IMS Bulletin



August/September 2008

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IMS Election results

We are pleased to announce the results of the IMS Council elections. The new IMS President-Elect is J. Michael Steele, who is C. F. Koo Professor of Statistics at the Wharton School, University of Pennsylvania.

The five newly-elected Council Members are:

Peter Hall, Professor, Department of Mathematics and Statistics, University of Melbourne; and the University of California, Davis;

Bruce G. Lindsay, Willaman Professor and Department Head, Department of Statistics, Pennsylvania State University;

Michael Newton, Professor, Departments of Statistics and of Biostatistics and Medical Informatics, University of Wisconsin, Madison;

Jane-Ling Wang, Professor, Department of Statistics, University of California at Davis; and

Bin Yu, Professor, Department of Statistics and Department of Electrical Engineering & Computer Science, University of California at Berkeley. These six take up their positions at the IMS annual meeting in Singapore.

Serving on council from 2006-09 are Martin Barlow, Frank Den Hollander, Iain Johnstone, Karen Kafadar, and Xiao-Li Meng. Serving on council from 2007-10 are Montse Fuentes, Geoffrey Grimmett, Maria Eulalia Vares, Jon Wellner, and Alan Welsh. We thank outgoing council members for this year (Maury Bramson, Merlise Clyde, John H.J. Einmahl, Jun Liu, and Daniel Peña) for your service over the past three years!

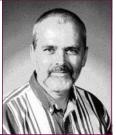
J. Michael Steele > President-Elect



■ Peter Hall Council member



Bruce Lindsay ► Council member



Council member



Jane-Ling Wang ► Council member



◄ Bin Yu Council member

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Contact information

IMS Bulletin Editor: Xuming HeAssistant Editor: Tati Howell

Contributing Editors: Peter Bickel, Louis Chen, Rick Durrett, Nicole Lazar, Terry Speed

To contact the IMS Bulletin:

IMS Bulletin20 Shadwell, Uley, DursleyGL11 5BWUK

e bulletin@imstat.org

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

- IMS Dues and Subscriptions Office
 9650 Rockville Pike, Suite L2407A
 Bethesda
 MD 20814-3998
 USA
- t 301.634.7029
- **f** 301.634.7099
- e staff@imstat.org

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

- Executive Director, Elyse Gustafson
 IMS Business Office
 PO Box 22718
 Beachwood
 OH 44122
 USA
- t 216.295.2340
- **f** 216.295.5661
- e erg@imstat.org

Executive Committee

President: Jianging Fan

president@imstat.org

President-Elect: Nanny Wermuth

president-elect@imstat.org

Past President: Jim Pitman

president-past@imstat.org

Executive Secretary: Cindy Christiansen

cindylc@bu.edu

Treasurer: Rong Chen

rongchen@stat.rutgers.edu

Program Secretary: Guenther Walther

walther@stat.stanford.edu

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IMS Members' News

B.L.S. Prakasa Rao wins Indian Government's P.V. Sukhatme Award

Professor B.L.S. Prakasa Rao, Jawaharlal Nehru Chair Professor at the Department of Mathematics and Statistics, University of Hyderabad, India, has been selected for the National Award in Statistics for Senior Statistician in memory of Prof. P.V. Sukhatme for 2007–08. The Government of India's Ministry of Statistics & Programme Implementation instituted the national award for outstanding and meritorious research work in statistics in memory of Prof. P.V. Sukhatme. The main objective of this award is to encourage independent and high quality research work in the field of applied/official statistics, particularly on issues and problems relating to the statistical system in the country. The award is given for lifetime contribution to the development of statistical system in the field of applied/official statistics. The award carries an amount of 1 lakh rupees (100,000Rs—equivalent to about two months' salary of a Full Professor in India) along with a citation. B.L.S. Prakasa

Rao has made outstanding contributions in the area of applied statistics, particularly in inference for stochastic processes, asymptotic theory of statistical inference and nonparametric estimation. Among his popular books are Statistical Inference for Stochastic Processes, Nonparametric Functional Estimation, Asymptotic Theory of Statistical Inference, Semimartingales and their Statistical Inference and Statistical Inference for Diffusion Type Processes.

Joseph Glaz receives AAUP Excellence in Research Award

Joseph Glaz, Professor of Statistics, University of Connecticut, received the American Association of University Professors 2008 Excellence in Research award. He has also been appointed Associate Department Head and Director of Graduate Programs of the University of Connecticut Department of Statistics.

Jeff Wu and J.N.K. Rao receive Honorary Doctor of Mathematics degree

At its ninety-sixth Convocation on June 13, 2008, the University of Waterloo awarded honorary Doctor of Mathematics degrees to two statistical scientists. Professor C.F. Jeff Wu, Coca Cola Chair in Engineering Statistics at the Georgia Institute of Technology, was honored for his pathbreaking contributions to the design of experiments in industry and manufacturing design. Professor Wu had held the GM/ NSERC Chair in Quality and Productivity at Waterloo from 1988 to 1993. Professor J.N.K. (Jon) Rao, Distinguished Research Professor of Carleton University, was celebrated for his fundamental contributions to the theory of survey sampling, and its practice by government agencies and research organizations. Through their work and their students, both have had a profound impact on statistics internationally.



receive their University of Waterloo honorary degrees

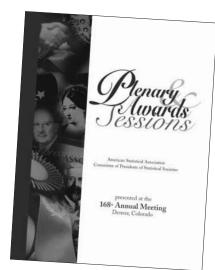


ASA Awards at JSM

ASA Awards presented at JSM in Denver

The American Statistical Association's Samuel S. Wilks Award, one of the ASA's most prestigious, was established in 1964 to honor the memory and distinguished career of Samuel S. Wilks by recognizing outstanding contributions to statistics that carry on in the spirit of his work. Scott Zeger, Johns Hopkins University, is awarded the 2008 Samuel S. Wilks medal for outstanding contributions to statistics.

The Noether Awards were established in 1999 as a tribute to Gottfried Emanuel Noether, who died on August 22, 1991, in Windham, Connecticut. His wife, Emiliana Noether, and



daughter, Monica Noether, presented the ASA with an endowment fund to recognize distinguished researchers and teachers and to support research in the field of nonparametric statistics. The Gottfried E. Noether Senior Scholar Award, for outstanding contributions to the theory and applications of nonparametric statistics, is awarded to Madan L. Puri, Indiana University. The Noether Young Researcher Award, for outstanding early career contributions to nonparametric statistics, is awarded to Donglin Zeng, University of North Carolina.

The ASA Award of Outstanding Statistical Application is made to Tian Zheng, Matthew J. Salganik, and Andrew Gelman in recognition of their paper, "How Many People Do You Know in Prison?" (*JASA*, June 2006) using overdispersion in count data to estimate social structure in networks; a method for learning about small, hard-to-reach subpopulations, and social network structure from non-network samples.

The W. J. Youden Award in Interlaboratory Testing is made to Andrew L. Rukhin, University of Maryland, and William E. Strawderman, Rutgers University, in recognition of their paper, "Statistical Aspects of Linkage Analysis in Interlaboratory Studies," published in the *Journal of Statistical Planning and Inference*, 2007.

Michelle Quinlan, University of Nebraska, Lincoln, received an Honorable Mention in the Gertrude M. Cox Scholarship in Statistics Award.

Project Euclid feeds

Project Euclid (http://projecteuclid.org) now offers RSS2.0 and Atom News Feeds for journals. Individual feeds are updated whenever a new journal issue or monograph is loaded.

For more information and to subscribe, please see http://projecteuclid.org/DPubS?Service=UI&version=1.0&verb=Display&handle=euclid&page=feeds

Alternatively, you can click on the orange RSS logo (pictured, right) in the upper right corner of any page on the Project Euclid website.



IMS Editors

IMS Journals and Publications

Annals of Statistics: Susan Murphy & Bernard Silverman http://imstat.org/aos/

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

Annals of Probability: Gregory Lawler http://imstat.org/aop/

Annals of Applied Probability: Edward Waymire 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: Larry Wasserman http://imstat.org/ejs/

Electronic Journal of Probability: Andreas Greven http://www.math.washington.edu/~ejpecp/

Electronic Communications in Probability: David Nualart 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: Jon Wellner http://imstat.org/ss/ Probability Surveys: David Aldous http://imstat.org/ps/

IMS Supported Journals

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

Bayesian Analysis: Brad Carlin http://ba.stat.cmu.edu/

Bernoulli: Holger Rootzén http://isi.cbs.nl/bernoulli/

Brazilian Journal of Probability and Statistics: Silvia Ferrari http://www.redeabe.org.br/bjps.htm

IMS Affiliated Journals

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

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

Other IMS contacts

IMS website: Krzysztof Burdzy http://imstat.org

Managing Editor: Michael Phelan phelanm@uci.edu

Production Editor: Patrick Kelly pkelly@wharton.upenn.edu

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Profile: Richard Johnson, Carver Award

Kjell Doksum and Kam Tsui, both faculty members in the Statistics Department at the University of Wisconsin-Madison, write: Richard A. Johnson, Professor in the Department of Statistics at the University of Wisconsin-Madison, will receive the 2008 IMS Carver Medal. The presentation will take place July 14, 2008 at a special



ceremony at the IMS Annual Meeting in Singapore.

Professor Johnson receives the award for "exemplary service and patient wisdom in the creative administration and guidance of IMS programs in different roles over two decades". The major components of his service to IMS are as IMS Program Secretary, 1980-86 (helped choose meeting sites, appointed program chairs, and generally oversaw the development of each meeting's program); and as IMS Associate Program Secretary for the Central Region, 1972-80 (scheduled contributed paper sessions, appointed session chairs, and coordinated with local organizers). Kjell Doksum, who served as IMS Executive Secretary 1981-84, said Richard Johnson was "instrumental in arranging outstanding meetings during his tenure as Program Secretary." In addition, Richard Johnson served on several IMS committees: Program Committee for 1972, 1987, 1988, and 1991; Committee on Nominations 1993-94; Committee on Publications 1981–86 (ex-officio); Committee on Special Lectures 1982–84; Committee on Travel Awards 1993–95 (Chair 1995).

Richard is co-editor, with John Crowley, of the IMS Lecture Notes-Monograph, No. 2, Survival Analysis (1982), a collection of papers from a special-topic IMS meeting. Johnson has also coauthored six textbooks. The best known is the highly cited Applied Multivariate Statistical Analysis, with Dean Wichern, which is in its sixth edition and is used throughout the world. Statistics—Principles and Methods, with G. K. Bhattacharya, is in the fifth edition, and he has revised Probability and Statistics for Engineers, by I. Miller and J. Freund, for the fourth through seventh edition. His books have been translated into several languages. In 1991 Richard Johnson and his student Chris Morrell were awarded the Frank Wilcoxon Award for best applications paper in Technometrics.

Professor Richard Johnson has been teaching at UW-Madison for 42 years. He joined UW-Madison in 1966, when George Box was the chair. Richard was chair of the department 1981-84. During those years, he helped build up the department by recruiting David DeMets, Wei-Yin Loh, Martin Tanner and Brian Yandell. Richard also served the Department of Statistics by performing more than his share of department duties. The outstanding department seminar series was a notable contribution.

Richard Johnson's contributions to the profession did not stop with the IMS. He has served on the Council for the American Statistical Association, ten years on the editorial board of the Journal of the American Statistical Association, and several committees. He is founding editor of the international journal Statistics and Probability Letters (SPL) and served as Chief Editor for 25 years. Journals are difficult to start and this one has become very successful and highly regarded worldwide. Frank Samaniego, who served as IMS Executive Secretary when Richard was Program Chair, said, "Richard Johnson has made many contributions to the Statistics profession, but perhaps his greatest and most lasting contribution was his vision regarding the possibility of the review of technical research papers in the field in a manner that was both authoritative and efficient. This vision was realized through the publication of a new journal, Statistics and Probability Letters [which] has become known for its consistent quality, but is also unique in the field in terms of the turn-around time with which it handles submitted papers. The authors of most papers submitted to SPL receive an initial review within two months, in sharp contrast with the 4-6 month window that is common in the field. The journal proved that quality and deliberate speed were indeed compatible in the review of technical work in statistical science. In this regard, it has served as a model for other journals and other editors, and has had positive effect across the field. We owe Richard Johnson a debt of gratitude for his leadership in this area and for his generous and dedicated service."

At a conference in May, Professor Johnson was presented an award by James Evans, United States Forest Products Laboratory, "for 30 years of collaborative research leading to advances in statistical methodology that significantly enhanced the Forest Products Laboratory's research effort".

His technical publications number over 120 and include over a dozen in the Annals of Statistics. They span a wide range of topics marked by contributions to asymptotic expansions, contiguity theory, nonparametric statistics, reliability, multivariate statistics, Bayesian statistics, and time series analysis. One of his very wellcited papers is "Asymptotic Expansions Associated with Posterior Distributions" published in The Annals of Mathematical Statistics, Vol. 41, No. 3, (1970), pp. 851–864

He is a fellow of the IMS and of the ASA. With his textbooks, journal editorship, and publications, he has had a major impact on teaching, research and the statistics profession generally. Richard Johnson is interested in promoting statistics internationally. He has traveled the world and given technical talks in 22 countries and enjoys meeting with statisticians everywhere.

New Pfizer Colloquia films of Barbara Bailar

The Pfizer Global Research and Development at New London, Connecticut, the Department of Statistics at the University of Connecticut-Storrs, and the American Statistical Association (ASA) continue jointly to sponsor the prestigious series, Pfizer Colloquia by Distinguished Statisticians. Professor Nitis Mukhopadhyay from the University of Connecticut, Storrs, directs this project. He writes:

Dr. Barbara A. Bailar, formerly from National Opinion Research Center at the University of Chicago and the U.S. Bureau of Census, was chosen as the 21st Pfizer Colloquium presenter in the Department of Statistics, University of Connecticut-Storrs. She presented a colloquium titled The Evolving American Census (duration: approximately 54 minutes) in honor of Dr. David S. Salsburg. The presentation was professionally filmed on November 2, 2007, for safe-keeping in the archive of the American Statistical Association.

In this film, Dr. Bailar eloquently explains how the American census has developed in depth and breadth since its inception. In the very beginning, the census was taken by the marshals when the "only technology was pen and paper". The modern census requires enormous administrative and computing infrastructures. "Computers became available after the 1950 census," she said.

Dr. Bailar spent most of her career at the U.S. Bureau of the Census (1958-1987). She fondly recalled her early tenure at the Census Bureau under the leadership of some of the pioneers including Hansen, Hurwitz, and Deming, often joined by Cochran and Hartley. She had to "learn the art of interrupting" from those 'giants' themselves in order to "stand one's own ground" and "have one's own opinion heard". "That was never easy," she said. Dr. Bailar was elected President of the ASA (1987) and a Vice President of the International Statistical Institute (1993–95). After leaving Census Bureau, she became the Executive Director for ASA in 1988.

In this film, one will discover vintage Barbara Bailar: soft-spoken, polite, and always convincing. She does not shy away from important and sticky issues. She openly addresses undercount and confidentiality, historically among the most controversial issues associated with census.

From the opening shot to the end, this wonderful film on Dr. Barbara Bailar and the history of the American census will surely keep the viewers totally engaged.

During this memorable occasion, Dr. John C. Bailar III, Emeritus Professor of Health Studies from the University of Chicago and Dr. Elizabeth A. Martin, formerly from the U.S. Bureau of Census, were present as invited guests. Thus, another full segment titled A Conversation with Barbara A. Bailar (approximately 64 minutes) was arranged and this was dedicated to the memory of the late Professor

Harry O. Posten. In this conversation piece, Barbara Bailar, John Bailar, and Betsy Martin discuss Barbara Bailar's life and research, her passion to solve practical statistical problems and a career path that have made her a living legend in our profession. This film ought to be a 'must see' for all statisticians.

Both films open with a welcoming note from Professor Mukhopadhyay. John Bailar introduces Barbara Bailar in both pieces.

Heartfelt thanks go to the national committee members and to the local organizing committee, consisting of Professors Ming-Hui Chen, Zhiyi Chi, Dipak K. Dey, and Nitis Mukhopadhyay (Chair).

These new films will be preserved in the archive of the American Statistical Association. Inquiries about the new additions and earlier films in this series should be directed to: Mr. Rick Peterson, Education Programs Administrator, Center for Statistics Education, The American Statistical Association (t 703-684-1221, f 703-684-3768, e rick@amstat.org).



From left to right: Barbara Bailar, Betsy Martin, John Bailar, and Nitis Mukhopadhyay

I JSTOR and IMS celebrate 10 years

Sarah Kim reports from JSTOR on the collaborative efforts of IMS and JSTOR:

June 2008 marked the ten-year anniversary of the collaboration between the IMS and JSTOR, and we are proud of what we have accomplished in this relatively brief time. Today, the IMS and JSTOR offer 15,260 articles totaling 188,559 pages as part of the Arts & Sciences I Collection, available to over 2,700 institutions in eighty-four countries. While we celebrate and reflect upon the success of the past ten years, we are mindful of our long-term goals of preserving the scholarly literature in our care, increasing its accessibility and providing more benefits to the scholarly community.

Since 1998, IMS and JSTOR have worked together to archive five IMS publications: *Annals of Mathematical Statistics* (1930–1972); *Annals of Probability* (1973–); *Annals of Statistics* (1973–); *Statistical Science* (1986–); and *Annals of Applied Probability* (1991–).

Initially available in the Arts & Sciences I Collection, the first JSTOR collection started in 1997, the publications are also accessible through the discipline-specific Mathematics & Statistics Collection, established in 2003 to meet the needs of research institutions specializing in these disciplines. Users at participating institutions are able to search, browse, print, and download articles from the publications' first published issue through all but the most recent three years.

Since their public release in the JSTOR archive the publications have had 1,392,737 article views (twenty percent of views in the thirty-four available statistics journals in JSTOR) and 1,626,968 article printings (twenty-six percent of prints from the Statistics journals). This impressive usage demonstrates the value of the journals' older content. S. Kullback and R.A. Leibler's "On Information and Sufficiency," published in 1951, is the most popular article from

the Annals of Mathematical Statistics. The most frequently accessed article in the Annals of Probability was published in 1975, "I-Divergence Geometry of Probability Distributions and Minimization Problems," by I. Csiszar, while a 1979 article, B. Efron's "Bootstrap Methods: Another Look at the Jackknife," consistently takes top place in usage in the Annals of Statistics.

IMS and JSTOR are currently working to preserve the following publications in the archive: Lecture Notes—Monograph Series (1981—); NSF-CBMS Regional Conference Series in Probability and Statistics (1989—); and Annals of Applied Statistics (2007—)

These publications will be available through the Arts & Sciences Complement and Mathematics & Statistics Collections shortly. Lecture Notes—Monograph Series and Annals of Applied Statistics will have a moving wall of three years while NSF-CBMS Regional Conference Series in Probability and Statistics will have none.

During the past ten years, IMS has been among JSTOR's strongest supporters to increase access to the archive as widely as possible. As early participants of the individual access program, IMS offered its members access to the back issues of its publications through the JSTOR archive. Since JSTOR currently does not have an individual subscription model, this program granted access to the publications' back issues for unaffiliated IMS members.

The IMS has also joined JSTOR's recent efforts in broadening access: the Publisher Sales Service, and the Corporate & For-Profit Access Initiative. In 2006, in response to requests from students, faculty and researchers using the JSTOR archive, JSTOR finalized an agreement with Google to allow the popular search engine to begin crawling and indexing the archive for discovery purposes. Establishing additional pathways to the archive increased

the referrals to the JSTOR archive by fifty percent, representing an untold



number of researchers who did not have an institutional affiliation. To offer options to potential users, JSTOR introduced the Publisher Sales Service where publishers could offer individual articles for purchase. As one of the first publishers to participate in the program, IMS was able to reach a wider audience. Nearly 200 IMS articles were purchased in 2007, mostly from individuals in North America and the UK, and also worldwide, including Colombia, Greece, Japan and Singapore.

Expanding access is a central aim for both IMS and JSTOR. Over the years JSTOR has received requests from corporations wanting to gain access to the archive for their staff. Serving this group has been a lower priority as JSTOR focused on broadening access to scholarly work in educational settings. However, the level of interest from corporations has increased sharply in recent years as awareness of JSTOR has grown, and particularly with the indexing of the archive by Google. With publishers' encouragement to move ahead with making the archive available to the broadest possible audience, regardless of where they might be, JSTOR launched the Corporate & For-Profit Initiative in June 2008. All of IMS's released journals in JSTOR will be available in this collection.

IMS and JSTOR have a strong history of working together to preserve and broaden access to important historic literature of the mathematics and statistics fields. We are delighted to be working together and hope that scholars have benefited from our efforts. We are keen to hear the concerns of the scholarly community and are open to any questions or comments. Email pr@jstor.org or erg@imstat.org

Cuts in Australian Math/Stat Department



Shahjahan Khan, PhD, works in the Department of Mathematics and Computing at the University of Southern Queensland,

Australia. He reports on the loss of math/ stat academic colleagues and programs at his institution:

In recent years many Australian universities have downsized or closed their mathematics and statistics departments. According to the management of those universities, the main reason for such drastic action is low enrolment, and hence poor cost-effectiveness. The University of Southern Queensland (USQ) is the latest on the list to significantly reduce the number of mathematics and statistics academic staff and close down its professional masters program, and place the mathematics/statistics major under review.

The 'Realising Our Potential' (ROP) project of USQ started in July 2007, and its draft proposals were rolled out in March 2008. The Faculty of Sciences was asked to save AU\$1.5 million in 2009 by cutting 15 positions. In the final plan, 11 of these were decided to be from the Department of Mathematics and Computing. Within the department three mathematics and two statistics positions were made redundant. However, two positions were created—one liaison Math/Stat and one Consultant Statistics—under the new strategic plan.

According to the latest reports, no forced redundancy will be required, as a sufficient number of academic staff applied for voluntary redundancy.

The most prominent among the leaving academics is the founding Professor of Mathematics at USQ, Anthony (Tony)
Roberts, who has already accepted a

professorship at the Adelaide University.

Some of the universities in Australia that had previously reduced the size of their math/stat departments are now trying to rebuild them. The University of Newcastle and Flinders University are among them. USQ's current initiative is in sharp contrast with these new developments.

The Australian Mathematics Society (AMS) conducted a review of math/stat teaching in Australia in 2005. This was to identify the reasons for the drop in enrolment in the math/stat area at Australian universities, and to recommend solutions to turn around the situation. The AMS is still concerned about maintaining Australia's research and scientific capabilities in line with other leading nations.

The President of AMS, Professor Peter Hall, and his team have worked very hard to take the matter to politicians in order to gain more funding for math/stat teaching, learning and research, in the light of the review report. As a consequence the previous federal government increased funding for math/stat education along with science education in general. The current government appears to have shown more support

for this by providing additional incentives for math/stat education. The government has introduced tax relief measures for would-be math/stat teachers.

Local politicians and national professional bodies made requests to the management of USQ not to proceed with the staff and program cutting measures. Many submissions have reached the management from renowned academics from all over the world. The website opened by Professor Terry Tao of UCLA, USA, drew considerable international attention in support of the math/stat programs at USQ (see http://terrytao.wordpress.com/supportusq-maths/). His Australian origin and connections made his role more relevant to promote the discipline.

The University is now trying to counter the negative publicity by promising new generic science programs that would include math/stat area. But it will be some time before things take any turn for the better. With fewer staff in the department, it will be a big challenge for the remaining staff to maintain an appropriate level of academic support for students and at the same time develop and run new programs.



Terence's Stuff: A Rose...

Words do matter.
Terry Speed rails
this month against
those who, like
Humpty Dumpty, use
language to mean
just what they choose
it to mean.



Recently someone emailed to ask for my thoughts on the distinction between estimation and prediction. His query was prompted by seeing the fitted value \hat{y} in linear regression referred to as an *estimate* of y. "My understanding," he wrote, "is that, strictly speaking, one predicts observable quantities but estimates unobservable quantities...[and so] \hat{y} [is] a predictor of the observable quantity y and an estimator of the unobservable quantity E(y)." He concluded, "I feel that such ambiguous use of the verb 'estimating' is bound to be confusing to students."

An email like this brings many strong feelings and contradictory thoughts flooding through my mind. Shakespeare on roses and names...Humpty Dumpty on words and meaning...H.W. Fowler...computer scientists...physicists...anova...and, of course, glaciers. I'd be delighted if there were some logic and consistency to English usage in statistics, so I first had to tell my questioner that I agreed with him on this particular point, but on the larger issue, we are worlds apart.

On the planet I inhabit, there is no "strictly speaking" in English usage, there's just usage: common, occasional, near-universal, rare, and so on. As for "ambiguous" and "confusing", welcome to the English language! To the best of my knowledge, there are no language police (guess for which language this term was coined?) watching over our use and abuse of English, which is not to say no-one cares. I care a lot, as I'm sure most of you

do. One of my must-reads each Sunday is William Safire's column, On Language, in the *New York Times Magazine*, and one of my treasured reference books is Fowler's *Modern English Usage* (look up 'terribly' for some insight into the British psyche). In the words of the Wikipedia entry on the book, the latest (1996) edition of this book, which was first published in 1926, reflects a "shift from prescriptive to descriptive linguistics." That's it, folks, there are no rules now; it's all Shakespeare and Humpty Dumpty.

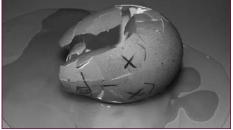
Despite being on the losing side, I continue to rail against terms that irritate me. Some twenty years ago I lent my support to the view—expressed some twenty years earlier, by a writer whom I respect a great deal—that use of the phrase analysis of variance should be restricted to those occasions when there is a variance undergoing analysis. As I'm sure you all know, anova is mostly the analysis of means, but I now accept this one as a lost cause. Nevertheless, I haven't given up entirely. In recent years I have found myself increasingly irked by the way in which computer scientists, physicists and others have systematically renamed concepts from our world, either to mystify or appropriate them—or (which is worse?) because they were unaware that we had already invented and named them ourselves. Cluster analysis is now unsupervised learning, while discrimination and allocation (a distinction I believe worth preserving) have become supervised learning, and logs of probabilities are potential, Hamiltonian or energy functions. Furthermore, when we're not doing machine learning, we are all practicing data mining or business intelligence. Our beloved word statistics is quite on the nose, not to be uttered in polite company outside the context of baseball, and certainly not to be advertised professionally. Recently I heard a medical researcher who gets a lot of help from

consulting and collaborating statisticians, referring time and again in a talk to the excellent assistance he received from his mathematicians.

I remember a conversation at a conference dinner in the Casino di Venezia, where a few young people patiently explained to me the concept of a "factor graph". In my arrogance and pride, I found it hard to believe that I'd got to the age I was without becoming aware of what sounded like a very important class of models in statistics, so I persisted in trying to grasp the idea and relate it to what I knew. It took a while to get to the heart of the matter, but we did, and it turned out that factor graphs were just multiplicative models, that is, the hierarchical loglinear models that were well studied over thirty years ago in the context of multidimensional contingency tables. Introduced about a decade ago as a generalization of Bayes or Markovian networks, factor graphs are in fact the more general objects (then called hierarchical loglinear models) from which these graphical models emerged as special cases thirty years ago.

Language was devised for communication, but it seems to have an equally powerful role in non-communication, in emphasizing differences, staking out territory. Perhaps you'll think I'm just a misty-eyed idealist, wanting to combine the historical tradition with logic and consistency in our professional language. And by the way, when *I* use a word, "it means just what I choose it to mean—neither more nor less."

Humpty Dumpty: eggsactly what he chose to mean?



IMS China Conference

Zhengyan Lin and Xuming He writes: The IMS China International Conference on Statistics and Probability (2008) was the inaugural meeting of IMS China. It took place in the beautiful city of Hangzhou from June 11 to 13. About 270 participants from China and abroad gathered at the Zhejiang University campus. The conference featured four plenary talks, 90 invited talks and 60 contributed talks, covering a wide range of research areas in statistics and probability. Professors Zhidong Bai (Northeast Normal University and National University of Singapore) and Iain Johnston (Stanford University) presented their plenary talks on large random matrices from two distinctive perspectives. A number of other invited speakers focused on the theory and methodology of high dimensional data analysis. The other two plenary talks were given by Professors Shige Peng (Shangdong University) on probability theory on financial risks and by Professor Larry Brown (University of Pennsylvania) on nonparametric empirical Bayes and compound Bayes estimation.

For many of the sessions the rooms were packed with enthusiastic young researchers. A large number of researchers from China spoke at the conference, and the conference provided a great venue for them to present their work to their colleagues from other countries. Many of the leaders in the Chinese probability and statistics community attended the conference. Professor Jun Zhu, Vice President of Zhejiang University, and Professor Jianqing Fan, the President of IMS, spoke at the opening ceremony on the importance of probability and statistics as a scientific discipline in China. Professor Zhi-Ming Ma, President of the Chinese Mathematical

Society, and Professor Larry Brown, a former IMS president, spoke about the significance of broader participation of Chinese scholars in the international stage. On June 11, a special information session was held for prospective IMS China members, chaired by Professor Jiaan Yan, the first Chair of the IMS China Executive Committee.

Conference participants enjoyed an afternoon tour along the West Lake and at the Song Dynasty Town, followed by a spectacular musical in the evening. Overseas participants were impressed by the organizational skills of the local Organizing Committee, and left Hangzhou with both hands full: one with new academic sparks and the other with new cultural experience.

According to Professor Xuming He, Co-Chair of the Program Committee, the conference received so much positive feedback that the IMS China Committee has decided to plan the second conference already.

The opening ceremony of the IMS China International Conference, on June 11, 2008



Letter to the Editor

Letters on any issue of interest to IMS members are welcome. Email your letters to the Editor at bulletin@imstat.org. Some small print: the Editor's decision is final; we may edit your letter before publication; publication does not necessarily imply endorsement of the opinions expressed therein, and the IMS Bulletin and its publisher do not accept any responsibility for them.

*Dear Editor**

I was pleased to read Terry Speed's Memoirs about Pao-Lu Hsu [in the June 2008 *Bulletin*].

After Columbia in 1947–48, I followed Hotelling to Chapel Hill for my doctorate. I wanted to take multivariate analysis but Hsu had left in 1947 and his replacement, S. N. Roy, had not yet arrived. Hotelling suggested that I study Hsu's lecture notes previously taken by Al Bowker. Walter Deemer was there at the same time with the

same idea so we studied from Hsu's notes, and later gave a lecture to the faculty on what we had learned. The notes by Hsu were a model of exposition, novelty and creativity. These notes served as a catalyst to read many of Hsu's papers, and we found them inspirational.

I regret that my interaction with Hsu was only via his written work and not personal. However, there was one interaction via the mail. As noted by Terry, the U.S.

and China did not have diplomatic relations, so Hotelling wrote to Egon Pearson, who transmitted the letter to Hsu, and similarly on the return path.

I urge students interested in multivariate analysis to browse through his collected works. You will find a number of gems.

Sincerely,

Ingram Olkin

Stanford University

IMS Neyman Lecture

Peter McCullagh describes his Neyman lecture, "Random effects models for autogenerated units": One of the first pieces of advice given by Bailey in Design of Comparative Experiments (Cambridge University Press, 2008) to those planning an experiment or analyzing the data from an experiment is to ask two questions: What are the experimental units, and what are the observational units? Each experimental unit usually comprises several observational units, closely related physically or genetically, and that the responses for two observational units may not be independent. In addition to the usual random effects associated with distinct observational units, there may be additional random effects associated with blocks, clusters or experimental units. Usually the effects associated with observational units are assumed to have independent components, and the same assumption may be made for cluster effects or block effects, but in general, random effects associated with spatial or temporal proximity need not have independent components.

For concreteness, consider a specific application such as marketing and consumer behaviour. It is conventional to regard each purchase event as an observational unit, and to record for each such event the brand purchased. The modelling question is then framed as follows. Given that the consumer purchases one of the brands in the target list, which covariates affect the choice distribution? In particular, how is the brand choice affected by treatments such as advertising, product placement and brand-specific inducements? These questions, and the subsequent analyses are based on a fundamental misunderstanding of the notion of an observational unit. In the conventional laboratory or field-trial setting, the sample of observational units (plots) is fixed by design and unaffected by treatment. In marketing, by contrast, the sample of purchase events is not fixed by design, and one effect of treatment may be to increase or decrease the total number of events. Further, the set of brands chosen for study determines what is and what is not a unit for study purposes: in this sense, the selection of units depends on the response.

In clinical trials with sequential recruitment, the issues appear different because of temporal stratification, eligibility restrictions, and an understandable reluctance to regard patients as faceless and anonymous. However, if a recommendation is to be made affecting subsequent clinical practice, the statistical model must be capable of making predictions for currently ineligible individuals if and when they subsequently become eligible. Although the sample necessarily consists of currently eligible volunteers, the population of units must not be limited temporally. This population is most naturally regarded as a random set, and it follows that the sample is also random. The sample may also be random in a second sense,

namely that some eligible patients, who would be willing to use the medication if it were approved, may refuse to participate in the trial. No guarantee can be given that participation is independent of the outcome.

In the formal theory of stochastic processes, which includes conventional regression models, the index set of potential observational units is fixed, and usually infinite. The response distribution, which is specified in a consistent manner by the regression model $p_{\nu}(y)$ for each fixed finite sample of units, depends on the sample configuration $x = (x(u_1), ..., x(u_n))$. The components of Y for distinct units need not be independent. Although the definition of a fixed sample is unambiguous mathematically, the interpretation is far from clear in many applications. Random samples of units are hard to avoid in biological work because the population units are typically unlabelled. Sequential recruitment of units is standard practice in clinical work, ecological studies and market research: labels affixed to the sample units after recruitment tend to obscure this aspect of the sampling scheme. It is by no means obvious that model distributions specified for fixed samples are suitable for applications in which the units are unlabelled and samples are random.

The Neyman lecture is intended to emphasize interactions between statistical theory and scientific research, and the main point of this lecture is to argue the case for an alternative scheme avoiding the concept of a fixed population of observational units. Instead, a stream of events or 'units' is generated in time by a Cox process, each autogenerated unit being identified with its (x,y,t)value. A sample is automatically random because the units themselves are random: in particular, the number of units occurring in a fixed time interval is random. The sequence $(X_1, Y_1), (X_2, Y_2),...$ taken in temporal order is exchangeable, but the components are not independent except in trivial cases. In most cases, the conditional distribution $pr(Y_1 = y \mid X_1 = x)$ given the X-value for the first unit, is not the same as the stratum distribution $pr(Y_u = y \mid u:X_u = x)$ for a random element u, the first one such that $X_u = x$. For binary response models, the joint distribution $p_x(y)$ for fixed quota x coincides with the generalized linear mixed model specification. The conditional distribution p(y|x) for a sequential sample that happens to have the same configuration is quite different. Even the onedimensional distributions are different. This analysis indicates that the conventional generalized linear mixed model is not appropriate for the analysis of random samples with random x configuration. The analysis also reveals that the phenomenon of parameter attenuation due to random effects in logistic models is a statistical illusion attributable to sampling bias.

IISA Conference report

Nitis Mukhopadhyay reports on the International Indian Statistical Association Conference, "Frontiers of Probability and Statistical Science": The IISA conference was sponsored and hosted by the Department of Statistics at the University of Connecticut-Storrs, from May 22-25, 2008. It was additionally sponsored and partly funded by the ASA and partners from business and industry. Nearly 180 participants attended the conference from many parts of the world, making it the best-attended IISA conference held in North America. Participants represented academia, centers and institutes, government, and industries, and there were many student participants.

The technical program included plenary

lectures from
Jayaram Sethuraman
and Marvin Zelen.
A special feature
introduced in this
conference was a
series of lectures
named after R.R.
Bahadur, D. Basu,
V. S. Huzurbazar,

P. R. Krishnaiah, and P. V. Sukhatme. Evarist Giné, Glen Meeden, L. J. Wei, Barry Arnold, and Sanat Sarkar respectively presented these specially named lectures. Additionally, there were 45 invited paper sessions on numerous topics. Details are on the conference web site, http://www.stat.uconn.edu/~nitis/IISA2008/index.htm.



Cultural program: From left to right, Debanjan Bhattacharjee accompanying Nitis, Ranjan, Mahua and Shankha Mukhopadhyay.

The IISA's lifetime achievement award went to S. R. S. Varadhan. The young researcher award went to Anindya Roy and Sujit K. Ghosh (theory) and Sayan Mukherjee (applications). Student-paper competition winners were Arnab Maity (theory) and Tyler McCormick (applications). Congratulations to these awardees and heartfelt thanks go to the respective committees who selected them.

On May 23, more than 110 guests attended a conference banquet, which included pre-banquet cultural program (produced and directed by Nitis and Mahua Mukhopadhyay) with live Indian traditional music and poetry recitations. Graduate students, Rohini Sen and Vishal Thapar, emceed the evening's program. A committee consisting of graduate students Balaji Raman, Rohini Sen, and Jeffrey Stratton helped.

The International Indian Statistical Association (IISA) is a non-profit organization, http://www.stat.osu.edu/~hnn/IISA. html. *Statistical Methodology* is the IISA's official journal, http://www.sciencedirect.com/science/journal/15723127. Anyone, not necessarily originating from India, who is interested in the association's objectives, is welcome to become a member of IISA.



[Left]: Peter McCullagh sent in this cartoon by Bill Volk, an undergraduate at the University of Chicago, to accompany his article on the Neyman lecturer (see previous page)



The Institute of Mathematical Statistics presents

IMS COLLECTIONS

Volume 1:

Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen

N. Balakrishnan, Edsel A. Peña and Mervyn J. Silvapulle, Editors

Pranab K. Sen has contributed extensively to many areas of statistics including order statistics, nonparametrics, robust inference, sequential methods, asymptotics, biostatistics, clinical trials, bioenvironmental studies and bioinformatics. His long list of over 600 publications and 22 books and volumes, along with numerous citations during the past five decades, bear testimony to his work. While parametric statistical inference remains popular, semi-parametric, Bayesian and nonparametric inferential methods have attracted great attention from numerous applied scientists because of their weaker assumptions, which make them naturally robust and so more appropriate in real-life applications. This clearly signals for "beyond parametrics" approaches which include nonparametrics, semi-parametrics, Bayes methods and many others. Motivated by this feature, and his drive in the "beyond parametrics" area, it is appropriate for a volume in honor of Pranab Kumar Sen to focus on this aspect of statistical inference and its applications. With this in mind, we have put together this volume in order to

- (i) review some of the recent developments in this direction,
- (ii) focus on some new methodologies and highlight their applications, and
- (iii) suggest some interesting open problems and possible new directions.

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OBITUARY: Aryeh Dvoretzky

1916-2008

Professor Aryen Dvoretzky, an IMS Fellow, passed away in Jerusalem, Israel, on May 8th, 2008.

He was born May 3rd, 1916, in Khorol, Ukraine, and his family migrated to Palestine (now Israel) in 1922. Dvoretzky received his education there: his MSc (1937) and PhD (1941) were from the then-young Hebrew University of Jerusalem. His teachers were Professors Michael (Mihály) Fekete and Abraham Fraenkel. Dvoretzky was appointed Professor of Mathematics at the Hebrew University in 1951.

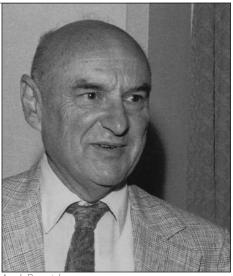
Dvoretzky's early research was in analysis, and his work was published in the French journals *C.R.A.S. Paris* and *Bulletin de la Société Mathématique de France*. Dvoretzky's interest in probability started in the early 1940s; we see his work with Theodore Motzkin in the *Duke Mathematical Journal*, vol.14, "A problem of arrangements," and in 1946, the *Lectures on the Theory of Probability* (in Hebrew). From 1950 his publications were mainly in English. As mentioned, his main field of work was analysis and convexity theory. His best known fundamental result in this field is the Dvoretzky theorem, which was

related by Vitali Milman to Paul Lévy's measure concentration phenomena and served as a starting point to modern Banach space theory. At the same time, Dvoretzky was producing work on probability. His work "On the Strong Stability of Sequence of Events" was published in the *Annals of Mathematical Statistics*, vol.20, in 1950.

At this time he was cooperating with Shizuo Kakutani and Paul Erdős, working on Brownian motion in *n*-space. Throughout the years, Dvoretzky cooperated with Erdős, Jacob Wolfowitz, Abraham Wald, Herbert Robbins and Y.S. Chow in producing elegant and fundamental work in probability theory.

Professor Dvoretzky introduced probability theory and mathematical statistics to Israeli students as early as 1946. He was considered one of the best teachers in the Hebrew University's Math Department, inspiring many students to take probability as their field of research.

Aryeh Dvoretzky believed that researchers and teachers should actively participate in university administration, and among his contributions were Dean of the Faculty of Sciences (1955–56) and Vice President of the Hebrew University (1959–61).



Aryeh Dvoretzky

He took up state-wide responsibilities, as president of the Israeli Academy of Sciences (1974–80), as well as serving as president of The Weizmann Institute of Sciences (1986–89).

Dvoretzky also held visiting appointments at the Collège de France, Princeton University, Columbia University, The University of California, Berkeley, Stanford University, and Purdue University.

Professor Aryeh Dvoretzky will be remembered in Israel as one of the founders of academic science in the young state, and as a scientist, teacher, and member of the community who, with integrity, genius, and elegance, has set an example for us all to try to follow.

Joseph A. Yahav Hebrew University of Jerusalem, Israel

Brazilian Journal of Probability and Statistics now IMS-supported

The *Brazilian Journal of Probability and Statistics* is an official publication of the Brazilian Statistical Society. Published twice a year, in June and December, the journal publishes papers in applied probability, applied statistics, computational statistics, mathematical statistics, probability theory and stochastic processes. The journal also occasionally publishes book reviews, invited papers and essays on the teaching of statistics.

The Editor in Chief is Silvia L. P. Ferrari, Universidade de São Paulo, Brazil e silviaferrari@usp.br The Executive Editors are Denise A. Botter e botter@ime.usp.br and Monica C. Sandoval e sandoval@ime.usp.br. Contact Denise Botter for information concerning subscriptions. For more information on the journal, please see http://www.redeabe.org.br/bjps.htm For more information on how IMS can support journals, please see http://imstat.org/publications/supported.html



IMS meetings around the world

IMS co-sponsored meeting

JSM2008 August 3–7, 2008 Denver, Colorado

w www.amstat.org/meetings/jsm/2008/

The 2008 Joint Statistical Meetings will be held August 3–7, 2008, at the Colorado Convention Center. Online program now available.

Deming Lecturer: Donald Berwick; Fisher Lecturer: Ross

Prentice



IMS sponsored meeting

11th IMS North American Meeting of New Researchers in Statistics and Probability July 29 – August 2, 2008 University of Colorado, Boulder

w http://www.stat.rutgers.edu/~rebecka/NRC Local chair: Ryan Elmore.

The meeting is to be held immediately prior to the 2008 Joint Statistical Meetings in Denver (see left).

At a glance:

forthcoming IMS Annual Meeting and ISM dates

2008

IMS Annual Meeting/ 7th World Congress in Probability and Statistics: Singapore, July 14–19, 2008. w http://www. ims.nus.edu.sg/ Programs/wc2008/ index.htm

JSM: Denver, CO August 3–7, 2008 w http:// www.amstat.org/ meetings/jsm/2008/

2009

IMS Annual Meeting @ JSM: Washington DC, August 2–6,

2009

2010

IMS Annual Meeting:

Gothenburg, Sweden, August 9–13, 2010

JSM: Vancouver, Canada, August 1–5, 2010

20II

JSM: Miami Beach, FL, July 31– August 4, 2011

IMS co-sponsored meeting series

2008 NSF-CBMS Regional Research Conferences in the Mathematical Sciences

The US National Science Foundation is supporting nine NSF-CBMS Regional Research Conferences during 2008. The



remaining meetings are listed, right. These conferences are intended to stimulate interest and activity in mathematical research. Each five-day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply-focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series.

Support for about 30 participants is provided and the conference organizer invites both established researchers and interested newcomers to attend. Contact the conference organizer for information about an individual conference. Questions should be directed to: *CBMS*, 1529 18th St. NW, Washington DC 20036-1385. **t** (202) 293-1170; **f** (202) 293-3412; **e** rosier@georgetown.edu or lkolbe@maa.org

Malliavin Calculus and its Applications August 7–12, 2008, Kent State University

Lecturer: David Nualart

Oana Mocioalca and Kazim M. Khan, organizers: 330-672-9083, oana@math.kent. edu; 330-672-9110, kazim@math.kent.edu http://www.math.kent.edu/math/CBMS2008. cfm

Tropical Geometry and Mirror Symmetry December 13–17, 2008, Kansas State Univ.

Lecturer: Mark Gross

Ricardo Castano-Bernard, Yan Soibelman, and Ilia Zharkov, organizers: 785-532-0585, rcastano@math.ksu.edu; 785-532-0584, soibel@math.ksu.edu: 617-495-8797, zharkov@math.harvard.edu www.math.ksu.edu/~rcastano/CBMS.html

IMS co-sponsored meeting

Fall Conference on Statistics in Biology October 13–15, 2008 Iowa State University, Ames, USA

w No web page yet

IMS co-sponsored meeting

International Workshop on Flexible
Modelling: Smoothing and Robustness
(FMSR 2008)

November 12–14, 2008 Leuven, Belgium

w http://wis.kuleuven.be/stat/fmsr2008.php
The workshop takes place in Leuven, a
beautiful historic city in the northern part
of Belgium. The general theme of the workshop is semi- and nonparametric analysis
and robust statistical methods. More
specific themes are, among others, flexible
smoothing and penalization, model selection, nonparametric functional estimation,
modelling dependencies and inference for
copulas, robust multivariate outlier detection, semi- and nonparametric methods in
time-series analysis.

There will be invited talks, contributed talks and poster sessions. The workshop will be followed by a short course for PhD-students.

List of Invited Speakers: Anestis Antoniadis, Graciela Boente, Jianqing Fan, Peter Hall, Xuming He, Bruno Rémillard, Qiwei Yao, Bernard Silverman.

Pictured below is Arenberg Castle in Leuven, Belgium



IMS co-sponsored meeting

ISNI2008: International Seminar on Nonparametric Inference November 5–7, 2008

Vigo, Spain

w www.isni2008.com [new URL]

ISNI2008 is a three-day international meeting devoted to nonparametric statistics. It will be held in Vigo, Galicia (in the north-west of Spain) on November 5–7, 2008. Its aim is to facilitate the exchange of research ideas and to promote collaboration among researchers in the field. The meeting is promoted by the three Galician research groups in nonparametric statistics (Vigo, Santiago de Compostela, and A Coruña), as well as by a number of close scientific collaborators coming from different countries in Europe and the USA.

ISNI2008 is organized by the SiDOR (Statistical Inference, Decision and Operations Research) group at the Faculty of Economics and Business, University of Vigo. It is cosponsored or endorsed by the IAP Attraction Pole, the Institute of Mathematical Statistics, the Section on Nonparametric Statistics of the American Statistical Association, the

Bernoulli Society for Mathematical Statistics and Probability, and the Galician and Spanish Societies for Statistics and Operations Research, among many other institutions.

The Scientific Programme includes seventeen invited



talks given by leading researchers in several areas of nonparametric statistics:

Speakers: Peter Hall (Melbourne); Hans Georg Müller (UC Davis); Jianqing Fan (Princeton); Jan Swanepoel (Potchefstroom); Anthony Davison (Lausanne); Lutz Duembgen (Bern); Natalie Neumeyer (Hamburg); Gerda Claeskens (KU Leuven); Anestis Antoniadis (Grenoble); Juan Carlos Pardo-Fernández (Vigo); Holger Dette (Bochum); Philippe Vieu (Toulouse); Gábor Lugosi (Barcelona); Jean Opsomer (Colorado State); Stefan Sperlich (Göttingen); Winfried Stute (Giessen); and Geert Molenberghs (Hasselt).

The *Journal of Nonparametric Statistics* will devote a special issue with contributions to the meeting.

Please visit www.isni2008.com for further information. Pre-registration is now open.

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Prices subject to change.



I More IMS meetings around the world

IMS co-sponsored meeting.

2009 Spring Research Conference on Statistics in Industry and Technology May 27–29, 2009

Vancouver, Canada

w http://www.stat.sfu.ca/~boxint/src2009/ Please email questions to Boxin Tang, boxint@stat.sfu.ca.

The goal of the conference is to promote cross-disciplinary research in statistical methods in engineering, science and technology. This covers a wide range of application areas including environment, information and manufacturing sciences. The conference will provide a forum where participants can describe current research, identify important problems and areas of application, and formulate future research directions.

IMS co-sponsored meeting

International Symposium in Statistics (ISS) on Inferences in Generalized Linear Longitudinal Mixed Models (GLLMM) July 20–22, 2009

Memorial University, St John's, Canada

w www.iss-2009-stjohns.ca

The objective of this ISS is to bring together a set of speakers and discussants to describe the latest research such as parametric and non-parametric inferences in this emerging area with applications to Biostatistics, Econometrics, and Ecological and Environmental studies, among others.

IMS co-sponsored meeting

Seventh Workshop on Bayesian Nonparametrics June 21–25, 2009 Collegio Carlo Alberto, Moncalieri, Italy

w http://bnpworkshop.carloalberto.org/ [forthcoming]

The workshop will be held at the Collegio Carlo Alberto in Moncalieri, on the outskirts of Turin. The meeting will feature the latest developments in Bayesian nonparametrics and will cover a wide variety of both theoretical and applied topics such as foundations of the Bayesian nonparametric approach, construction and properties of prior distributions, asymptotics, interplay with probability theory and stochastic processes, statistical modelling, computational algorithms and applications in machine learning, biostatistics, bioinformatics, economics and econometrics.

IMS co-sponsored meeting

33rd Conference on Stochastic Processes and their Applications July 27–31, 2009 Berlin, Germany

w http://www.math.tu-berlin.de/SPA2009/ Featuring two IMS Medallion Lectures, from Claudia Klüppelberg and Gordon Slade, a Lévy Lecture from Amir Dembo, and a Doob Lecture from Ed Perkins.

Organizing committee chair: Jochen Blath; co-chair: Peter Imkeller.

IMS Reps to Program Committee: David Aldous, Martin Barlow, Gérard Ben Arous, Mu-Fa Chen, Anna de Masi, Hans Föllmer, Luis Gorostiza, Dmitry Kramkov, Russ Lyons, Claudia Neuhauser, Ed Waymire, and Ofer Zeitouni.

IMS co-sponsored meeting:

2009 ENAR/IMS Spring Meeting March 15–18, 2009 Grand Hyatt San Antonio, San Antonio, TX

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

IMS co-sponsored meeting:

2010 ENAR/IMS Spring Meeting
March 21–24, 2010
Hyatt Regency New Orleans, New Orleans, LA
w http://www.enar.org/meetings.cfm

IMS co-sponsored meeting

Workshop for Women in Probability October 5–7, 2008. Cornell University, Ithaca, New York

w www.math.cornell.edu/~durrett/wwp/ A conference for Women in Probability will be held October 5-7, 2008, at Cornell University. The conference begins Sunday morning and ends at noon Tuesday. The scientific program, which is being organized by Lea Popovic (Concordia) and Amber Puha (San Marcos), will feature talks by Jennifer Chayes (Microsoft), Nina Gantert (Muenster), Masha Gordina (U. Conn.), Elena Kosygina (Baruch), Elizabeth Meckes (Case Western), Tai Melcher (Virginia), Kavita Ramanan (CMU), Deena Schmidt (IMA), Anja Sturm (Delaware), and Ruth Williams (UCSD). Women probabilists, especially young researchers and advanced graduate students, are invited to participate. To register, and for information on how to apply for support for lodging and local expenses, go to the conference web page above. Funding for this conference comes from an NSF Research Training Grant to the probability group at Cornell, so preference will be given to supporting US citizens, nationals, and permanent residents. For questions about local arrangements, contact the conference secretary, Rick Durrett, rtd1@cornell.edu

L N M S

LECTURE NOTES -MONOGRAPH SERIES



LNMS Volume 56:

PAC-Bayesian Supervised Classification: The Thermodynamics of Statistical Learning

by Olivier Catoni

This monograph deals with adaptive supervised classification, using tools borrowed from statistical mechanics and information theory, stemming from the PAC-Bayesian approach pioneered by David McAllester and applied to a conception of statistical learning theory forged by Vladimir Vapnik. Using convex analysis on the set of posterior probability measures, we show how to get local measures of the complexity of the classification model involving the relative entropy of posterior distributions with respect to Gibbs posterior measures. We then discuss relative bounds, comparing the generalization error of two classification rules, showing how the margin assumption of Mammen and Tsybakov can be replaced with some empirical measure of the covariance structure of the classification model. We show how to associate to any posterior distribution an effective temperature relating it to the Gibbs prior distribution with the same level of expected error rate, and how to estimate this effective temperature from data, resulting in an estimator whose expected error rate converges according to the best possible power of the sample size adaptively under any margin and parametric complexity assumptions. We describe and study an alternative selection scheme based on relative bounds between estimators, and present a two step localization technique which can handle the selection of a parametric model from a family of those. We show how to extend systematically all the results obtained in the inductive setting to transductive learning, and use this to improve Vapnik's generalization bounds, extending them to the case when the sample is made of independent non-identically distributed pairs of patterns and labels. Finally we review briefly the construction of Support Vector Machines and show how to derive generalization bounds for them, measuring the complexity either through the number of support vectors or through the value of the transductive or inductive margin.

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Other Meetings Around the World: Announcements and Calls for Papers

Statistical Methods for Complex Data:

Conference in honor of Raymond J. Carroll's 60th birthday March 14, 2009. Texas A&M University



Texas A&M University Department of Statistics is teaming up with the National Cancer Institute (NCI) next spring to celebrate one of Texas A&M's most pioneering professors, Dr. Raymond J. Carroll, with a day-long conference in honor of his 60th birthday and his

many contributions to statistical teaching, research and service.

Keynote speakers are Dr. Mitchell Gail (National Cancer Institute) and Dr. Peter Hall (University of Melbourne).

The conference, which is open to the public, will feature presentations by internationally recognized researchers engaged in statistical methods for complex data in a variety of fields—many revolutionized by Carroll and his worldwide legion of protégés. Topics will be grouped into three sessions: nonparametric and semiparametric regression; measurement error and inverse prob-



Raymond Carrol

lems; and statistical methods in biology, genetics and population science. In addition to providing an overview of historical developments and current status for each field, the conference will serve as a discussion platform for emerging issues and future research directions.

Registration is required for the conference, which is conveniently scheduled just before the 2009 International Biometric Society ENAR/IMS meeting, slated for March 15–18 in San Antonio. For more information on the conference, including the scientific program, a complete list of presenters, and available hotels, visit http://www.stat.tamu.edu/carroll/.

For scientific questions, contact Xihong Lin, program committee chair, at xlin@hsph. harvard.edu. For logistical issues, please contact Joyce Sutherland, conference coordinator, at (979) 845-5528 or joyce@stat.tamu.edu.

41st Annual Conference of the French Statistical Society, SFdS May 25–29, 2009 Bordeaux, France



w http://www.sm.u-bordeaux2.fr/JDS2009/index.html

Below: Pont de Pierre, Bordeaux, France



Employment Opportunities around the world

Employment Opportunities around the world

IMS and JobTarget have joined forces for job seekers and advertisers in statistics or probability—IMS members and non-members alike. 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 30-day online job posting costs just \$175.00, 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.

Currently on the IMS Job Boards

United States: CA

Los Angeles: University of California, Los Angeles

Faculty/Temp Faculty: Assistant Professor http://jobs.imstat.org/c/job.cfm?site_id=1847&job_id=4573636

United States: DC

Washington: American University

Tenure Track position in Statistics: Assistant Professor http://jobs.imstat.org/c/job.cfm?site_id=1847&job_id=4555187

International Calendar of Statistical Events

IMS meetings are highlighted in maroon with the ims logo and new or updated entries have the 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

August 2008

JSM2008. w http://www.amstat.org/meetings/jsm/2008/

August 3 and 6: Denver, Colorado (at JSM). NISS/ASA Writing Workshop for Junior Researchers. w http://www.amstat.org/meetings/wwjr/

August 3–9: Ouro Preto, Minas Gerais, Brazil. XII Brazilian School of Probability (Escola Brasileira de Probabilidade). w http://www.mat.ufmg.br/ebp12

August 3–16: Middelfart, Denmark.

Summer school and workshop: Stochastic

Differential Equation Models with

Applications to the Insulin-Glucose System
and Neuronal Modeling. w http://www.
math.ku.dk/~susanne/SummerSchool2008/

August 4–9: CRM, Montréal. Stochastic Loewner Evolution and Scaling Limits [CRM program] **w** http://www.crm. umontreal.ca/Mathphys2008/loewner_e. shtml

Malliavin Calculus and its Applications [NSF-CBMS]. w http://www.math.kent.edu/math/CBMS2008.cfm

August 17-21: Copenhagen, Denmark. ISCB-29: International Society for Clinical Biostatistics. **w** www.iscb2008.info

August 18–23: CRM, Montréal. Laplacian Growth and Related Topics *[CRM program]* **w** http://www.crm.umontreal.ca/ Mathphys2008/laplacian_e.shtml

August 25–30: CRM, Montréal. Random Matrices, Related Topics and Applications [CRM program] w http://www.crm. umontreal.ca/Mathphys2008/matrices_e. shtml

August 26–29: Southampton Statistical Sciences Research Institute, UK. Workshop and Conference on Sample Surveys and Bayesian Statistics. w www.s3ri.soton.ac.uk/ssbs08/

August 27–29: Universidade de São Paulo, Brazil. First Workshop in Stochastic Modeling. w http://dfm.ffclrp.usp.br/mat/ wsm1

September 2008

September 1–5: East Midlands Conference Centre, Nottingham, UK. 2008 International Conference of the Royal Statistical Society. www.rss.org.uk/rss2008

September 1–6: CRM, Montréal. Random Tilings, Random Partitions and Stochastic Growth Processes [CRM program] w http://www.crm.umontreal.ca/Mathphys2008/tilings_e.shtml

September 8–12: Antalya, Turkey.

International Conference on Robust

Statistics: ICORS 2008. Organizer: Olcay

Arslan, Cukurova University e oarslan@

cu.edu.tr w www.icors08.org

September 17–19: Johannes Kepler University, Linz, Austria. First Summer School on Copulas. w http://www.flll.jku.at/ssc

September 22–26: Blaubeuren, Germany. Fifth Colloquium on Mathematics and Computer Science. w http://www-computerlabor.math.uni-kiel.de/stochastik/colloquium08/main.html

September 25: Amsterdam, The Netherlands. Fourth International Longevity Risk and Capital Markets Solutions Conference. e emma.brophy.1@city.ac.uk

September 29 – October 4: CRM, Montréal. Quantum Many-Body Systems, Bose-Einstein Condensation [CRM program] w http://www.crm.umontreal.ca/ Mathphys2008/bose-einstein_e.shtml

October 2008

Ithaca, NY. Workshop for Women
in Probability. Program organizers:
Lea Popovic and Amber Puha. Local
Arrangements: Rick Durrett e rtd1@cornell.
edu w www.math.cornell.edu/~durrett/wwp/

October 2008 continued

Ames, USA. Fall Conference on Statistics in Biology. w No web page yet

October 24–25: Northwestern University, Evanston, IL. 30th Midwest Probability Colloquium. w www.math.northwestern. edu/mwp (to be updated)

November 2008

November 3–5: Lodz, Poland. 27th Annual Conference on Multivariate Statistical Analysis (MSA'08). Czeslaw Domanski e msa@uni.lodz.pl w http://www.msa.uni.lodz.pl

November 5–7: Vigo, Spain.
ISNI2008: International Seminar on Non-parametric Inference. w www.isni2008.com

International Workshop on Flexible
Modelling: Smoothing and Robustness
(FMSR 2008). w http://wis.kuleuven.be/
stat/fmsr2008.php

December 2008

December 1–3: Hanoi, Vietnam. 2008 International Conference on Applied Probability and Statistics (CAPS 2008). w http://www.action-m.com/CAPS2008/ December 8–12: Tropicana Casino Resort, Atlantic City, NJ. 64th Annual Deming Conference on Applied Statistics. Walter R. Young e demingchair@gmail.com w http:// www.demingconference.com/

December 13–16: Rutgers University, NJ. 100th Statistical Mechanics Conference. e Joel Lebowitz lebowitz@math.rutgers.edu

Univ. Tropical Geometry and Mirror Symmetry [NSF-CBMS]. w www.math.ksu. edu/~rcastano/CBMS.html

January 2009

January 4–10: CRM, Montréal. Random Functions, Random Surfaces and Interfaces [CRM program] w http://www.crm. umontreal.ca/Mathphys2008/functions_e. shtml

March 2009

March 14: Texas A&M University. Statistical Methods for Complex Data: Conference in honor of Raymond J. Carroll's 60th birthday. Xihong Lin, program committee chair e xlin@hsph. harvard.edu. Joyce Sutherland, conference coordinator, t 979-845-5528 e joyce@stat. tamu.edu. w http://www.stat.tamu.edu/carroll/

Antonio, Texas. 2009 ENAR/IMS Spring
Meeting. w www.enar.org/meetings.cfm

March 24–27: Tokyo, Japan. Sixth
International Conference on Multiple
Comparison Procedures. Co-chairs:
Chihiro Hirotsu (Meisei University, Japan)
and Martin Posch (Medical University of
Vienna, Austria). www.mcp-conference.
org

May 2009

May 18–23: CRM, Montréal. Interacting Stochastic Particle Systems [CRM program] w http://www.crm.umontreal.ca/Mathphys2008/stochastics_e.shtml

May 25–9: Bordeaux, France. 41st Annual Conference of the French Statistical Society. w http://www.sm.ubordeaux2.fr/JDS2009/index.html

Spring Research Conference on Statistics in Industry and Technology. Boxin Tang e boxint@stat.sfu.ca w http://www.stat.sfu.ca/~boxint/src2009/

May 31 – June 3: Vancouver, Canada. 2009 SSC Annual Meeting. Local Arrangements: Nancy Heckman (UBC). Program: Wendy Lou (Toronto) w http://www.ssc.ca/main/ meetings_e.html

June 2009

June 8–13: CRM, Montréal. Disordered Systems: Spin Glasses [CRM program] w http://www.crm.umontreal.ca/ Mathphys2008/spin_e.shtml

International Calendar continued

June 2009 continued

Moncalieri, Italy. Seventh Workshop on
Bayesian Nonparametrics. w [forthcoming]

July 2009

July 12–15: Cornell University, Ithaca, NY. 2009 Applied Probability Society Conference. Co-organizers: Shane Henderson and Mark Lewis.

July 20–22: Memorial University, St John's, Canada. International Symposium in Statistics (ISS) on GLLMM. Brajendra Sutradhar e bsutradh@math.mun.ca w www. iss-2009-stjohns.ca

Conference on Stochastic Processes and their Applications. Organising committee chair: Jochen Blath; co-chair: Peter Imkeller. w http://www.math.tu-berlin.de/SPA2009/

August 2009

Annual Meeting at JSM2009

May 2010

May 23–26: Québec City, Canada. 2010 SSC Annual Meeting. Local Arrangements: Thierry Duchesne (Université Laval) w http://www.ssc.ca/main/meetings_e.html

August 2010

Columbia, Canada. JSM2010.

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

August 19–27: Hyderabad, India.

International Congress of Mathematicians
2010. Program Committee Chair: Prof.
Hendrik W. Lenstra, Leiden University

e hwlicm@math.leidenuniv.nl

July 2011

July 31 – August 4: Miami Beach, Florida. IMS Annual Meeting at JSM2011.

July 2012

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

August 2014

August 3-7: 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.

Individual and Organizational Memberships:

Each individual member receives the *IMS Bulletin* and may elect to receive one or more of the five scientific journals. Members pay annual dues of \$95. An additional amount is added to the dues of members depending on the scientific journal selected as follows: *The Annals of Applied Probability* (\$40), *The Annals of Applied Statistics* (\$30), *The Annals of Probability* (\$40), *The Annals of Statistics* (\$40), and *Statistical Science* (\$25). Of the total dues paid, \$28 is allocated to the *Bulletin* and the remaining amount is allocated among the scientific journals received. **Reduced membership** dues are available to full-time students, new graduates, permanent residents of countries designated by the IMS Council, and retired members. **Organizational memberships** are available to departments, corporations, government agencies and other similar research institutions at \$150 per year. Organizational members may subscribe to the journals at an additional cost.

Individual and General Subscriptions:

Subscriptions are available on a calendar-year basis. Individual subscriptions are for the personal use of the subscriber and must be in the name of, paid directly by, and mailed to an individual. Individual subscriptions for 2008 are available to *The Annals of Applied Probability* (\$135), *The Annals of Applied Statistics* (\$125), *The Annals of Probability* (\$135), *The Annals of Statistics* (\$135), *Statistical Science* (\$120), and *IMS Bulletin* (\$82). General subscriptions are for libraries, institutions, and any multiple-readership use. General subscriptions for 2008 are available to *The Annals of Applied Probability* (\$275), *The Annals of Applied Statistics* (\$195), *The Annals of Probability* (\$296), *The Annals of Statistics* (\$296), *Statistical Science* (\$164), and *IMS Bulletin* (\$82). Airmail rates for delivery outside North America are \$95 per title.

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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Information for Advertisers

General information

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Advertising job vacancies NEW

A single 30-day online job posting costs \$175.00. We will also include the basic information about your job ad (position title, location, company name, job function and a link to the full ad) in the *IMS Bulletin* at no extra charge. See http://jobs.imstat.org

Advertising meetings, workshops and conferences

Meeting announcements in the *Bulletin* and on the IMS website at http://imstat.org/meetings are free. Send them to Elyse Gustafson See http://www.imstat.org/program/prog_announce.htm

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	size: width x height	rate
1/3 page	4.93" X 4" (125.2 X 102 mm)	\$195
1/2 page	7.5" x 4" (190 x 102 mm)	\$245
2/3 page	4.93" x 8" (125.2 x 203 mm)	\$295
Full page	7.5" x 9.4" (190 mm x 239 mm)	\$345

Deadlines and Mail Dates for IMS Bulletin

Issue		Deadline for advertisement	Usually online by	Scheduled mail date	
1:	January/February	December 1	December 15	January 1	
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	

next issue

October 2008

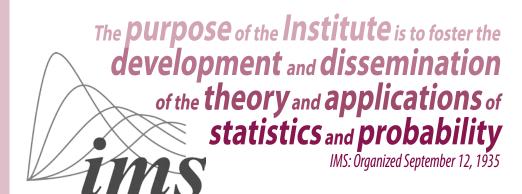
Reports from the World Congress in Singapore and JSM, news of members, announcements and information about meetings around the world, and new job listings.

We love to hear from you! Send in your ideas, articles, letters...

DEADLINE submissions September 1, 2008

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

Information inside cover



Kakuro corner

How to play: Place single digits (1 to 9 inclusive) in the white boxes in the grid. The row or column of digits which make up a sequence must add up to the black box to the left or at the top. Each digit in a sequence must be different. In the example below, the first row sequence is to make 8:



No repeated digits in a sequence.

8 2 1 3

This row sequence doesn't add up to 8.

8 1 5 2

...this one does! (So does 1,2,5 and 3,1,4 and so on)

Puzzle 27						9 8	5 / 2
	30\	16			9	20\	9
7				\23 39\			
13			11 27				
25					7 22		
\35						31	
	\33						12
	22	15 7					
11			29 11				
\ 26					$\sqrt{4}$		
8					8		

Puzzle by www.yoogi.com