During the morning and afternoon breaks, there will also be three contributed poster sessions.

IMS co-sponsored meeting

Stochastic Methods in Game Theory
September 8–16, 2010
Erice, Sicily, Italy

w http://space.luiss.it/stochastic-workshop/

IMS Representative on Program Committees: Marco Scarsini

Many decision problems involve elements of uncertainty and of strategy. Most often the two elements cannot be easily disentangled. The aim of this workshop is to examine several aspects of the interaction between strategy and stochastics. Various game theoretic models will be presented, where stochastic elements are particularly relevant either in the formulation of the model itself or in the computation of its solutions.

For more information please send an email to erice2010@luiss.it

IMS co-sponsored meeting

First Announcement: Fourth International IMS/ISBA Joint Meeting "MCMSki III": Markov Chain Monte Carlo in Statistical Science
January 5–7, 2011
The Canyons Resort, Park City, Utah, USA

w http://madison.byu.edu/mcmski/index.html

Following the success of the first three joint international meetings of IMS and ISBA (the International Society for Bayesian Analysis) held in Isla Verde, Puerto Rico, and Bormio, Italy, the fourth such joint meeting will be held at The Canyons in Park City, Utah, USA on January 5–7, 2011. The unifying theme of the conference will be MCMC and its impact on the practice of statistical science in diverse areas, such as genetics, genomics, environmental health, epidemiology, and so on. However, since this is a joint meeting of two diverse organizations, talks on a wide variety of topics (both Bayesian and non-Bayesian) will be presented.

Each day will begin with a 50-minute talk by a plenary speaker, immediately followed by an invited session, then lunch, and then an afternoon break (where skiing/snowboarding will be among the options). Following the break will be another invited session, then dinner and posters; in short, "Valencia style" with ski/spa time replacing the usual beach time. There will also be a pre-conference "satellite" meeting on adaptive and other advanced MCMC methods on January 3–4, with Prof. Christian Robert again serving as lead organizer (see below).

We are very fortunate to have the following three outstanding plenary speakers: Nicky Best, Imperial College London and St. Mary's Hospital; Michael Newton, University of Wisconsin; and Jeffrey Rosenthal, University of Toronto. In addition, the members of the program committee (see below) have assembled an invited program that is as attractive as the conference venue, with sessions on: *Modeling Dependence for High-Throughput Data; Advances in MCMC for Genomics; Bayesian versus Frequentist Approaches in Observational Studies; Environmental Health Statistics;* and *MCMC for Computationally-Intensive Inverse Problems.*

The meeting will take place at the conference center at The Canyons resort, located approximately 40 minutes from Salt Lake City airport and readily accessible by public transport. The airport is a hub for Delta Airlines.

We anticipate obtaining grant support from various federal sources to help subsidize the cost of attending MCMSki III for young investigators (persons within 5 years of receiving PhD) presenting talks or posters at the meeting. In addition, ISBA has committed support for young researchers, with preference to senior/advanced students active in research, and preferentially to students from economically disadvantaged countries.

Further details, including registration fees, hotel accommodation, and social events, are available from the official conference website. Conference registration will be available soon.

All papers presented at the conference (either invited or contributed) will be eligible for publication in the official journal of ISBA, *Bayesian Analysis*, following a refereeing process; see http://ba.stat.cmu.edu for details.

Program Committee:

Conference co-chairs: Brad Carlin, University of Minnesota, and Antonietta Mira, University of Insubria
Local Arrangements Chair: Shane Reese, Brigham Young University
Other members: Clelia DiSerio, Montserrat Fuentes, Sander Greenland, David Higdon, Peter Müller, Giovanni Parmigiani

IMS co-sponsored meeting NEW

AdapSki III, the satellite meeting to MCMSki III
January 3–4, 2011
The Canyons, Park City, Utah, USA

w http://www.maths.bris.ac.uk/~maxca/adapskIII/

IMS Reps: Christophe Andrieu, Christian Robert

This workshop is intended to provide an updated snapshot of the methodological and theoretical advances in Monte Carlo methods with an emphasis on adaptive Monte Carlo methods in the broad sense (adaptive MCMC, adaptive population Monte Carlo, and various breeds of adaptive importance sampling amongst others), that is, algorithms that attempt to automatically optimize their performance to a given task. The workshop will consist of 4 half-day sessions on 3rd and 4th January and one or two poster sessions and will be held at The Canyons. There will be breaks on both afternoons in order to allow both informal discussions and relaxation (skiing!). There will be one or two informal poster sessions. If you would like to present a poster, please submit a short abstract to Christian Robert **e** xian@ceremade.dauphine.fr or Christophe Andrieu **e** c.andrieu@bris.ac.uk. Please note that registration to the workshop is mandatory if you are planning to present a poster.

IMS co-sponsored meeting NEW

Joint Research Conference on Statistics in Quality, Industry, and Technology
May 25–27, 2010
National Institute of Standards and Technology (NIST), Gaithersburg, MD

w http://www.jrc2010.org

The 27th Quality and Productivity Research Conference and the 17th Spring Research Conference on Statistics in Industry and Technology will be held jointly at the National Institute of Standards and Technology in Gaithersburg, Maryland (just outside Washington DC) from May 25-27, 2010.

The program for the conference will be posted through the conference website, where information on how to apply for student scholarships is also posted. The invited component of conference program is almost complete, with plenary speakers and invited sessions on a number of topics ranging from traditional areas in design of experiments, SPC, reliability, to newer topics in environmental research and forensic sciences. The conference will honor Vijay Nair (Michigan) for his contributions to industrial statistics and his leadership role in promoting applied statistics. Other invited speakers will include Steve Fienberg (Carnegie Mellon), Diane Lambert (Google), Brad Jones (SAS), Adrian Raftery (Washington), Haipeng Shen (North Carolina). You are invited to contribute papers for presentation at the conference. Please submit title, authors, and a short abstract to jrc2010cp@nist.gov for consideration. The deadline for abstract submission is March 15, 2010. If you have further questions, please contact Will Guthrie (will.guthrie@nist.gov, **t** 301 975 2854).

IMS co-sponsored meeting NEW

International Workshop in Applied Probability 2010
July 5–8, 2010
Universidad Carlos III de Madrid, Colmenarejo Campus, Spain

w http://www.fundacion.uc3m.es/IWAP2010/Index.html

The aim of this workshop is to bring together and to foster exchanges among scientists working in the applications of probability to any field. Participants are going to be encouraged to submit their contributions to the journal *Methodology and Computing in Applied Probability*, published by Springer. We are planning to publish a book of abstracts of presented articles at the workshop.

The plenary speakers include Paul Embrechts (ETH Zurich), Ricardo Fraiman (Universidad de San Andrés & Universidad de la República), Montse Fuentes (North Carolina State University), Robin Pemantle (University of Pennsylvania), Víctor de la Peña (Columbia University), Michael Steele (University of Pennsylvania) and Mihail Zervos (London School of Economics). The Scientific Program Committee includes leading scientists in diverse areas of research in probability from all over the world, that will ensure a strong and a broad program and participation from scientists from all over the world. Workshop chairs are committed to encourage the participation of young scientists, women and minorities at IWAP and have made progress to achieve this goal.

This workshop will be built on the success of the IWAP 2002 that took place at the University of Simon Bolivar, Caracas, Venezuela, on January 14-17, 2002; IWAP 2004 that was held at the University of Piraeus, Greece on March 22-25, 2004; IWAP 2006 that was held at the University of Connecticut, Storrs, USA; and IWAP 2008 that was held at Université Technologie de Compiègne, France on July 8-11, 2008. IWAP 2008 attracted about 320 researchers form all over the world. IWAP 2002, 2004, 2006 and 2008 were co-sponsored by the Bernoulli Society, the Institute of Mathematical Statistics and Taylor and Francis Group. Universidad Carlos III de Madrid, Colmenarejo Campus, Spain, has a strong group of researchers with expertise in probability and its applications. It has fine facilities to hold the workshop and to house its participants. The local organizing committee includes faculty members of Universidad Carlos III de Madrid.

IMS co-sponsored meeting NEW

IMS Asia Pacific Rim Meetings
July 3–6, 2011
Tokyo, Japan

w TBC

The second IMS Asia Pacific Rim Meetings will take place in OMIYA Sonic City conference hall (http://www.sonic-city.or.jp/modules/english/), Tokyo, Japan during the period Sunday July 3 to Wednesday July 6, 2011. This meeting series provides an excellent forum for scientific communications and collaborations for researchers in Asia and the Pacific Rim. It also promotes communication and collaboration between researchers in this area and those from other parts of the world. The program covers a wide range of topics in statistics and probability, presenting recent developments and the state of the art in a variety of modern research topics and in applications.

For more information, you may contact the program chairs: Byeong U. Park (bupark@stats.snu.ac.kr) and Runze Li (rli@stat.psu.edu). The website of this conference is under construction.

Other Meetings Around the World:
Announcements and Calls for Papers

Sixth International Seminar on Recent Development of Official Statistics
March 18–19, 2010
and
Third One-Day Post-Seminar Workshop on Recent Development in Statistics
March 20, 2010
Khairpur, Pakistan

The Islamic Countries Society of Statistical of Statistical Sciences, ISOSS (www.isoss.com.pk), is organizing this two-day seminar, and one-day post-seminar workshop, on recent developments in official statistics on March 18–20, 2010. The venue is the Department of Statistics, Shah Abdul Latif University, Khairpur Mir's, Pakistan www.salu.edu.pk. Details from the ISOSS website.

Probability at Warwick
Young Researchers Workshop
July 19–23, 2010
University of Warwick, UK

w www.warwick.ac.uk/go/paw/paw2010

The Probability at Warwick Young Researchers Workshop has the principal aim of bringing together young researchers working in probability. It will feature lecture courses by two excellent invited speakers, intended to be accessible to graduate mathematicians and probabilists.

Steve Evans (University of California, Berkeley): Trickle-down growth models, Doob-Martin boundaries, and random matrices.

Martin Hairer (University of Warwick): Regularity and convergence of diffusion processes,

Registration is now open and the deadline for the allocation of subsidized places is May 21, 2010.

Symposium in Probability and Statistics in honor of Charles Stein on his 90th Birthday
March 22, 2010
Stanford University, CA

w http://www2.ims.nus.edu.sg/Programs/010CharlesStein90

Jointly organized by Department of Statistics, Stanford University and the Institute for Mathematical Sciences, National University of Singapore.

Charles Stein (born 22 March 1920) is considered to be one of the most original thinkers who made fundamental contributions to probability and statistics. He has received many honors and awards and is a Member of the National Academy of Sciences (USA). He has given many invited lectures, notably as plenary speaker of the International Congress of Mathematicians, and as the Institute of Mathematical Statistics Wald Lecturer, Rietz Lecturer and Neyman Lecturer. He is now Emeritus Professor of Statistics at Stanford University and continues to be active in research in statistics.

Invited Speakers: Andrew Barbour (University of Zurich); Peter Bickel (University of California, Berkeley); Larry Brown (University of Pennsylvania); Persi Diaconis (Stanford University); Morris L Eaton (University of Minnesota, Minneapolis); Bradley Efron (Stanford University); Carl Morris (Harvard University); David Siegmund (Stanford University)

Stochastic Modeling Techniques and Data Analysis (SMTDA2010)
June 8–11, 2010, Chania, Crete, Greece

w http://www.smtda.net/

The main goal of the Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA2010) is to promote new methods and techniques for analyzing data, in fields like stochastic modeling, optimization techniques, statistical methods and inference, data mining and knowledge systems, computing-aided decision supports, neural networks and chaotic-data analysis. SMTDA aims at bringing together people from both stochastic and data analysis areas. Special attention is given to applications or to new theoretical results having potential of solving real life problems.

The Conference includes topics as: stochastic processes and models, distributions, insurance, stochastic modelling for healthcare management, Markov and semi Markov models, parametric/nonparametric, dynamical systems/forecasting, modeling and chaotic modeling, sampling and optimization problems, control problems and neural networks, data mining, clustering and classification, applications of data analysis and various other applications

The conference includes also two workshops on I) Lifetime Data and II) Innovation Diffusion Modeling. You can also send Abstracts and participate in these events.

We plan to continue the tradition from the previous conferences in the field of stochastic modelling and data analysis which we have organized in Chania and to include the best papers in books devoted to SMTDA2010 conference and special issues of scientific journals.

Your contribution to the conference program with an abstract or paper or even proposing a special session (4–6 papers) would be greatly appreciated.

Other Meetings Around the World

Ninth International Conference on
Ordered Statistical Data and Their Applications
July 11–13, 2010
Zagazig, Egypt

w http://www.stat.osu.edu/~hnn/osda2010.html

The meeting will provide a forum for presentation and discussion of new results on ordered statistical data as well as for reviews of existing literature. It will be devoted to all aspects of order statistics, record statistics, and other ordered/censored data, and their applications.

Contact: H. M. Barakat, hbarakat2@hotmail.com ; H. N. Nagaraja, hnn@stat.osu.edu

Fourth Annual Graduate Student Probability Conference
April 30 – May 2, 2010
Duke University, Durham, NC, USA

w http://www.math.duke.edu/~tkolba/GSPC/

The Graduate Student Probability Conference is organized by a group of graduate students from Duke and UNC-Chapel Hill, under the supervision of Jonathan Mattingly and Amarjit Budhiraja. The conference is a great opportunity for students to give and hear probability talks in a friendly environment. The two keynote speakers will be Professor Robin Pemantle (University of Pennsylvania) and Professor S.R.S. Varadhan (New York University).

Statistical modelling and inference for networks (Statworks)
June 28 – July 1, 2010
Bristol, UK

w http://www.sustain.bris.ac.uk/ws-statworks
e stat-works@bristol.ac.uk

Network structures arise in modelling a wide variety of phenomena in the natural and social sciences, and engineering. As researchers find networks a natural perspective for analysing an ever more diverse set of applications, an almost equally diverse set of a methodologies emerge, ranging from highly-tailored ad hoc solutions to broad attempts to capture the full generality of network inference. In such a new field of exploration, each of these disparate paths contributes to our joint understanding of the scope of network-based models. The aim of this workshop is to gather together statisticians, mathematical modellers and application-oriented researchers, hoping to further this progress by discussing: commonalities of current methodologies; where specific applications might borrow methods from other areas; the contribution that rigorous modelling can make to inference to applied problems; areas where application-specific approaches point the way forward to new theoretical developments; and the identification of methodological gaps.

The workshop will feature about 12 invited speakers, and a contributed and poster programme. Invited speakers: David Barber (UCL); Sanjeev Goyal (Cambridge); Eric Kolaczyk (Boston); Sean Meyn (Illinois); Brendan Murphy (University College Dublin); Stephane Robin (AgroParisTech); Michael Stumpf (Imperial); Stanley Wasserman (Indiana); Geoffrey West (Santa Fe); Eddie Wilson (Bristol).

Deadline for contributed talk or poster: 15 March 2010.

The Seventh International Conference on Mathematical Methods in Reliability
June 20-24, 2011
Beijing Institute of Technology (BIT)

w www.mmr2011.cn

Organizers:

Lirong Cui (PhD, Professor, School of Management Economics, BIT) **e** Lirongcui@bit.edu.cn

N. Balakrishnan (PhD, Professor, McMaster University, Canada) **e** bala@univmail.cis.mcmaster.ca

Guoxiao Yang (PhD, Professor, Depart. of Math, BIT) **e** Yanggx@bit.edu.cn

Multivariate Statistical Analysis Conference
November 8–10, 2010
Lodz, Poland

w http://www.msa.uni.lodz.pl


Zdzisław Hellwig

The scientific programme of MSA 2010 covered a range of statistical problems, such as: multivariate distributions, statistical tests, nonparametric inference, discrimination analysis, Monte Carlo analysis, Bayesian inference. The meeting will honor Zdzisław Hellwig's 85th birthday.

Computer Data Analysis and Modeling: Complex Stochastic Data and Systems
September 7–11, 2010
Belarusian State University, Minsk, Belarus
w http://www.cdam.bsu.by

The conference will provide a forum for researchers and a discussion of the latest results in theory and software of data analysis, statistical modeling and computer simulation, focussing on complex stochastic data and systems, and define ways for further developments in this field. Young researchers will have the possibility to present their results and to get in contact with experienced scientists. The conference is organized by the Belarusian State University, Research Institute for Applied Problems of Mathematics and Informatics, the Institute of Mathematics of the National Academy of Sciences of Belarus, the United Institute of Informatics Problems of the National Academy of Sciences of Belarus, the Belarusian Statistical Association, and the Vienna University of Technology, Institute of Statistics and Probability Theory.

International Conference on Advances in Probability and Statistics Theory and Applications: A celebration of N. Balakrishnan's 30 years of contributions to statistics.
December 28–31, 2011, Hong Kong, China
w http://faculty.smu.edu/ngh/icaps2011.html
e icaps2011@gmail.com

An international conference will be held in Hong Kong as a tribute to the distinguished statistician and global collaborative researcher, Professor N. Balakrishnan, for his 30 years of contribution to Statistics. The conference will feature research topics inspired by the substantial contributions of Prof. Balakrishnan to statistics, in areas such as distribution theory, reliability and lifetime data analysis, censoring methodology, ordered data analysis, etc. It aims to bring together researchers interested in theory as well as applications of probability and statistics to discuss recent developments and to suggest future research directions.

Contact for information: P. S. Chan, The Chinese University of Hong Kong **e** benchan@cuhk.edu.hk; H. K. Tony Ng, Southern Methodist University **e** ngh@mail.smu.edu; H. N. Nagaraja, The Ohio State University **e** hnn@stat.osu.edu

11th International Meeting on Statistical Climatology
July 12–16, 2010
Edinburgh, Scotland.
w http://cccma.seos.uvic.ca/imsc/11imsc.shtml

11IMSC will be the latest in a series of meetings that have been held at roughly three-year intervals and are designed to promote good statistical practice in the atmospheric and climate sciences and in maintaining and enhancing the lines of communication between the atmospheric and statistical science communities. The key themes for this IMSC will include analysis techniques for multi-model ensembles of climate simulations, understanding recent climate change and predicting the near-term future, extreme events, predictions of climate change relevant for impacts, reconstructing and understanding climate change over the Holocene, and broadly statistical methods for the analysis of climate data.

For additional information, please contact the program chairperson, Prof. Gabriele Hegerl (e-mail: Gabi.Hegerl@ed.ac.uk) or consult the meeting web page.

ITI 2010 32nd International Conference on Information Technology Interfaces
June 21–24, 2010, Cavtat, Dubrovnik, Croatia
w http://iti.srce.hr/

The aim of the Conference is to provide the opportunity for researchers from different fields of information and communication technology to exchange and communicate the new ideas, problems, approaches and solutions. Special 2010 Topic: *Language Technologies: An Infrastructure for Information Society*. Other topics: *Networking, Grids, Middleware and Distributed Platforms; Business Intelligence, Information Systems and Databases; Knowledge Management and Collaboration Systems; Human Computer Interaction; Technology Enhanced Learning; Information Technology in Business and Government; Data Mining, Statistics and Biometrics; Modeling, Simulation and Optimization; Theory of Computing, Computing Methodologies and Software Engineering.*

The scientific program includes keynote lectures by eminent international experts, contributed papers and posters, tutorials/workshops and roundtable discussions. Papers accepted by two independent reviewers are published in the Conference Proceedings which is included in the IEEE Conference Publication Program and abstracted in the INSPEC database. Keynote lecturers (preliminary list): Michael Goul, Arizona State University, USA; Harold Thimbleby, Swansea University, UK; Jean Underwood, Nottingham Trent University, UK; Michael Witbrock, Cycorp, Inc., Austin, Texas, USA; Peter Wittenburg, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands.
We invite you to submit original research papers and poster presentations. Student papers, workshop and panel proposals on challenging topics are encouraged. Certificate and prize for Best Student Paper will be awarded.
Concurrent meeting: Biostat Symposium 2010: see http://iti.srce.hr/

Employment Opportunities around the world

United Kingdom: Durham

Durham University

Shaped by the past, creating the future

Department of Mathematical Sciences

Reader/Lecturer in Statistics

You will have an excellent research record in an area of Statistics as appropriate for the level for which you apply; preference may be given to candidates whose research areas are compatible with existing interests of the Statistics Group. You will be expected to make a substantial commitment to the research activities of the Statistics Group, and to undertake teaching and administrative duties as assigned by the Head of Department of Mathematical Sciences. For appointment as Reader, candidates must have a substantial record of excellent publications at an internationally leading level, experience with postgraduate supervision and substantial teaching experience at University level, and a record of successful generation of external funding for research projects is highly desirable. For appointment as Lecturer at Grade 8 candidates need to provide evidence of relevant teaching experience at University level and a significant record of publications at international level.

Closing date: 19 March 2010 **Ref: 3614/IMS**

Further details and an application form are available on our website: https://jobs.dur.ac.uk; tel: +44(0)191 334 6499; fax: +44(0)191 334 6504.

United States: Pittsburgh, PA

Carnegie Mellon University

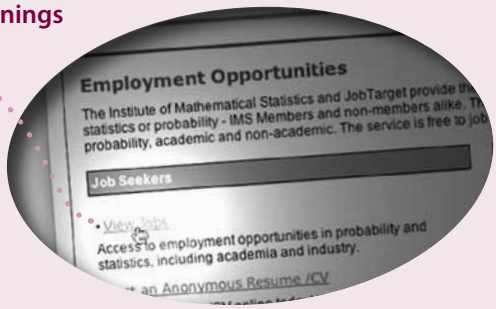
Applications are invited for possible tenure-track, lecturer, and visiting positions. Carnegie Mellon offers a collegial faculty environment, emphasizing a combination of disciplinary and cross-disciplinary research and teaching. All areas of statistics are welcome, and joint appointments with other units in the Pittsburgh area are possible. We especially encourage women and minorities to apply. Details at http://www.stat.cmu.edu (email: hiring@stat.cmu.edu). Application screening begins immediately and continues until positions closed.

Send CV, research papers, relevant transcripts and three letters of recommendation to: *Chair, Faculty Search Committee, Department of Statistics, Carnegie Mellon University, Pittsburgh, PA 15213, USA*. AA/EOE.

Our online job boards allow employers and job seekers to have the most up-to-date information at their fingertips. The service is free to job seekers. To search job openings online, log on to http://jobs.imstat.org and click on "View Jobs"

If you have a job to advertise, go to the same webpage and click on "Post a Job". A single 45-day online job posting costs just $195.00, and we also include the basic information about your job ad here in the *IMS Bulletin* at no extra charge.

The advertising service is open to all employers in the area of statistics and probability, both academic and non-academic.



Australia: Melbourne, Victoria

Monash University
Lecturer/Senior Lecturer (Statistics)
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6416025

Austria: Vienna

WU (Vienna University of Economics and Business)
Full Professor of Applied Statistics and Econometrics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6465898

Canada: Ottawa, ON

University of Ottawa
Canada Research Chair (CRC) in Biostatistics (Tier 2)
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6478576

Chile: Santiago

Pontificia Universidad Católica de Chile, Department of Statistics
Professor of Statistics
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6446379

United States: Chicago, IL

University of Chicago, Department of Health Studies
Biostatistics Faculty
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6429165

United States: Raleigh, NC

North Carolina State University
Teaching Assistant Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6478610

United States: Edison, NJ

Retail Decisions, Inc.
Senior Risk Analyst
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6423207

United States: Piscataway, NJ

Rutgers University, Department of Statistics & Biostatistics
Assistant Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6270882

United States: Albuquerque, NM

Sandia National Laboratories
Statistics on Complex Networks R&D
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6331686

United States: Binghamton, NY

Binghamton University
Visiting Assistant/Associate Professor
http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=6433103

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Articles

Correction

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International Calendar of Statistical Events

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

March 2010

March 2–5: Leipzig, Germany. **9th German Open Conference on Probability and Statistics. w** http://www.gocps-leipzig2010.com/

IMS March 11–13: Florida. **Seminar on Stochastic Processes 2010 w** http://depts/washington.edu/ssproc/

IMS March 17–20: University of Texas at San Antonio. **Frontier of Statistical Decision Making and Bayesian Analysis: in honor of James O. Berger. w** http://bergerconference2010.utsa.edu/

NEW March 18–20: Khairpur, Pakistan. **Seminar** and **Post-Seminar Workshop on Recent Development in Official Statistics. w** www.isoss.com.pk

IMS March 21–24: Hyatt Regency New Orleans, Louisiana. **2010 ENAR/IMS Spring Meetings.** IMS Program Chairs: Marie Davidian and Hao Helen Zhang **w** www.enar.org/meetings.cfm

NEW March 22: Stanford University, CA. **Symposium in Probability and Statistics in honor of Charles Stein on his 90th Birthday. w** http://www2.ims.nus.edu.sg/Programs/010CharlesStein90

March 23-26: Dortmund, Germany. **2nd Joint Statistical Meeting of Statisticians DAGStat 2010 "Statistics under one umbrella" w** http://www.statistik.tu-dortmund.de/DAGStat2010/en/

March 25–26: Department of Statistics, Texas A & M University. **Conference on Resampling methods and High Dimensional Data. w** http://www.stat.tamu.edu/Spring-Conf-2010/index.html

March 26–27: The University of Chicago, Illinois, USA. **Third Midwest Statistics Research Colloquium w** http://www.stat.uchicago.edu/Midwest/2010/

NEW IMS March 29–30: Champaign, Illinois **2010 UIUC Statistics Symposium. w** http://www.stat.uiuc.edu/alumni/sympos.html

April 2010

April 11–13: Cornell University, Ithaca, NY. **Stochastic Analysis and Mathematical Physics: Conference in honor of Len Gross. w** http://www.math.ucsd.edu/~bdriver/LGC09/index.htm

April 14–17: Biskra, Algeria. **International Workshop on Multivariate Risks and Copulas w** http://www.univ-biskra.dz/manifestations/math/stat_2010

April 16–17: Harvard, Cambridge, MA. **The 24th New England Statistics Symposium w** http://www.stat.harvard.edu

NEW April 30 – May 2: Duke University, Durham, NC. **Fourth Annual Graduate Student Probability Conference. w** http://www.math.duke.edu/~tkolba/GSPC/

May 2010

IMS May 13–15: Sardinia. **AISTATS2010 (Artificial Intelligence and Statistics) w** www.aistats.org

May 19–22: Columbus, Ohio. **Conference on Nonparametric Statistics and Statistical Learning. w** www.stat.osu.edu/~nssl2010/

May 20–21: University of Waterloo, Canada. **Statistical Methods and Life History Analysis: A Conference in Celebration of the Contributions of Jack Kalbfleisch and Jerry Lawless to the Statistical Sciences w** http://www.stats.uwaterloo.ca/statconf2010

May 20–22: Pittsburgh, PA. **Statistical Analysis of Neural Data (SAND5). w** http://sand.stat.cmu.edu

May 23–26: Québec City, Canada. **2010 SSC Annual Meeting.** Local Arrangements: Thierry Duchesne (Laval); Program: Christian Léger (Montréal) **w** www.ssc.ca/main/meetings_e.html

NEW IMS May 25–27: National Institute of Standards and Technology (NIST), Gaithersburg, MD. **Joint Research Conference on Statistics in Quality, Industry, and Technology. w** http://www.jrc2010.org

May 26–28: Dakar, Sénégal. **Conference on Applied Statistics and Probability for Africa Development (ASPAD II)** and **Constitutive Assembly of the Statistical Pan African Society** (May 26, 2010, Saint-Louis, Sénégal) **w** http://www.statpas.org/ang/spada2.php

IMS May 30 – June 1: University of Warwick, UK. **CRiSM Workshop on Model Uncertainty. w** http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/model-uncertainty/

June 2010

IMS June 3–4: University of Wisconsin, Madison. **Statistical**

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International Calendar *continued*

June 2010 continued

Science—Making a Difference **e** 50th@stat.wisc.edu **w** http://www.stat.wisc.edu/Department/50th_Anniversary/50th.html

June 3–4: Clamart, Paris, France. **Workshop on Industry & Price Forecasting (WIPFOR)** **e** wipfor@edf.fr **w** http://www.wipfor.org

June 3–6: Samos, Greece. **6th Conference in Actuarial Science & Finance.** **w** http://www.actuar.aegean.gr/samos2010/

July 5–7: Québec, Canada. **Water2010.** **w** http://www.water2010.org/index.html

June 5–8: Shanghai Finance University, China. **19th International Workshop on Matrices and Statistics (IWMS 2010).** **w** www1.shfc.edu.cn/iwms/index.asp

June 5–12: McGill University, Canada. **Summer School in Statistics and Probability** **w** http://www.math.mcgill.ca/probability_and_statistics/school

NEW June 8–11: Chania, Crete. **Stochastic Modeling Techniques and Data Analysis (SMTDA2010).** **w** http://www.smtda.net/

June 10–12: National Taiwan University, Taipei, Taiwan. **2010 International Symposium on Financial Engineering and Risk Management (FERM2010)** **e** ferm2010.prog@gmail.com or ferm2010.local@gmail.com **w** http://www.fin.ntu.edu.tw/~ferm2010/

IMS June 13–16: Peking University, China. **From Markov Processes to Brownian Motion and Beyond: International Conference in Memory of Kai Lai Chung.** **w** TBC

June 14–17: Voss, Norway. **23rd Nordic Conference on Mathematical Statistics (NORDSTAT 2010).** **w** www.nordstat2010.org

June 16–18: Bristol, UK. **Sparse structures: statistical theory and practice** **w** http://www.sustain.bris.ac.uk/ws-sparsity/

June 16–18: Padua, Italy. **45th Scientific Meeting of the Italian Statistical Society.** **w** http://www.sis-statistica.it/meetings/index.php/sis2010/sis2010

IMS June 20–23: Seattle, Washington. **2010 WNAR/IMS Meeting** **w** www.wnar.org

NEW June 21–24: Cavtat, Croatia. **32nd International Conference on Information Technology Interfaces.** **w** http://iti.srce.hr/

June 21 – July 10: Seattle, Washington. **PIMS 2010 Summer School in Probability** **w** http://pims2010.web.officelive.com/default.aspx

NEW June 28 – July 1: Bristol, UK. **Statistical modelling and inference for networks (Statworks).** **e** stat-works@bristol.ac.uk **w** http://www.sustain.bris.ac.uk/ws-statworks

June 28 – July 2: Prague, Czech Republic. ICORS10. **w** http://icors2010.karlin.mff.cuni.cz

June 29 – July 1: Palmerston North, New Zealand. **International Conference on Probability Distributions and Related Topics in conjunction with NZSA Conference.** **w** http://nzsa_cdl_2010.massey.ac.nz/

July 2010

NEW IMS July 5-8: Universidad Carlos III de Madrid, Colmenarejo Campus, Spain: **International Workshop in Applied Probability 2010.** **w** http://www.fundacion.uc3m.es/IWAP2010/Index.html

July 5–9: Slovenia. **ISBIS-2010, International Symposium for Business & Industrial Statistics.** Contact Milena Zeithamlova **e** Milena@action-m.com **w** www.action-m.com/isbis2010

July 6–8: Leeds, UK. **LASR 2010: High-Throughput Sequencing, Proteins and Statistics.** **e** workshop@maths.leeds.ac.uk **w** http://www.maths.leeds.ac.uk/lasr2010/

NEW IMS July 10–12: Renmin University of China, Beijing, China. **International Conference on Statistics and Society.** **w** http://stat.yale.edu/Conferences/ICSS2010/index.html

NEW July 11–13: Zagazig, Egypt. **Ninth International Conference on Ordered Statistical Data and Their Applications.** **w** http://www.stat.osu.edu/~hnn/osda2010.html

July 11–16: Ljubljana, Slovenia. **ICOTS08: Data and context in statistics education: towards an evidence-based society.** **w** http://icots8.org/

NEW IMS July 12–15: University of Warwick, UK. **CRiSM–P@W Workshop: Orthogonal Polynomials, Applications in Statistics and Stochastic Processes.** **w** http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/orthogonal-polynomials

NEW July 12–16: Edinburgh, Scotland. **11th International Meeting on Statistical Climatology.** **w** http://cccma.seos.uvic.ca/

imsc/11imsc.shtml

July 12-23: SAMSI, Research Triangle Park, NC. **2010 Summer Program on Semiparametric Bayesian Inference: Applications in Pharmacokinetics and Pharmacodynamics w** http://www.samsi.info/programs/2010bayes-summer-program.shtml

 July 18–31: Ithaca, NY. **Sixth Cornell Probability Summer School. w** http://www.math.cornell.edu/~durrett/CPSS2010/

NEW July 19–23: University of Warwick, UK. **Probability at Warwick: Young Researchers Workshop. w** www.warwick.ac.uk/go/paw/paw2010

July 20–23: Leicester, UK. **Accuracy 2010: Ninth International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences w** http://www.accuracy2010.org/

July 26–30: Dresden, Germany. **6th International Conference on Lévy Processes: Theory and Applications. w** www.math.tu-dresden.de/levy2010

 July 27–30: Vancouver, Canada. **13th North American Meeting of New Researchers in Statistics and Probability.** Contact Samiran Sinha **e** sinha@stat.tamu.edu

July 27–31: Tomar, Portugal. **LinStat2010.** Francisco Carvalho: **t** +351 249 328 100; **f** +351 249 328 186; **e** fpcarvalho@ipt.pt **w** www.linstat2010.ipt.pt

July 28–30: Seattle, Washington. **From Probability to Statistics and Back: High-Dimensional Models and Processes Conference w** http://www.stat.washington.edu/events/jaw-conf-2010/index.html

 July 31–August 5: Vancouver, British Columbia, Canada. **JSM2010. w** www.amstat.org/meetings/jsm/2010/

August 2010

August 8–13: Maresias, Brazil. **7th Conference on Multivariate Distributions with Applications w** http://www.ime.usp.br/~mda

 August 9–13: Gothenburg, Sweden. **IMS Annual Meeting 2010. w** www.ims-gothenburg.com

NEW  August 9–13: Chicago, IL, USA. **Recent Advances in the Numerical Approximation of Stochastic Partial Differential Equations. w** http://mypages.iit.edu/~duan/SPDE2010.html

August 13–17: Indian Statistical Institute, Bangalore, India. **Conference on Probability and Stochastic Processes** *[Satellite to ICM2010]* **w** http://www.isibang.ac.in/~statmath/icmprobsat/

NEW  August 16–20: Santa Cruz, CA, USA. **Bayesian Nonparametric Statistical Methods: Theory and Applications. w** www.ams.ucsc.edu/CBMS-NPBayes

August 17–18: Hyderabad, India. **ICWM 2010: International Conference of Women Mathematicians** *[Satellite to ICM2010]* **w** http://www.icm2010.org.in/icwm2010.php

August 17–22: University of Piraeus, Greece. **European Meeting of Statisticians 2010. w** http://stat.unipi.gr/ems2010

August 19–27: Hyderabad, India. **International Congress of Mathematicians 2010.** Program Committee Chair: Prof. Hendrik W. Lenstra, Leiden University **w** http://www.icm2010.org.in/

August 22-27: Paris, France. **COMPSTAT 2010: 19th International Conference on Computational Statistics. w** http://www.compstat2010.fr/

August 30 – September 3: Prague, Czech Republic. **Prague Stochastics 2010. e** pragstoch@utia.cas.cz **w** www.utia.cas.cz/pragstoch2010

September 2010

 September 6–10: Osaka, Japan. **34th Stochastic Processes and their Applications. w** http://stokhos.shinshu-u.ac.jp/SPA2010/

NEW September 7–11: Belarusian State University, Minsk, Belarus. Computer Data Analysis and Modeling: Complex Stochastic Data and Systems **w** http://www.cdam.bsu.by

 September 8–16: Erice, Sicily, Italy. **Stochastic Methods in Game Theory. w** http://space.luiss.it/stochastic-workshop/

September 29 – October 2: São Pedro do Sul, Portugal. **XVIII Annual Congress of the Portuguese Statistical Society w** http://www.mat.uc.pt/~spe2010

November 2010

NEW November 8–10: Lodz, Poland. **Multivariate Statistical Analysis Conference. w** http://www.msa.uni.lodz.pl

Continues on **page 38**

International Calendar *continued*

December 2010

December 19–22: Guangzhou University, Guang-Zhou, China. **2010 ICSA International Conference. w** tba

NEW December 24–25: Xiamen University, Fujian, P.R. China. **International Workshop on Emerging Issues and Challenges to Statistics. w** http://www.southalabama.edu/iweics/

January 2011

NEW January 3–4: Park City, Utah, USA **AdapSki III, the satellite meeting to MCMSki III. w** http://www.maths.bris.ac.uk/~maxca/adapskIII/

January 5–7: Park City, UT. **MCMSki III: Markov Chain Monte Carlo in Theory and Practice w** http://madison.byu.edu/mcmski/

March 2011

March 20–23: Hyatt Regency Miami, FL. **2011 ENAR/IMS Spring Meetings. w** http://www.enar.org/meetings.cfm

June 2011

June 12–15: Wolfville, Nova Scotia, Canada. **2011 SSC Annual Meeting w** TBC

June 19–25: Oaxaca, Mexico. **35th Conference on Stochastic Processes and their Applications. w** TBC

NEW June 20-24: Beijing Institute of Technology, China. **Seventh International Conference on Mathematical Methods in Reliability. w** www.mmr2011.cn

July 2011

NEW July 3–6: Tokyo, Japan. **IMS Asia Pacific Rim Meetings. w** TBC

July 11–22: Ithaca, NY. **7th Cornell Probability Summer School. w** tba

July 30 – August 4: Miami Beach, Florida. **IMS Annual Meeting at JSM2011.**

December 2011

NEW December 28–31: Hong Kong, China. **International Conference on Advances in Probability and Statistics Theory and Applications: A celebration of N. Balakrishnan's 30 years of contributions to statistics. e** icaps2011@gmail.com **w** http://faculty.smu.edu/ngh/icaps2011.html

April 2012

April 1–4: Washington DC, USA. **2012 ENAR/IMS Spring Meetings. w** http://www.enar.org/meetings.cfm

June 2012

June 3–6: Guelph, Ontario, Canada. **2012 SSC Annual Meeting w** TBC

July 2012

July 29 – August 2: San Diego, California. **JSM2012.**

July 9–14: Istanbul, Turkey. **IMS Annual Meeting 2012 in conjunction with 8th World Congress in Probability and Statistics. w** http://home.ku.edu.tr/~worldcong2012/

August 2013

August 3–8: Montréal, Canada. **IMS Annual Meeting at JSM2013. w** TBC

July 2014

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

August 2014

August 2–7: Boston, MA. **JSM2014.**

Membership and Subscription Information

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

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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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Issue	Deadline for advertisement	Usually online by	Scheduled mail date
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2: March	***February 1***	February 15	March 1
3: April	***March 1***	March 15	April 1
4: May	***April 1***	April 15	May 1
5: June	***May 1***	May 15	June 1
6: July	***June 1***	June 15	July 1
7: August/September	***July 1***	July 15	August 1
8: October	***September 1***	September 15	October 1
9: November	***October 1***	October 15	November 1
10: December	***November 1***	November 15	December 1

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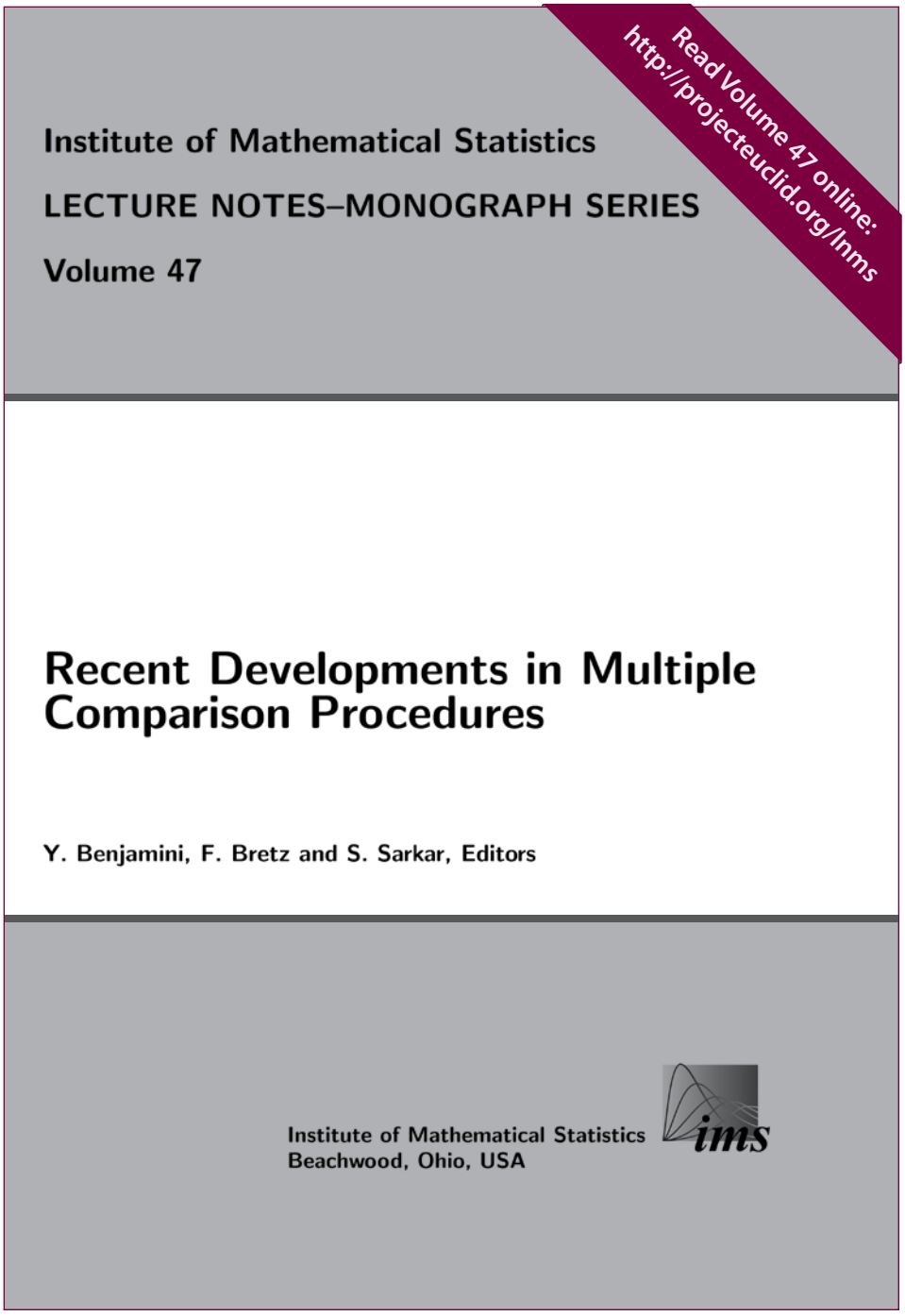

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Meeting reports, news of members, information and announcements about conferences, and jobs around the world.

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March 1, then April 1

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