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## IMS Grows Internationally

*From the IMS President: Jianqing Fan*

My most frequently visited site is the IMS website, <http://imstat.org>. It contains useful information about this academic organization, with significant improvements still under way. The first sentence on the membership page constantly reminds me of its mission: "The IMS is an international professional and scholarly society devoted to the development, dissemination, and application of statistics and probability". This timeless mission statement reflects the great vision and wisdom of IMS's founders. Reading on, the second sentence states that, "The Institute currently has about 4,500 members in all parts of the world". It pronounces proudly that at least 4,500 probabilists and statisticians share our vision. I could not help but wonder that there must be a lot more scholars in the world who share this vision, but do not yet have proper means to join the IMS.



*The IMS President, Jianqing Fan*

Founded in 1935 in the United States, IMS has a strong base of constituents in the US, consistently delivering a glory history of excellence in scholarship. This can also give the impression that IMS is US-based institution, which is somewhat at odds with its own mission. Technological innovation, the internet revolution, and trade globalization have forever changed the world that we live in today, which is far closer in scale and scope. International collaborations take place every day in addressing complex challenges of human endeavors such as environment, energy, and economy. Under this globalization trend, it is paramount for the IMS to reach out more to different parts of the world.

The creation of the IMS China was approved by the IMS Council in 2007, to encourage and facilitate the statistics and probability communities in China to join the IMS, to help the communities there to become more internationalized, and to help the IMS carry out its missions in China. Due to obstacles such as currency exchange controls, many Chinese scholars find it difficult to join the IMS and to enjoy the benefits that the IMS can offer. Their communications with international academic societies are increasing, but still limited. They have few chances to present their research findings at international conferences in other countries, due to difficulties in obtaining visas, and those in less developed areas of China are often unaware of our new research frontiers. The establishment of IMS China helps overcome these barriers and promote the development and applications of statistics and probability in this rapidly growing economy, which will, in turn, strengthen the IMS tradition of excellence and leadership in probability and statistics. It will also facilitate other IMS members to collaborate with

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# IMS Members' News

## US National Academy of Sciences announces new members

The United States National Academy of Sciences has announced the election of 72 new members and 18 foreign associates from 9 countries, in recognition of their distinguished and continuing achievements in original research. Those elected bring the total number of active members to 2,041, and foreign associates to 397.

Among those newly elected is IMS Fellow **Thomas M. Liggett**, professor in the department of mathematics at the University of California, Los Angeles. Tom's research areas are probability theory and interacting particle systems. According to his homepage, he can trace his genealogy right back to Bernoulli, thus: S. Karlin, S. Bochner, E. Schmidt, D. Hilbert, C. Lindeman, F. Klein, R. Lipschitz, G. Dirichlet, S. Poisson and J. Fourier, J. Lagrange, L. Euler, J. Bernoulli. We'll bring you a profile about Tom in a future issue.

Another new member is a widely-recognized statistician, working in statistical genetics, **Elizabeth A. Thompson**, who is a professor in the department of statistics at the University of Washington, Seattle. Also elected as a Foreign Associate was Fields Medallist, **Terence Tao**, University of California, Los Angeles.

Last year we announced the election of IMS Fellows **Rick Durrett** and **John Kingman** to the Academy. We'll bring you photos of their induction ceremony in the next issue.

The US National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for general welfare. Additional information about the Academy and its members is available online at <http://www.nasonline.org>.

## 2008 Don Owen Award for Narayanaswamy "Bala" Balakrishnan

The San Antonio Chapter of the American Statistical Association (ASA) presented its 2008 Don Owen Award to Dr **N. Bala Balakrishnan**, an IMS Fellow and Professor of Statistics at McMaster University in Canada, a statistician who embodies the three-fold accomplishments of Professor Owen: excellence in research, statistical consultation, and service to the statistical community. In the announcement, Dr Balakrishnan's "active research life, his teaching excellence and his prolific stature as an editor; in addition, his vigor and zeal for the subject" were noted. The award was presented at the Conference of Texas Statisticians in San Antonio, Texas, in March. The award carries a monetary stipend from Taylor & Francis Publishing Company and a memorial plaque, which was presented this year by the first recipient, in 1983, Dr Robert L. Mason. The Don Owen Award, cosponsored by Taylor & Francis, is named for IMS Fellow Donald B. Owen, who, before his death in 1991, was Distinguished Professor of Statistics at Southern Methodist University in Dallas, Texas.



## UK Government appoints Adrian Smith as Director General of Science and Research

The UK's Department of Innovation, Universities and Skills, the government department responsible for adult learning, further and higher education, skills, science and innovation, has appointed IMS Fellow Professor **Adrian Smith** FRS as its new Director General of Science and Research. Professor Smith, who delivered the COPSS Fisher lecture in 2003, is currently Principal at Queen Mary College, University of London. He is also currently Chair of the UK Advisory Committee on Mathematics Education.

# IMS grows: continued from cover

Chinese scholars and to participate in the exciting development of China, in both science and humanities.

IMS China's status is chartered as a special committee during its initial phase. It will be formally launched in June during its inaugural conference in Hangzhou. Last September, I wrote to over 70 leaders of the probability and statistics community in China, to share the concept of IMS China. I was truly touched by the strong support that I received from those leaders. In addition, I am truly delighted to have been able to convince 20 extremely strong scholars from different parts of China to lead IMS China. I am also extremely pleased with the support from our IMS members, as exemplified by their keen participation in the inaugural IMS China conference.

Over the years, the IMS has had strong connections with the academic communities in China. In 2004, the IMS and the Chinese Society of Probability and Statistics launched a joint statistics meeting in Beijing. Every year, hundreds of IMS members visit China to conduct collaborative research and to give academic seminars. With this cherished support from the academic communities in China and friends from all over the world, IMS China will certainly thrive as part of the IMS.

Our internalization efforts should not stop with the formulation of IMS China. To strengthen the IMS's image as a premier international scholastic society, the IMS Council has approved the creation of **biennial IMS meetings in Asia and the Pacific Rim**. The inaugural meeting is expected to be held jointly with The Korean Statistical Society in 2009 with the strong leadership from Professors Byeong Park, Run-Ze Li and Feifeng Hu. I have also formed an ad hoc committee, chaired by Alicia Carriquiry, to **study the feasibility of IMS meetings in South America**.

Expanding our membership base, in both diversified research areas and the international arena, is vital for the health of the IMS as a leading international institution in promoting and facilitating the advancement of probability and statistics. The formation of IMS China is just one of the first bold steps in this direction.

## IMS China: some facts

**What is IMS China?** IMS China is established with the status of an IMS Committee to facilitate and coordinate the IMS membership drive and other IMS activities in China. It is part of IMS.

**Why is IMS China needed?** With IMS China, scholars in mainland China will be able to pay membership dues in their own currency, and will be able to participate in more IMS activities in the region. The IMS is well-respected in the probability and statistics community in China, but currency exchange controls and difficulties in obtaining visas to travel have been among the main obstacles preventing prospective members in China from enjoying what the IMS has to offer.

**What changes will IMS China bring to IMS members?** We expect IMS membership to grow in China. Every IMS China member is an IMS member. As the IMS membership grows in China, and other parts of the world, we will have a broader platform to fulfill our mission towards the development, dissemination, and application of statistics and probability. We can expect more IMS activities in Asia, which will benefit all IMS members. For example, the IMS meeting series in Asia and the Pacific Rim will start in 2009. The establishment of IMS China is just one of the steps the IMS is taking to strength its position as a premier international society in probability and statistics.

## 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

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

*Bernoulli*: Holger Rootzén  
<http://isi.cbs.nl/bernoulli/>

*Annales de l'Institut Henri Poincaré (B)*: Alice Guionnet  
<http://imstat.org/aih/>

### IMS Affiliated Journals

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

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

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# Workshop on Composite Likelihood Methods

An IMS co-sponsored Workshop on Composite Likelihood Methods was held at CRiSM, University of Warwick, UK, from 15–17 April, 2008. Workshop organizer David Firth reports:

In many modern applications of statistical models, standard likelihood-based inference meets difficulties caused by high-dimensional interdependencies. Prominent application areas include the analysis of multivariate longitudinal and event-history data, spatial statistics, social network analysis, and bioinformatics. The problems encountered include prohibitively large computational demands (usually arising from the need to calculate integrals in many dimensions), and undue sensitivity to secondary modelling assumptions.

Various alternative approaches based on modification of the likelihood have been suggested in the research literature; composite likelihoods are instances of this, and they have been of rapidly increasing interest recently. Composite likelihoods are pseudo-likelihoods constructed by pooling likelihood components, with each component corresponding to a marginal or conditional event. A prominent special case

is pairwise likelihood, based on components which are marginal likelihoods for pairs of observations.

This international workshop reviewed the state of art of composite likelihood inference, and promoted discussion of foundations, applications and future developments. A further theme of discussion was the comparison of composite likelihood methods with alternative, computer-intensive approaches to inference in highly structured models, such as Markov chain Monte Carlo.

The workshop brought together 59 participants (including 24 from the UK, 17 from mainland Europe and 16 from North America) for an intensive 3-day meeting at CRiSM, University of Warwick. The programme included 20 talks (a mix of invited and contributed), and a lively poster session. Invited speakers were Marc Aerts (Hasselt), Paul Fearnhead (Lancaster), Nils Lid Hjort (Oslo), Harry Joe (UBC), Subhash Lele (Alberta), Kung-Yee Liang (Johns Hopkins), Bruce Lindsay (Penn State), Nancy Reid (Toronto), Neil Shephard (Oxford), Peter Song (Michigan) and Cristiano Varin (Venice).

It was abundantly clear from this workshop—the first to be held in this topic area—that approaches based on composite likelihoods have much to offer in complex problems, and that there is substantial scope for further development, both of unifying principles and of technical aspects. The workshop benefitted greatly from taking place at CRiSM alongside a satellite meeting of the Isaac Newton Institute on Bayesian Analysis of High-Dimensional Data; with well over 100 international researchers present, the two parallel workshops provided many opportunities for cross-fertilization of ideas.

Other sponsors of the workshop were the UK Economic and Social Research Council (through its National Centre for Research Methods) and the Royal Statistical Society (through its Research Section). A prize for the best poster presentation was kindly provided by publishers exhibiting at the workshop, and was awarded jointly to Moreno Bevilacqua (Padova) and Irene Kaimi (Lancaster). The full list of the participants, programme and abstracts with references can be found at <http://go.warwick.ac.uk/complik2008>

*Composite Likelihood workshop 'survivors' on their last day at Warwick*



# Connecting China

Louis Chen, National University of Singapore, writes:



The Institute of Mathematical Statistics currently has about 4,300 members, of whom only 36.9% are from outside the United States. The Asia Pacific region, which constitutes about 32% of the world population of 6.6 billion, and is the fastest growing economic region in the world, makes up 7.7% of the IMS membership.

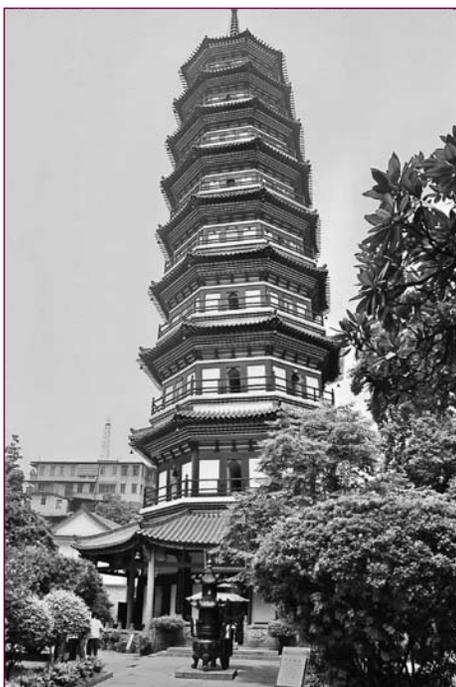
China, which has a population of about 1.3 billion and is the main engine driving the economy of the Asia Pacific, makes up no more than 1.8% of the IMS membership. These figures show that IMS membership in the Asia Pacific region, and, in particular, China, is grossly under-represented. As a leading international society, IMS has to make efforts to broaden its membership base to include more members from countries other than the United States. The creation of the biennial IMS meeting series in Asia and the Pacific Rim is a step in the right direction. It will promote membership and allow IMS to better serve the statisticians and probabilists in the region.

While on the Asia-Pacific subject, one cannot but pay special attention to China. China has transformed itself from being one of the poorest countries in the world in the 1970s, into the world's third-largest economy in this new millennium. It has the potential to become a country with a GDP equal to that of the United States, and with a technology equal to what can be regarded as that

of a superpower within thirty to forty years. It produces five times as many engineers and scientists as America. A vast number of Chinese students are studying overseas, in particular, in the United States. While many of them remain overseas after graduation, more and more are returning to China and thereby contributing to the development of the country.

Within China itself, higher education has undergone unprecedented reform, with vast resources invested into the development of the top universities. I was in China for the first time in 1989 and I have noticed that the salaries of university professors have since then risen by thirty to forty times. According to the National Natural Science Foundation of China, its annual financial allocation rose from 1.97 billion yuan in 2002 to 3.62 billion yuan in 2006 [100 yuan is roughly US\$15, or €9]. Based on the statistics released by the Chinese Ministry of Science and Technology, the annual R&D expenditure rose from 89.57 billion yuan in 2000 to 245.00 billion yuan in 2005.

Given China's huge population, its development is unmatched by any other country. It is a country which IMS cannot ignore in its efforts to reach out to more statisticians and probabilists outside the United States. Any successful effort by IMS to connect with China will not only benefit the potentially large statistical community in China, but also IMS itself. The joint meeting of IMS and the Chinese Society of Probability and Statistics in Beijing in 2005 was a good starting point. That meeting attracted more than 400 participants. IMS China, to be launched in Hangzhou in June this year to enable statisticians and probabilists in mainland China to overcome practical obstacles in joining IMS and participating in its activities, is the next logical step. Its coming launch augurs well for the statistical community in China and I wish it great success.



Left: In Guangzhou (formerly known as Canton) is the Flower Pagoda, part of the Buddhist Temple of the Six Banyan Trees. According to Wikitravel, it is one of the most popular attractions in Guangzhou. The temple dates back to the sixth century, while the pagoda predates it by about 300 years.

Right: the traditional board game, Wéiqí (also known as Go), originated in ancient China, centuries before its earliest known references in 5th century BC writing.



# Developing professional contacts in China

Nanny Wermuth, Professor of Biostatistics at Chalmers University of Technology



and Göteborg University, Sweden, writes:

My main research contacts with Chinese statisticians

go back about 20 years, when Zhi Geng from Peking University started to extend my work on collapsibility of parameters for arbitrary discrete distributions and for conditional Gaussian distributions. We tried to exchange ideas on work in progress. At the time, I was still at a German university and our exchanges were by regular mail, not by e-mail, so really too slow to turn into a closer cooperation. Nevertheless, it was exciting to see how we approached similar problems in quite different ways.

Then the fiftieth biennial conference of the International Statistical Institute was to be held in Beijing in August 1995. My children were grown up enough to be left

with friends for a while so that my husband and I could actually travel to China.

Whenever I had travelled before, I tried to learn at least some basic words of that country's language ahead of time, but this time it was clear to me that I would not even be able to read any street signs, or explain to a bus or cab driver where I wanted to go. However, it turned out not to be a problem. With the name of the conference site and the name of the hotel on a piece of paper, we were always helped to find our way, quickly and safely.

The conference itself was superbly organized, the excursions well-planned and impressive. In between the conference sessions of interest to me, we had enough time to watch the stunning traffic on the main roads pass by: a seemingly unending number of cars and bicycles moving fast and smoothly together. We walked in parks and in the more quiet back streets where in the nice August weather lots of people were spending time outside and did not mind us

watching them.

Finally, I met Zhi Geng in person. I never asked him and we never talked about it, but presumably it was not only me who did not know whether the colleague would be male or female. At that occasion, he asked David Cox and me whether we could give lectures on graphical Markov models at some later time in Beijing.

This we did, and we both enjoyed the warm hospitality given to us by colleagues and their students. On that trip, and on later ones, I was also able to visit several universities in Hong Kong and Taiwan. So now, I think, I can distinguish whether someone speaks Mandarin or Cantonese, but I still do not understand a word. Instead, when I have another small research workshop in Sweden this summer in which two former students of Peking University will be participating, our common workshop language will be English, and we will be looking forward to learning more about common research topics.



Above: a quiet street in Hangzhou.

Right: According to Wikipedia, in Chinese culture, the bamboo (zhú), plum blossom (méi), orchid (lán), and chrysanthemum (jú) are collectively referred to as the Four Noble Ones. These four plants also represent the four seasons and, in Confucian ideology, four aspects of the junzi ('prince' or 'noble one').



Photo: Wikimedia/Mantfred Heyde

# China and Mathematical Statistics

Peter Hall, University of Melbourne, Australia, writes:



Statistical science would look very different today if so many outstanding young Chinese statisticians had not travelled to the west and made their careers abroad. Without those pioneers, contemporary academic statistics would undoubtedly be less theoretical, and therefore would not benefit nearly as much from the insight and perspective that theory can uniquely provide.

Those western nations, such as my own, that through misguided government policy did not take advantage of the opportunities offered by the emigration of highly talented young Chinese statistical scientists, have fallen behind their competitors. For example, it is no accident that Australia and a number of European countries struggle to fill academic positions in statistics, while the US fills them relatively easily. The operation of this advantage over the last two decades has ensured that the US today has a pre-eminent position in statistical science that it has, arguably, not enjoyed so completely before.

Not only have brilliant young Chinese statisticians contributed substantially to this competitive advantage, their superb skills have allowed them to partially reshape statistics research to suit their own outlook and preference. Their abilities with theory, mentioned earlier, are just one example of the instruments that have wrought this transformation. Chinese statisticians have shown a great deal of interest in modern statistical problems that rely heavily on new mathematical developments, and which draw relatively little on traditional approaches and concepts. Therefore their work has given a very substantial boost to such areas, for example to contemporary nonparametric statistics. Their leadership in this field is a major reason for its considerable influence today.

This predilection for non-traditional research seems to be due in part to the fact that many young Chinese statisticians did not have an extensive classical training in statistics. For example, unlike statisticians of my generation trained in the British culture of statistics, few of them had much exposure to Kendall and Stuart's *Advanced Theory of Statistics* before starting their graduate training abroad. However, many had an excellent grounding in mathematical analysis, enabling them to make remarkably fast progress in areas such as optimality theory and, more recently, inference from very high dimensional data. Their unconventional outlook equipped them well for pioneering work at the modern frontiers of our field, where firm adherence to a classical viewpoint can actually be a disadvantage.

Indeed, there is no area of statistics today where Chinese statisticians are not having a significant impact. In parametric, nonparametric and semiparametric modelling; using Bayesian and frequentist ideas; in applications to engineering, the physical and biological sciences and medicine; and on all the contemporary frontiers of statistics, from bioinformatics to signal detection; Chinese-born statisticians are providing extraordinary levels of leadership.

Now, as some of the major contributors approach middle age, they find that their ingenuity and skills have transformed the field where they made their reputations. This must be very satisfying—to see that their own efforts, both individually and collectively, have taken their discipline to such heights, and in such new and interesting directions.

The cohesiveness of the Chinese extended family builds a strong bridge between expatriate Chinese scientists and their homeland. This ensures that China will continue to benefit, for many years to come, from the brilliant men and women who left in their youth to make their scientific fortunes abroad. In terms of its reliability, strength and endurance, this linkage is arguably firmer than the cultural bonds that link the citizens of any other nation to their compatriots.

It is fair to argue that through this route, the successes of China's expatriate scientists bring benefits to China that far exceed those which would have been possible had the scientists all stayed at home. On their regular trips back to China they set up new research institutes and deliver countless hours of lectures, providing young Chinese men and women with invaluable opportunities for learning statistical science from its current world leaders. Far from being lost to China, the expatriate generation is reinvesting in its homeland through high-level education, research, and the creation of unrivalled opportunities for the next generation of Chinese statisticians. Other nations would give a great deal to occupy the same seat at the heart of modern statistical science.

IMS China will facilitate, and at the same time benefit from, these connections. It will support statistical science in China by linking it to high-level statistics research around the globe. And it will provide a conduit through which China's own rapidly growing achievements in statistics will have the influence they deserve in other nations. IMS China is a great idea!

# Introducing the IMS China Committee

Jianqing Fan writes:

According to the IMS China Guidelines, I needed to appoint five executive members and fifteen regular members of the IMS China Committee during its initial phase, in consultation with the ad hoc Committee on IMS China, which was led by two IMS fellows, **Xuming He** and **Zhiming Ma**. I am delighted that I have been able to form an extremely strong leadership committee. Professor **Jia-an Yan**, a prominent scholar on martingales and stochastic calculus and a member of the Chinese Academy of Science, has kindly agreed to serve as the inaugural chair of the committee, with **Shige Peng** (member of the Chinese Academy of Science), **Ning-Zhong Shi** (President of Northeast Normal University), **Min Chen** (Vice President of the Academy of Mathematics and System Science, Beijing) and **Zhengyan Lin** (a distinguished professor of Zhejiang University) as executive members, and **Xiaotong Shen** (University of Minnesota) as the IMS representative on the executive committee. In addition, another fifteen leaders of the Chinese probability and statistics community from various parts of China have kindly agreed to serve as IMS China Committee members: **Jinwen Chen** (Tsinghua University), **Zengjing Chen** (Shandong University), **Hengjian Cui** (Beijing Normal University), **Fuqing Gao** (Wuhan University), **Jianhua Guo** (Northeast Normal University), **Shuyuan He** (Peking University), **Boqi Miao** (University of Science and Technology of China), **Jiangang Ren** (Sun Yeh-sen University), **Niansheng Tang** (Yunan University), **Rongming Wang** (Eastern China Normal University), **Yongjin Wang** (Nankai University), **Yuan Wei** (Renmin University), **Zhenhai Yang** (Beijing Polytechnic University), **Jiangang Ying** (Fudan University) and **Dan Yu** (Institute of System Science, Academia Sinica).

Fragrant Hills pagoda.



Photo: Wikimedia/Shizhao

## ***A Message from Dr Jia-an Yan, chair of the IMS China Executive Committee***

I am deeply honored to chair the IMS China Executive Committee, and view the establishment of IMS China as an important step for the probability and statistics community in China to become better integrated into the world. The IMS has a history of excellence in scholarship, and IMS China will promote the same excellence in China. The need for probability and statistics research is usually greater in more developed countries. The rapid social and economic development in China means that we need a stronger probability and statistics community in this fast-developing country.

During its initial years, IMS China will reach out to our colleagues in mainland China, and encourage broader participation of Chinese scholars in IMS-sponsored activities. We will encourage student membership, and promote international collaborations in research and education. We will team up with the Chinese Society of Probability and Statistics, the Chinese Mathematical Society, and other Chinese societies, to help train the next generation of scientists and scholars who have expertise in stochastics.

The IMS China welcomes IMS members from other countries to visit Chinese institutions and collaborate with our colleagues to promote and disseminate research in probability and statistics. We have benefited greatly from international exchanges, and Chinese scholars are able and eager to contribute more to our profession. I believe that IMS China will be a very real facilitator for international exchanges and collaborations. With broader participation of Chinese scholars, our profession will be a lot stronger. With the help of the IMS, I am confident that our profession will become a more important contributor to scientific and economic developments of China.

I call upon my colleagues in China to join IMS China for a simple reason, that is, we all share the mission of the IMS.



### Jia-an Yan, Chair of IMS China

Dr. Jia-an Yan, Chair of the IMS China Executive Committee, is Professor in the Academy of Mathematics and Systems Science, Chinese Academy of Sciences. He graduated from the University of Science and Technology of China in 1964, and is

widely recognized as an influential leader in the field of probability and stochastic analysis in China.

Yan is the author/co-author of nine books and more than 80 research articles. He has made several important contributions to martingale theory, stochastic analysis, and mathematical finance. His lemma on the decomposition of a local martingale and his “elementary” definition of stochastic integrals provide a simple approach for studying properties of stochastic integrals with respect to semi-martingales. His characterization on a class of convex sets of integrable random variables, often known as “Yan’s Theorem” or “Kreps-Yan Theorem”, has become an important tool in the study of the fundamental theory of asset pricing. His generalization of the well-known theorems of Gross and Minlos in infinite dimensional analysis has played a significant role in the field, and a framework for the white noise introduced by Meyer and Yan has been cited in the *Encyclopaedia of Mathematics*.

Yan was a council member of the Bernoulli Society for Mathematical Statistics and Probability, 1997–2001. He serves, or has served, on the editorial boards of several international journals including *Annals of Probability* and *Stochastic Analysis and Applications*. He is an editor of *Acta Mathematicae Applicatae Sinica*. He was elected a member of the Chinese Academy of Sciences in 1999, and was an invited speaker at the International Congress of Mathematicians in 2002.

Yan’s honors and awards include: First Class Natural Science Prize of the Chinese Academy of Sciences in 1992, Second Class National Natural Sciences Prize of China in 1993, Ho Leung Ho Lee Prize of Scientific and Technological Progress in 2006, and Hua Loo-Keng Mathematical Prize in 2007.

Five representative publications of Dr Yan are:

Yan, J.A., Caractérisation d’une classe d’ensembles convexes de  $L$  ou  $H$ , Séminaire de Probabilités, XIV (1980), *Lecture Notes in Math.* 784, Springer, 220–222.

He, S.W., Wang, J.G., Yan, J.A., *Semi-martingale theory and stochastic calculus*, Science Press, CRC Press, 1992.

Yan, J.A., A numeraire-free and original probability based

framework for financial markets, *Proceedings of the ICM 2002*, Vol III, 861–871.

Jin, H., Yan, J.A., and Zhou, X.Y., Continuous-Time Mean-Risk Portfolio Selection, *Ann. I. H. Poincaré - PR* 41, 2005, 559–580.

Xia, J.M., Yan, J.A., Markowitz’s portfolio optimization in an incomplete market, *Mathematical Finance*, 16(1), 2006, 203–216.



### Min Chen, Treasurer of IMS China

Min Chen (PhD 1996), an executive member of the IMS China Committee, is Professor and Vice President of the Academy of Mathematics and Systems Science, Chinese Academy of Sciences. His research area includes asymptotic theory

in parametric and nonparametric regression models, time series analysis, financial engineering, and risk analysis. He has published over 70 articles in statistical theory and applications, and has been a principal investigator in a number of important research projects. He has traveled to Hong Kong and Taiwan to promote academic exchanges, as well as to Canada for international collaboration.

Dr. Chen has played a significant role in recent years in organizing national and international conferences in China and in promoting international exchanges and collaboration with overseas scholars.

Since 2005, he has served as Deputy Director of the Center for Statistical Research at the Chinese Academy, overseeing major activities of the Center. His five representative publications are: An, H.Z., and Chen, M. (2003) *Nonlinear Time Series Analysis*. Shanghai Scientific and Technical Publishers, China.

Chen, M., Yuen, K.C. and Zhu, L. (2003). Asymptotics of the goodness-of-fit test for a partial linear model with randomly censored data, *Science in China*, 46, 145–158.

Wong, H., Liu, F., Chen, M., and Ip, W.C. (2008). Empirical likelihood-based diagnostics for heteroscedasticity in partial linear models, *Computational Statistics and Data Analysis*, in press.

Chen, M. and An, H.Z. (1998). A note on the stationarity and the existence of moments of the GARCH model. *Statistica Sinica*, 8, 505–510.

Chen, G. and Chen, M. (2001). On a class of nonlinear AR(p) models with nonlinear ARCH errors. *Austral. & New Zealand J. Statist.*, 43, 445–454.

# IMS China Committee: *continued*



## **Zhengyan Lin, Program Secretary**

Dr. Zhengyan Lin, Program Secretary of the first IMS China Executive Committee, is a distinguished professor in the Department of Mathematics, Zhejiang University. Lin is well-known for his research on limit theorems in probability and statistics, and

sample path properties of stochastic processes. His publications include seven books and over 180 articles, and his books on limit theory under mixing conditions are widely read in China and abroad. His honor list includes a 1997 Award for National Natural Science Advancement in China, a 2002 Chinese Ministry of Education Award for Natural Science Advancement, and an entitlement of Top Scientist of Zhejiang Province in 2005. Lin was Vice President of the Chinese Probability and Statistics Society from 2002 to 2006, and currently serves on the editorial board of the Chinese Journal of Applied Probability and Statistics. Lin travels internationally to promote academic exchanges, and has been visiting professor in a number of universities, including Purdue University (USA), Carleton University (Canada), National University of Singapore, Yonsie University (Korea), and University of Western Australia. Lin has been a mentor for a large number of students, many of whom are now active members of the IMS. Lin's five representative publications are:

Lin, Z. Y. and Lu, C. R. (1992). *Strong Limit Theorems*. Science Press and Kluwer Academic Publishers, Beijing and Dordrecht.

Lin, Z. Y. and Lu, C. R. (1997). *Limit Theory on Mixing Dependent Random Variables*. Science Press and Kluwer Academic Publishers, Beijing and Dordrecht.

Lin, Z. Y., Lu, C. R. and Zhang, L. X. (2001). *Path Properties of Gaussian Processes*. Science Press and Zhejiang University Press.

Lin, Z. Y. (2005). Strong laws of R/S statistics with a long-range memory sample. *Statistica Sinica*, 15, 819-829.

Lin, Z. Y. (1995). On large increments of infinite series of Ornstein-Uhlenbeck processes. *Stochastic Processes and Their Applications*, 60, 161-169.



## **Shige Peng, Executive Member**

Dr. Shige Peng (PhD 1986), an executive member of the IMS China Committee, is Professor at the Institute of Mathematics, Shandong University, a distinguished professor awarded by the Ministry of Education of China under the Cheung

Kong Scholarship Program, and a member of the Chinese National Academy of Sciences. He received his Diplôme d'Habilitation à Diriger des Recherches from University of Provence, France, in 1992. His research interests include nonlinear expectations and stochastic calculus, mathematical finance, and stochastic control systems. He is a major contributor to the theory of backward stochastic differential equations, and to the general maximum principle for optimal stochastic controls. His list of honors and awards include the First Prize of Science and Technology by the Education Commission of China in 1994, the Su Buchin Applied Mathematics Award in 2006, and Ho Leung Ho Lee Prize for Scientific and Technological Progress of 2007. His five representative publications are:

Adapted Solution of a Backward Stochastic Differential Equation. *Systems and Control Letters*, 14, 55-61, 1990, (with E. Pardoux)

Backward Stochastic Differential Equation in Finance.

*Mathematical Finance*, 1997, 7, 1-71 (with N. El Karoui and M.-C., Quenez).

Backward SDE and Related  $g$ -Expectation, in *Backward Stochastic Differential Equations*. Pitman Research Notes in Math. Series, 364, El Karoui Mazliak edit. 141-159, 1997.

Monotonic Limit Theorem of BSDE and Nonlinear Decomposition Theorem Of Doob-Meyer's Type. *Probability Theory & Related Fields*, 113, 473-499, 1999.

Filtration Consistent Nonlinear Expectations and Related  $g$ -Expectations, *Probability Theory & Related Fields*. 123, 1-27, 2002 (with F. Coquet, Y. Hu and J. Memin).



## **Xiaotong Shen, Appointed IMS China Executive Committee Member**

Dr Xiaotong Shen is Professor of Statistics at the University of Minnesota. He received his PhD from the University of Chicago in 1991. He is a Fellow of the IMS and of the American Statistical Association. He

is well known for his contributions to likelihood-based inference, semiparametric and nonparametric models, classification and machine learning. He co-chaired the 2007 international Conference on Bioinformatics in Hangzhou and the 2008 International Conference on Machine Learning and Data Mining in Beijing. His five representative publications are:

Shen, X., and Wong, W. H. (1994). Convergence rate of sieve estimates. *The Annals of Statistics*, 22, 580-615.

Wong, W. H., and Shen, X. (1995). Probability inequalities for

likelihood ratios and convergence rates of sieve MLEs. *The Annals of Statistics*, **23**, 339-362.

Shen, X. (1997). On methods of sieves and penalization. *The Annals of Statistics*, **25**, 2555-2591.

Liu, Y. F., and Shen, X. (2006). Multicategory SVM and psi-learning-methodology and theory. *Journal of the American Statistical Association*, **101**, 500-509.

Shen, X., and Huang, H. (2006). Optimal model assessment, selection and combination. *Journal of the American Statistical Association*, **101**, 554-568.



### Ning-Zhong Shi, Executive Member

Dr Ning-Zhong Shi (PhD 1989), executive member of the IMS China Committee, is Professor and President of Northeast Normal University. As an influential statistician and university administrator in China, he has played major roles in a

number of research projects sponsored by National Natural Science Foundation and the Ministry of Education of China. His expertise

includes order restricted inference, multivariate analysis, and several areas of applied statistics. He has traveled to Japan, Canada, and Singapore as a visiting professor, and serves on a number of journal editorial boards in mathematics and statistics. He has mentored a large number of students, many of whom are playing important roles in statistics research and education throughout China. Five representative publications, chosen from a collection of 70 articles: Shi, N.Z., Zheng, S.R., Guo, J.H. (2005) The restricted EM algorithm under inequality restrictions on the parameters. *Journal of Multivariate Analysis*, **92**: 53-76.

Shi, N.Z., Zheng, S.R. (2004) The maximum likelihood estimates of expected frequencies under the loop order. *Statistica Sinica*, **14**: 283-295.

Wang, D.H., Song, L.X. and Shi, N.Z. (2004) Estimation and test for the parameters of ARCH(q) under ordered restriction, *Journal of Time Series Analysis*, **25**(4): 483-499.

Shi, N.Z. and Geng, Z. (1996) Multiple isotonic regression. *Journal of the Royal Statistical Society C*, **45**: 266-273.

Shi, N.Z. (1991) A test of homogeneity of odds ratios against order restrictions. *Journal of the American Statistical Association*, **86**: 154-158.

## IMS Collections: new issues published

The first two issues of the new *IMS Collections* series have been published.

**Volume 1** in the series, *Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen* is edited by N. Balakrishnan, Edsel Pena and Mervyn J. Silvapulle. This volume covers “beyond parametrics” approaches which include nonparametrics, semi-parametrics, Bayes methods and many others. The volume reviews some of the recent developments in this direction, focuses on some new methodologies and highlights their applications, and suggests some interesting open problems and possible new directions for further research. 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 5 decades bear testimony to his work.

**Volume 2**, *Probability and Statistics: Essays in Honor of David A. Freedman* is edited by Deborah Nolan and Terry Speed. This special volume contains contributions from Freedman’s friends and colleagues on a broad array of topics in probability and statistics. Included here are probability articles on convex distribution functions, Dutch book, a Markov chain, and Brownian motion; statistics papers on projection pursuit, multivariate likelihood, multiple testing, French multivariate analysis, and influence functions; and papers that present historical and philosophical perspectives on probability and statistics. As a tribute to

Freedman’s eminence as a consultant and applied statistician, the chapters in this volume also cover a diverse set of application areas, including the US census undercount, DNA evidence in the courtroom, earthquake prediction, hormone replacement therapy, seal foraging, and machine scoring of open-ended exam questions.

Both volumes are priced at US\$65 for IMS members (\$108 for non-members). To order, please contact the IMS Dues and Subscriptions Office (see page 2) or you can order securely online at <https://www.imstat.org/secure/orders/imsbooks.html>



# In Conversation: Zhi-Ming Ma



**Zhi-Ming Ma**  
is President of  
the Chinese  
Mathematical  
Society.

*Q: Professor Ma, you co-chaired the IMS China ad hoc committee in the phase leading to the establishment of IMS China. In your view, how will IMS China help Chinese scholars in probability and statistics? How can the IMS benefit from a broader participation of Chinese scholars?*

*A:* In recent years more and more Chinese statisticians and probabilists have been able to engage in research on the international stage. The IMS is devoted to the development and dissemination of the theory and applications of statistics and probability. I hope that IMS China will promote a broader participation of Chinese scholars in IMS activities, and will become an important new bridge connecting Chinese scholars with our colleagues outside China. Clearly, such a bridge will benefit both Chinese scholars and the Institute of Mathematical Statistics as a whole.

*Q: China has pursued an open policy for several decades now. What are the obstacles today preventing Chinese scholars from playing a bigger role on the international stage?*

*A:* One of the challenges is for Chinese scholars to invent new ideas of our own and develop academic schools with our own characteristics.

*Q: Can you describe some areas in probability and statistics where researchers in China are playing a leading role?*

*A:* Although in recent years I have been involved in research concerning the application of statistics and probability in random networks and information retrieval, my major field is probability theory and

stochastic analysis. Therefore I would confine myself to talk about only the area of probability theory. I am proud of my colleagues, Jia-an Yan, Mufa Chen, Shige Peng and others, who have made contributions to the development of probability theory and stochastic analysis. They are internationally renowned for their work. In addition, a large number of publications (including articles and monographs) have been written by Chinese scholars, and an increasing number of Chinese scholars are presenting their talks at various international conferences or workshops. Many Chinese scholars now serve as editors of international journals, or serve as officers in various academic organizations. All these are signs that the Chinese scholars have made great progress on the international stage. But we know that there is still a gap between China and many developed countries. We will do our best to make more contributions towards the development of statistics and probability at the international level.

*Q: You are the President of the Chinese Mathematical Society (CMS). What is the membership of CMS? Roughly how many members are in probability and statistics?*

*A:* There are about 57,000 members in the Chinese Mathematical Society. I have no data about how many CMS members are in probability and statistics, but at the 8th Annual Meeting of Probability and Statistics, organized by the Chinese Probability and Statistics Society in 2006, there were about 500 participants.

*Q: In China, the number of doctoral students in probability and statistics is relatively small, even relative to other areas of mathematical sciences. Do you think that the trend is being reversed?*

*A:* The situation is different from university to university. I tried to get some data

to answer your question accurately, but it is not so easy to have complete data. Taking the Chinese Academy of Sciences as an example, among all the doctoral students registered in the Academy of Mathematics and Systems Science in 2007, 12 percent of them are in probability and statistics, as compared to 6.6 percent in 2002. I expect that the number of graduate students in probability and statistics will increase, because probability and statistics are becoming more and more important in modern science and in our society.

*Q: You are an organizer of the joint educational program between the University of Bielefeld, Germany, and the Chinese Academy on Stochastics and Real World Models. What motivated such programs?*

*A:* There have been long standing successful collaborations between scholars of the University of Bielefeld and Chinese scholars in probability and stochastics. In 1992, for example, Professors S. Albeverio, M. Röckner and myself were awarded a Max-Planck research prize for our joint work. We chose our International Graduate School in the research direction of ‘Stochastics and Real World Models’; the reason is described in the IGK website as follows: “Random phenomena appear in many aspects of our present day world, in its scientific description and its technological and societal transformation—sometimes as a small perturbation, but sometimes also as a force of great impact. Hence it is not surprising that stochastics, the mathematical theory of random processes, has grown in great strides since its inception ... in parallel with the explosion of science and technology in the past century.”

*Q: Do you think that more international programs will involve Chinese scholars?*

*A:* Sure.

# Rick's Ramblings: *Remembering China*

This little essay is well suited to the column's name, because it gives random recollections of two trips to China. Along the way I will make light of some of the things I encountered, so I should say at the outset that (i) I admire the Chinese probabilists who did excellent work in difficult circumstances, and (ii) the facts I quote come out of my aging brain, so they may not be totally reliable.

I moved from UCLA to Cornell in the summer of 1985. Earlier that year, Frank Spitzer had been to China and he arranged for me to visit Wan-ding Ding at Anhui Normal University in Wuhu, for a month in the winter of 1986. At that point Wuhu was not one of the 30 or so cities that American tourists were allowed to visit, so when my wife and I arrived the only other foreigners were three Christian missionaries "disguised" as English teachers.

After one night in a boring, but warm, hotel room, we were moved into a large suite once occupied by Chairman Mao—who was perhaps used to the fact that the guy who shoveled coal into the furnace went to bed about 11pm, so things were pretty cold by the time he got up again at 7 the next morning. Our accommodations were only part of the VIP treatment: even though it was only a short walk to the lecture room, a spiffy 1940s vintage Russian-made car with hand sewn upholstery would pick me up for the shorter drive.

In the lecture room there was an electric heater, but if you turned on more than one heating element it would blow out the circuit. So during the breaks in the lectures, we would huddle around a metal dish in which charcoal was burned. I lectured in my down jacket, so by the end it was covered with chalk dust. Though the conditions were basic, the students were energetic, and one in particular, Jin-wei Cheng, had done some very nice work on his own

in particle systems. One must remember that at this time, professors worked in difficult conditions in China. Academics were "elitists" so during the darkest days of the Cultural Revolution they were sent to the countryside to farm, and even at the time I visited, their pay was lower than that of factory workers.

Chinese hosts like to torment their guests with banquets, it seems. We had read before visiting that there would be dozens of courses, so we tried to pace ourselves by eating very little of each one. My pregnant wife was able to use her condition to escape from some of the food. I had no excuse to avoid the many toasts with beer and little cups of clear "liquid fire." You knew you were in trouble when a course came which your hosts could not translate... One of my least favorite dinner memories came from a plate of whole shrimp. "Eat whole thing," I was told, and I crunched away unhappily on the shell, legs, and internal organs.

During our visit, we were invited to dine at Wan-ding Ding's home, a modest one bedroom apartment, which shared a kitchen with several other units. We sat down to a table set with 4 or 5 dishes and happily ate some of each, not realizing that there were many, *many* more to come. By the end we could barely swallow!

At the end of the trip we spent some time in Beijing. We went to the Great Wall and climbed a very steep section in a howling cold wind. We saw the summer palace with its lakes frozen, marveled at Chinese acrobats, visited the Forbidden City, and stood on the vast Tiananmen Square.

Two years later I returned in the Fall of 1988 to lecture in a probability program at the Nankai Institute, which was founded with the help of S.S. Chern. As you might guess, the first program in 1987–1988 was in differential geometry, but probability, which has a strong tradition in China, was

Rick Durrett rambles down memory lane for some "random recollections" of his visits to China



the second. China was opening up to the West and the VIP treatment was gone. When I arrived I was shown my hotel room and lecture hall and given a bicycle.

Living in the guest quarters and dining in the restaurant, I met many visitors from other fields, and went on bike rides exploring the town. There were not very many cars, so the typical scene on two-lane roads was half a lane of bicycles on either side, and a flurry of activity when two vehicles came toward each other in the shared middle lane. The big intersections where six roads came together were more treacherous. Not knowing the rules of the road, we would stay in the middle of our stream of bicycles and settle for whatever road we ended up on.

Later that academic year China would change dramatically. I can remember being at Virginia Tech at a meeting on the "Mathematics of Random Media." Varadhan had just come back from China with some hair-raising tales. Greg Lawler was slated to go to China soon after the meeting, but as we watched the TV news reports, we realized that his trip was not going to happen.

I haven't been back since, but Greg returned for the International Congress in Beijing, where once again, visiting mathematicians were given the VIP treatment.

There is much that Chinese and American probabilists can learn from each other, so I hope that the doors will remain open, for a two-way exchange of ideas.

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# Terence's Stuff: *Memoirs*

Terry Speed pays tribute this month to Pao Lu Hsu, "the greatest mathematical statistician to come from China"



I have always enjoyed reading memoirs, biographies and obituaries, and I really like the "conversations" series in *Statistical Science*. I'm curious about peoples' experiences: where they came from, what they did, what they went through, and where they ended up. Recently my colleague Erich Lehmann published *Reminiscences of a Statistician: The company I kept*. I thought it was a delight. Intimate portraits are presented of over 60 mathematicians and statisticians, one of whom was Pao-Lu Hsu (Xu Bao-lu), without doubt the greatest mathematical statistician to come from China.

Hsu was born in 1910 in Peking, into a family from the lake city of Hangzhou, where the first meeting of IMS China will soon take place. The bare facts of his life are readily available, for example, in a short note in the *Annals* published nine years after his death in Beijing in 1970, and in a few other places. A translation of a tribute written by two of his Peking University mathematical colleagues and contemporaries for a memorial meeting after his death, can also be found in his *Collected Papers*. These appeared in 1982, edited by his student Kai Lai Chung. More can be found in the biography *Neyman* by Constance Reid, in remarks by Kai Lai Chung in the *Collected Papers* and in his own book *Chance & Choice: Memorabilia*, and in a few other places, such as *Statistical Science* "conversations".

Hsu was a mathematician, probabilist and mathematical statistician of great power and versatility. Neyman ranked

him alongside Wald, and after looking at his papers, one must agree. The depth and breadth of his contributions are truly impressive. He obtained his BSc degree in at Tsinghua University in 1933, after which he worked for two years as an assistant at Peking University. He then went to England, spending the period 1936–40 at University College, London, studying under Neyman, at the same time visiting Cambridge, presumably to study more mathematics. He took a University of London PhD in 1938, and a DSc in 1939, and, according to Neyman, then spent a year with Hademard in Paris before returning to China in 1940. The Sino-Japanese War had broken out in 1937, and Peking University had moved to Kunming, in Yunnan province, so Hsu went there. Among others, he taught Kai Lai Chung, who later wrote, "Some of the old [mathematical] volumes ... were kept in caves to preserve them from air raids. (We did not actually live in caves, but frequently had to run to them for hours at a stretch under raids or alerts.)" During World War 2, in his letter to Neyman, who by then was in Berkeley, Hsu mentioned starvation. Neyman worked hard to get Hsu to visit him, and when this finally happened, it was a joint visit: a semester at Berkeley, to be followed by one at Columbia with Hotelling, Wald and others. Hsu arrived in the summer of 1945, and taught during the Fall semester. Among other things, he gave Erich Lehmann his PhD thesis topic, and took part in the First Berkeley Symposium on Probability and Statistics. After his semester in Columbia, where he started as thesis advisor to Al Bowker, he moved with Hotelling to Chapel Hill, and spent the next year there. Bowker followed.

In 1947 Hsu departed for China once more, permanently. He left behind a very strong and positive impression, and some

lecture notes that were to inspire Ingram Olkin and Walter Deemer to write a paper. They could only get in touch with Hsu via E.S. Pearson in England, for the United States did not have any relations with China and so letters could not be sent directly from one place to the other. Eventually he replied, saying he did not want to be a co-author, but did want to include a few lines at the end. This communication seems to be the last between Hsu and anyone in the US.

In 1969, Neyman was planning the Sixth Berkeley Symposium, and wondered what had become of Hsu. No-one there had heard from him since he returned to his native land in 1947. Shortly after that Symposium, Neyman made an effort to contact Hsu, only to learn that he had died in 1970. The only account of his last 23 years in China is that given by his Beijing colleagues in his *Collected Papers*. We learn of chronic tuberculosis soon after he returned to China, of his hospitalization, and his refusal to go overseas to recuperate. We are told that he continued his teaching and research from his home, on a very wide range of topics, and that he was a devoted and beloved teacher. It is clear that he suffered greatly during the Cultural Revolution, and died before it ended.

We should remember and honor Pao-Lu Hsu as one of the giants of our field.

Pao-Lu Hsu



# OBITUARY: Andrei Yakolev

## 1944–2008

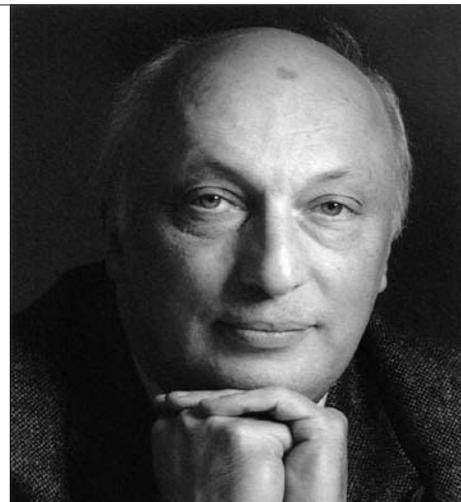
ANDREI YAKOVLEV, Professor and Chair of the Department of Biostatistics and Computational Biology at the University of Rochester, died on February 27, 2008.

Andrei was born and raised in Leningrad (now St. Petersburg, Russia), his father a mathematician and senior naval officer. Although he was interested in mathematics, he sought a different career. He earned an MD (Leningrad, 1967), followed by a PhD in cell biology (Pavlov Institute of Physiology, 1973), and finally a DSc—Russia's highest degree, required to qualify for full professor—in mathematics (Moscow State University, 1981). He set out on a career of research, applying mathematics and statistics to basic questions in biology and medical science. His unusual combination of training positioned him to transcend the boundaries and cultures of the worlds of mathematics, statistics, biology and medicine, and he did so throughout his career.

Andrei Yakovlev was a natural leader. He chaired departments during 26 of his 41-year post-MD career. He founded and chaired the Department of Biomathematics in the Central Research Institute of Roentgenology and Radiology (Leningrad, 1978–88). He then chaired the Department of Applied Mathematics of Leningrad State Polytechnical University (1988–92). Frustrated by bureaucratic restrictions in academia, he left Russia in 1992, visiting several universities and research institutes before settling at the Huntsman Cancer Institute in Salt Lake City as chair of Biostatistics (1996–2002). His final position was as chair at Rochester (2003–2008), with a mandate to expand the activities of Biostatistics into Computational Biology. Under his leadership, the faculty tripled and grant support expanded greatly.

His honors included membership in the Russian Academy of Natural Sciences (1992), a von Humboldt Award (1994), a Guggenheim Fellowship (1999), Fellowship of IMS (1998) and ASA (2000), Honorary DSc at Idaho State (2002). He was an advisor to the World Health Organization and to the US Environmental Protection Agency. He gave over 150 invited lectures in Europe and the US after leaving Russia, and served as Associate Editor of *Annals of Applied Statistics* and of *BMC-Biology Direct*. He became a US citizen in 2005.

Andrei was foremost a researcher. He authored four research monographs and over 200 publications, many jointly with literally dozens of collaborators, among them biomathematicians, probabilists, statisticians, biologists, geneticists and medical scientists from various fields. Each publication was directed towards a solution of a biological or medical-science problem, but included innovative mathematical developments. Even a largely probabilistic or statistical paper was identified as having such a purpose. He made definitive and lasting contributions to a stunning number of fields: branching stochastic processes, especially multi-type age-dependent processes and associated statistical inference; stochastic models in radiation biology; cell population dynamics; carcinogenic risk assessment; stochastic models of carcinogenesis; cancer growth/progression/detection; optimal schedules of cancer surveillance and screening; optimization of radiation cancer treatment; cure models in survival analysis; statistical inference from micro-array gene expression data; genetic regulatory networks; and on and on. His collaborators without exception attribute the innovative direction of their joint work to Andrei, their unquestioned leader. He



Andrei Yakolev

was at the height of his scholarly activity, with seemingly endless energy.

Indeed, he was a master at stimulating colleagues and fellow researchers to think afresh. He regularly uncovered faults and omissions in established work, and sought new approaches and solutions. Here is a brief mention of a few, drawn from his work in microarray analysis:

- *the popular technique of normalization hides more than it clarifies;*
- *false discovery rate methods are highly unstable in correlated data;*
- *strong dependencies in gene expression data erode usefulness of pooling across genes;*
- *and since gene expression data are invariably aggregated over a random and unobserved number of cells, ignoring this leads to faulty statistical and network analysis.*

He and colleagues made important contributions directed towards overcoming each of these shortcomings.

He was often appalled at the quality of refereeing and grant reviewing, feeling that personal biases often trumped open discussion and the advancement of science. He argued for an open system, as adopted by *BMC-Biology Direct*.

Andrei had uncanny power of persuasion, often motivating people to seek new directions and to attain seemingly unattainable goals. He took special care of junior colleagues, providing inspiration, assurance, research ideas, and tirelessly assisted with

# Letters to the Editor

Letters on any issue of interest to IMS members are welcome. Email the Editor: [bulletin@imstat.org](mailto: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.

grant submissions and the like. Although a person with strong opinions on virtually every subject—and never shy about expressing them—he was a very gentle man who genuinely cared very deeply about the people with whom he interacted.

Dr Yakovlev's scientific legacy does not consist only of ideas, methods and results. Most importantly, he left behind scientific principles and research paradigms that will guide his co-workers and students for decades to come. He forged them through incisive analysis, trial and error, and excruciating—sometimes heated and fierce—debates with his colleagues, students and co-workers.

Still, Andrei could be the life of the party. He enjoyed playing the piano, collecting art and engaging in lively conversation about the arts, politics, history, and of course science.

On February 26, after sending a revised manuscript to colleagues late in the evening, he retired, and in the early morning hours suffered a massive heart attack, and died. He will be sorely missed, by his family (wife Nina and 11-year-old son Yuri), friends, collaborators, colleagues, and indeed the scientific community at large.

*Jack Hall and Leonid Hanin, with contributions from colleagues and friends*

## IMS Council Members

*Maury Bramson, Merlise Clyde, John Einmahl, Jun Liu, Daniel Peña, Martin Barlow, Frank Den Hollander, Iain Johnstone, Karen Kafadar, Xiao-Li Meng, Montse Fuentes, Geoffrey Grimmett, Maria Eulalia Vares, Jon Wellner, Alan Welsh*

**Election results coming soon!**

*Dear Editor,*

I have just come across the *IMS Bulletin* no. 37(2) of March, and the section in it devoted to “good refereeing”. I am actually wondering about Rick Durrett's statement, that “you don't need to check every detail of the paper if you think the approach is solid. The author's name will be on the paper, not yours.” But what if the reviewer's name were indeed on the paper? This is in fact the case in some journals (“paper presented by...” — which does not exactly mean “refereed by”). This might be used as a recognition of the referee's work, and at the same time as a way to ensure one's commitment to quality refereeing.

Sincerely,

*Jean-Baptiste Caillaud*

Bourgogne University, Dijon, France

*Dear Editor,*

I have found the articles on good referring in the March 2008 issue of *IMS Bulletin* very helpful for me as a junior researcher and referee. I have some questions about re-referring as well as some comments on referee awards.

There is one situation that I think is not unusual but not addressed in the four articles. Dr Stein mentioned the situation for re-referring a tentatively accepted paper. But what about a situation where the referee rejects a paper and then is asked to review the revision a few months later. As the author, I would expect the review delayed at the hand of the referee who rejected the paper. As the referee, I would be reluctant to review the paper a second time. Similarly, a referee may reject a paper submitted to one journal, only to find it end up in his/her hand from another journal. I guess the delay in these re-referring situations would be much longer than those first-round reviews.

My questions for Drs Marden, Stein, Meng and Durrett are then, (on the referee side) what are your suggestions to a referee in this situation? And (on the author side) is there any way to improve the efficiency under these situations to ease the authors' anxiety?

I like the idea of awarding excellent referees. Actually, I think a more aggressive goal of keeping a performance database of referees is also achievable with the same amount of work. The database will be used not only for rewarding good referees but also identifying bad referees who the AEs should shun. I would suggest that because the AEs are already involved with these submissions, a simple evaluation procedure will be more realistic. Promptness and helpfulness are the two major concerns about referees. Promptness of a referee can be recorded simply as the reviewing time between getting the paper and submitting the report. Helpfulness would be a rating, say on the scale of 0 to 10, on the referee from the AE. The best referees should be defined as those who always respond within certain time frame (say 2 months) and provide the most helpful comments. So besides their current duties, the AEs now only need to record three more numbers (starting time, ending time, and a score of helpfulness) for each referee report they get. These referee performance records should be only accessible to the Editors, or at most the Editorial Board, to protect AEs from the consequences of bad evaluations about referees.

*Pang Du*

Department of Statistics, Virginia Tech

# JSM Preview: *IMS Program highlights*

Josée Dupuis and Eric D. Kolaczyk, both of Boston University, are IMS Invited and Contributed Co-Chairs for this year's Joint Statistical Meetings in Denver. They write:



There is an excellent group of IMS invited sessions awaiting attendees at this year's Joint

Statistical Meetings! These sessions are sure to provide their audiences with an exciting glimpse of a variety of topics at the frontier of our discipline. In addition, many of the sessions focus on intriguing problems at the interface of statistics and other areas.

The fun starts Sunday, August 3, with a session oriented towards the problem of multiple testing, a topic that remains one of keen interest in the face of the continuing trend towards 'data rich-information poor' measurement paradigms across the sciences. ***Multiplicities in Statistical Analysis*** (#9, organized by Peter Mueller) contains three talks summarizing recent Bayesian advances in this area, which in turn reflect some of the output of a recent SAMSI session on the same topic. The week ends on Thursday, August 7, with a related session, ***Advances in Variable Selection*** (#497, organized by Edward George). And in between, we have ***Mixture Models: A Tool for Multi-Layered Clustering and Dimension Reduction*** (#336, organized by Surajit Ray), on Wednesday, August 6.

The analysis of non-traditional data types underlies the talks in two other sessions. Regression on manifolds, the fitting of curves and surfaces, and object-oriented data analysis are featured in ***Manifold Learning and Object Oriented Data Analysis*** (#211, organized by Haonan Wang), on Tuesday, August 5. Similarly, symbolic data (such as structured variables, intervals, lists, and the like) are the theme of the session ***Symbolic Data: Theory***

***and Methods*** (#461, organized by Anand Vidyashankar) on Thursday, August 8.

Also, arguably less-than-traditional, and increasingly prevalent in fields ranging from biology to sociology to the Internet, are network-indexed data. A session on the ***Inference of Structure and Information Flow in Networks*** (#253, organized by Eric Kolaczyk) on Tuesday, August 5, highlights new developments in this area, with talks on inference from dynamic network processes and from co-occurrence data, as well as on the design of network traffic measurement schemes.

Some of the most interesting and challenging problems for our discipline are routinely generated at the interface with other disciplines, and two of the sessions promise to provide a glimpse of problems of precisely this nature. The latest trend in human genetics is to query the entire genome in the search of genetic variants associated with traits and diseases. ***New Statistical Methods for Genomewide Association Studies*** (#43, organized by Danyu Lin), on Sunday, August 3, showcases some of the statistical challenges arising from such a wealth of genetics information. And at the far opposite end of the spectrum, in terms of scale, we have ***Planets Around Other Suns: Inference and Experimental Design for Exoplanet Studies*** (#120, organized by Tom Loreda), on Monday, August 4, in which two talks will show how statistics is playing a critical role in the search for life elsewhere in the Universe.

Finally, we would like to draw special attention to the inaugural ***Best of the Annals of Applied Statistics*** (#426, organized by Josée Dupuis), on Wednesday, August 6. This session, designed to highlight what the editors of the recently launched *AOAS* feel are the year's top contributions, features talks on how political parties should position themselves relative

to each on important issues (Andrew Gelman), stochastic modeling in nanoscale biophysics (Samuel Kou), and sparse statistical modeling in genomics (Mike West).

As indicated by these invited sessions, there is a dizzying array of different disciplines motivating recent statistical developments. Several of these areas, such as network analysis, genetics and genomics, have experienced an exponential growth in the amount of data collected in recent years. In the topic contributed ***Modern Statistical Machine Learning for Complex and High Dimensional Data*** (#91, organized by Yufeng Liu) on Monday, August 4, five talks discuss approaches to deal with such large and complex datasets.

Finally, the IMS contributed program appears to be just as diverse as the invited program, with sessions on topics such as recent advances in regression and linear modeling, the analysis of time-indexed data, and statistical estimation and testing in several contexts, including stochastic processes and high dimensional data.

Be sure to visit the online program at <http://www.amstat.org/meetings/jsm/2008/onlineprogram/> for a complete listing of IMS sponsored sessions.

We hope to see you in Denver in August!

*With over 300 days of sunshine a year in Denver and over 90 brew pubs, restaurants and sports bars, lower downtown (LoDo) is a great place to pass some time before taking in a Rockies game or indulging in some of the best shopping in the region.*



# IMS Meetings around the world

IMS sponsored meeting

**7th World Congress in Probability and Statistics  
(71st IMS Annual Meeting and 7th Bernoulli Society World Congress)  
July 14–19, 2008, National University of Singapore**

**w** <http://www.ims.nus.edu.sg/Programs/wc2008/index.htm>

**e** [wc2008\\_general@nus.edu.sg](mailto:wc2008_general@nus.edu.sg)

Chair of the Local Organizing Committee: Louis Chen; Chair of Scientific Program Committee: Ruth Williams  
The seventh joint meeting of the Bernoulli Society and the Institute of Mathematical Statistics will take place in Singapore from July 14 to 19, 2008. This quadrennial joint meeting is a major worldwide event featuring the latest scientific developments in the fields of probability and statistics and their applications.



Wikimedia/Jani Patokallio

## Dates for Singapore Congress

- 15 May:** Discounted registration ends
- 15 June:** Normal rate registration ends;  
Last day for cancellation of registration with partial refund of fee
- 16 June:** Registration with walk-in rate begins

The program will cover a wide range of topics and will include invited lectures by the following leading specialists: **Martin Barlow**, University of British Columbia (Medallion Lecture); **Richard Durrett**, Cornell University (Wald Lectures); **Jianqing Fan**, Princeton University (Laplace Lecture); **Alice Guionnet**, École Normale Supérieure de Lyon (Lévy Lecture); **Mark Low**, University of Pennsylvania (Medallion Lecture); **Zhi-Ming Ma**, Academy of Mathematics and Systems Science, Beijing (Medallion Lecture); **Peter McCullagh**, University of Chicago (Neyman Lecture); **Douglas Nychka**, US National Center for Atmospheric Research (Public Lecture); **Oded Schramm**, Microsoft Research (BS–IMS Special Lecture); **David Spiegelhalter**, University of Cambridge and MRC Biostatistics Unit (Bernoulli Lecture); **Alain-Sol Sznitman**, ETH Zurich (Kolmogorov Lecture); **Elizabeth Thompson**, University of Washington (Tukey Lecture); **Wendelin Werner**, Université Paris-Sud (BS–IMS Special Lecture).

There will be 34 invited paper sessions highlighting topics of current research interest (<http://www.ims.nus.edu.sg/Programs/wc2008/invitedsessions.htm>), as well as many contributed talks and posters. The conference schedule is available at the website above.

The venue for the meeting is the National University of Singapore. Singapore is a vibrant, multi-cultural, cosmopolitan city-state that expresses the essence of today's New Asia. It offers many attractions both cultural and touristic, such as the Esplanade and the Singapore Night Safari.

The IMS Child Care Initiative encourages and supports the participation at IMS Annual Meetings (including this Congress) of IMS members who have child care responsibilities. For application information see <http://www.imstat.org/meetings/childcare.htm>



Singapore's Esplanade theatres are a world-class venue for performing arts

Wikimedia/Formulax

## NUS satellite meeting

The National University of Singapore's Institute for Mathematical Sciences is organizing a satellite meeting to the Congress: **Symposium in honor of Kiyosi Itô: Stochastic Analysis and Its Impact in Mathematics and Science, July 10–11, 2008**

**w** <http://www.ims.nus.edu.sg/Programs/kiyosi08/index.htm>

*At a glance:  
forthcoming  
IMS Annual  
Meeting and  
JSM 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

## 2011

**IMS Annual Meeting @  
JSM:** Miami Beach,  
FL, July 31–  
August 4, 2011

## IMS co-sponsored meeting

## IMS China International Conference on Statistics and Probability

June 11–13, 2008

Hangzhou, China

w <http://www.stat.umn.edu/~statconf/imschina/>

We are pleased to announce the IMS China International Conference on Statistics and Probability 2008 in Hangzhou, China, to observe the launch of IMS China, a sub-division dedicated to IMS members in China. The meeting will feature plenary lectures (**Zhidong Bai**, Northeast Normal University, China; **Lawrence Brown**, University of Pennsylvania; **Richard Durrett**, Cornell University; **Iain Johnstone**, Stanford University; **Shige Peng**, Shandong University, China), and invited and contributed talks in all areas of probability and statistics. Invited speakers from outside China, in probability and statistics, are: Felix Abramovich, Jiguo Cao, Jin Cao, Ngai Hang Chan, Louis Chen, Zhen-Qing Chen, Jianqing Fan, Jin Feng, James Fu, Frank Gao, Feifang Hu, Niels Jacob, Jiashun Jin, Zhezhen Jin, Sam Kou, Bing Li, Hongzhe Li, Ker-Chau Li, Runze Li, Wenbo Li, Yi Li, Feng Liang, Jun Liu, Regina Liu, Yu-feng Liu, Mark Low, June Lou, Tian Lu, Ping Ma, Yanyuan Ma, Dan Nettleton, Peihua Qiu, Annie Qu, Jamie Robbins, Dongchu Sun, Yanqing Sun, Hao Wang, Huixia Wang, Lan Wang, Naisyin Wang, Steven Wang, Suojin Wang, Xiaofeng Wang, Yazhen Wang, Yuedong Wang, Dongsheng Wu, Aihua Xia, Yimin Xiao, Yuhong Yang, Xiangrong Yin, Kai Yu, Chuming Zhang, Heping Zhang, Jian Zhang, Hongyu Zhao, Linda Zhao, Harrison Zhou, Jianhui Zhou, Mai Zhou, Ji Zhu, Li-Xing Zhu. *Invited speakers from within China (in probability)*: Jinwen Chen, Zengjing Chen, Fuqing Gao, Fuzhou Gong, Xianping Guo, Zhiyuan Huang, Yingqiu Li, Zenghu Li, Zhengyan Lin, Zaiming Liu, Jiagang Ren, Yanxia Ren, Zhonggen Su, Wensheng Wang, Yongjin Wang, Zhen Wu, Lixin Zhang. *Invited speakers from within China (in statistics)*: Hengjian Cui, Jianhua Guo, Shuyuan He, Yuan Li, Huazhen Lin, Jinguan Lin, Yihui Luan, Niansheng Tang, Jinde Wang, Qihua Wang, Zhaojun Wang, Xizhi Wu, Xingzhong Xu, Liugen Xue, Yanning Yang, Yong Zhou, Zhongyi Zhu, Guohua Zou.

In celebration of the establishment of the IMS China, the *Journal of Nonparametric Statistics (JNPS)* has agreed to devote a special issue to papers inspired from the inaugural IMS China International Conference on Statistics and Probability (2008). The special issue will not be a Proceedings volume; rather, it will serve as a venue for conference speakers and participants to publish their papers in a special themed issue of the journal that is devoted to nonparametric statistics and related topics. Detailed instructions on submission will be announced at a later date. See the meeting website for further information: <http://www.stat.umn.edu/~statconf/imschina/special.html>.

Hangzhou, in Zhejiang Province, China, is the location for the IMS China meeting in June. Famed for its natural scenery, Hangzhou and West Lake (Xī Hú) have been immortalized by countless poets and artists. A leisurely walk around the lake will take you about 5 hours. Visitors can also hire boats to explore the lake and its two islands.



Photo: Wikimedia/Jacob Ehnmark

## IMS co-sponsored meeting

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

November 12–14, 2008

Leuven, Belgium

NEW

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 part of a research project on “Nonparametric and semiparametric techniques and robust methods in statistical analysis”, funded by the Research Fund of the KULeuven. The general theme of the workshop is semi- and nonparametric analysis and robust statistical methods, including flexible smoothing and penalization; model selection; nonparametric functional estimation; modelling dependencies and inference for copulas; robust multivariate outlier detection; and semi- and nonparametric methods in time-series analysis.

## IMS co-sponsored meeting

## JSM2008

August 3–7, 2008

Denver, Colorado

w [www.amstat.org/meetings/jsm/2008/](http://www.amstat.org/meetings/jsm/2008/)

See preview of IMS sessions on page 18!

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



## Key Dates: REGISTRATION NOW OPEN

- May 1: JSM registration & housing opens; Preliminary PDF program online
- May 12: Manuscripts due to session chairs
- June 26: Early Bird Registration deadline, after which increased fees apply

## IMS co-sponsored meeting

**International Workshop on Recent Advances in Time Series Analysis****June 8–11, 2008****Protaras, Cyprus****w** [www.ucy.ac.cy/~rats2008/](http://www.ucy.ac.cy/~rats2008/)

IMS Representative on the Program Committee: Rainer von Sachs (UC Louvain, Belgium).

Program includes: **Murray Rosenblatt**, **Michael Neumann**, **Peter Brockwell**, **Rainer Dahlhaus**, **Peter Robinson**, **Dag Tjøstheim**, **Richard Davis**, **Dimitris Politis**, **Anestis Antoniadis**, **Helmut Luetkepohl**, **Manfred Deistler**, **Thomas Mikosch**.

## 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/](http://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](mailto:rtd1@cornell.edu)

## IMS co-sponsored meeting

**ISNI2008: International Seminar on Nonparametric Inference****November 5–7, 2008****Vigo, Spain****w** [www.isni2008.com](http://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 co-sponsored 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 Neumeier** (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).

Contributed papers are welcome (deadline **23 June 2008**). The *Journal of Nonparametric Statistics* will devote a special issue with contributions to the meeting.

Please visit [www.isni2008.com](http://www.isni2008.com) for further information. Pre-registration is now open.



**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 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.

Anyone who has received a PhD in (or after) 2003, or expects to receive a PhD in 2008, is eligible to attend.

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

Abstracts for these papers and posters will appear on the website above. To apply, please submit a letter of interest, curriculum vitae and title and abstract to:

*Rebecka Jornsten, Department of Statistics,  
Rutgers University, NJ 08854*

**e** [rebecka@stat.rutgers.edu](mailto:rebecka@stat.rutgers.edu)

OR

*Ryan Elmore, Department of Statistics,  
Colorado State University Campus  
at Fort Collins, CO 80523*

**e** [elmore@stat.colostate.edu](mailto:elmore@stat.colostate.edu).

Electronic mail is preferred for abstract submission. Deadline for receipt of applications is **February 1, 2008**. Please apply promptly since the number of participants is limited.

Priority will be given to first time participants. Women and minorities are encouraged to apply. Also, contingent on the availability of funds, support to defray travel and housing costs will be offered.

**IMS sponsored meeting****2008 WNAR/IMS Meeting  
June 22-25 Davis, CA**

The Statistics Department at the University of California, Davis, cordially invites you to participate in the 2008 western regional meeting of WNAR and the IMS. Following up on the traditions established at the two previous WNAR/IMS meetings hosted by the Davis campus, the meeting will feature an outstanding program of invited speakers, several plenary addresses, special sessions for student papers, sessions and activities for new researchers and a short course on widely applicable developing methodology. There will be a hosted wine-tasting reception on Sunday evening, June 22, and a Special Banquet on Tuesday, June 24 commemorating the Conference and celebrating the 100th anniversary of the campus.

**WNAR Presidential Invited Address**

Jerry Lawless  
University of Waterloo  
**WNAR Program Chair**  
Patrick Heagerty  
University of Washington

**IMS Program Chair**

Charles Kooperberg  
Fred Hutchinson Cancer Research Center  
**IMS 2008 Medallion Lecturer**  
Peter Bartlett  
University of California, Berkeley

**Local Organizer**

Frank Samaniego & Chris Drake  
University of California, Davis

**WNAR/IMS Western Regional Meeting Short Course: "R Survey Package Analyses for Two Phase Studies, with Applications in Epidemiology" by T. Lumley and N. Breslow.**

**June 22, 2008**

**w** <http://conferences.ucdavis.edu/wnar-ims2008>

Hosted by the Department of Statistics, University of California, Davis.

**WNAR/IMS Western Regional Meeting**

**June 23–25, 2008**

**w** <http://conferences.ucdavis.edu/wnar-ims2008>

Annual west-coast meeting, hosted this year by the Department of Statistics, University of California, Davis, featuring invited and contributed paper sessions and plenary speakers **Jerry Lawless** and **Peter Bartlett**. Registration and wine-tasting reception (in the Davis tradition) on Sunday, exquisite Conference Banquet on Tuesday, Student Paper Competition, Young Researchers Luncheon. Program Chairs Patrick Heagerty [heagerty@u.washington.edu](mailto:heagerty@u.washington.edu) and Charles Kooperberg [clk@fhcrc.org](mailto:clk@fhcrc.org); Local organizers: Chris Drake [cmdrake@ucdavis.edu](mailto:cmdrake@ucdavis.edu) and Frank Samaniego [fjsamaniego@ucdavis.edu](mailto:fjsamaniego@ucdavis.edu).

**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  
IWAP2008: International Workshop in  
Applied Probability  
July 7–10, 2008**

**Université Technologie de Compiègne (UTC), Compiègne, France**

**w** <http://www.lmac.utc.fr/IWAP2008/>

Contacts: Nikolaos Limnios **e** [nikolaos.limnios@utc.fr](mailto:nikolaos.limnios@utc.fr) and Joseph Glaz **e** [joseph.glaz@uconn.edu](mailto:joseph.glaz@uconn.edu) (IMS Rep)

This workshop will be an interdisciplinary conference in the field of probability with applications to several areas of science and technology, including actuarial science and insurance, bioinformatics, biosurveillance, computer science, data mining, finance, learning theory and target tracking. Its aim is to bring together, and to foster exchanges and collaborations among, scientists working in applications to any field, including those listed above.

**IMS co-sponsored meeting  
4th Cornell Probability Summer School**

**June 23 – July 4, 2008. Cornell University, Ithaca, NY**

**w** <http://www.math.cornell.edu/~durrett/CPSS2008/>

This Fourth Cornell Probability Summer School will focus on probability problems that arise from ecology. The main lecturers will be **Claudia Neuhauser** (Minnesota), **Sylvie Méléard** (Paris), **Simon Levin** (Princeton), and **Ted Cox** (Syracuse). In addition there will be one or two one-hour talks by **Steve Ellner** (Cornell), **Alan Hastings** (U.C. Davis), **Steve Krone** (U. of Idaho), **Nicolas Lanchier** (Arizona State), and **Rinaldo Schinazi** (Colorado Springs).

The conference web page has more information. All participants should fill out the registration form found there. This meeting was partially supported by a grant from the National Science Foundation to the probability group at Cornell University.

**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.



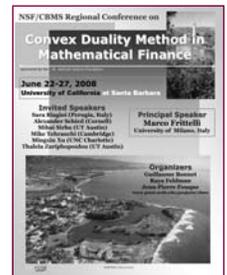
*Berlin's world-famous Philharmonie, designed by Hans Scharoun, is home to the Berlin Philharmonic Orchestra, one of the world's leading orchestras, whose current principal conductor is Sir Simon Rattle, known for his championing of contemporary classical music. The BPO also supports several chamber music ensembles.*

**IMS co-sponsored meeting  
NSF/CBMS Regional Conference on Convex Duality Method in  
Mathematical Finance  
June 22–27, 2008**

**University of California at Santa Barbara**

**w** <http://www.pstat.ucsb.edu/projects/cbms/>

The conference will be held on the seaside campus of the University of California at Santa Barbara. The program will focus on recent developments in applications of the convex duality method to problems in finance.



The distinguished Principal Lecturer, Dr **Marco Frittelli**, Professor of Mathematical Finance at the University of Milano, will deliver 10 invited lectures on the topic. Other one-hour talks will be given by invited speakers: **Sara Biagini** (Perugia, Italy), **Alexander Schied** (Cornell), **Mihai Sirbu** (UT Austin), **Mike Tehranchi** (Cambridge), **Mingxin Xu** (UNC Charlotte), and **Thaleia Zariphopoulou** (UT Austin).

There are no contributed talks, however, afternoons are reserved for informal discussion sessions modeled on the successful example of the Seminar on Stochastic Processes series of conferences. These informal sessions are designed to encourage interaction between young and more senior researchers. Social events include an opening reception, conference dinner and a tour.

Details on the website.

See other NSF/CBMS meetings in the series overleaf.

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

**Topology, C\*-Algebras, and String Duality  
 June 2–6, 2008, Texas Christian University**

Lecturer: **Jonathan Rosenberg**

Greg Friedman and Robert Doran, organizers

817-257-6343, g.friedman@tcu.edu

817-257-7335, r.doran@tcu.edu

<http://faculty.tcu.edu/gfriedman/CBMS>

**Convex Duality Method in Mathematical  
 Finance**

**June 22–27, 2008, University of California,  
 Santa Barbara**

Lecturer: **Marco Frittelli**

Jean-Pierre Fouque, Guillaume Bonnet, and  
 Raya Feldman, organizers

805-893-5637, fouque@pstat.ucsb.edu

805-893-4188, bonnet@pstat.ucsb.edu

805-893-2826 feldman@pstat.ucsb.edu

[www.pstat.ucsb.edu/projects/cbms/](http://www.pstat.ucsb.edu/projects/cbms/)

**Ergodic Ramsey Theory: A Dynamical  
 Approach to Static Theorems**

**June 22–28, 2008, Eastern Illinois University**

Lecturer: **Vitaly Bergelson**

Patrick R. Coulton, organizer

217-581-6276, prcoulton@eiu.edu

[www.u1.eiu.edu/~prcoulton/cbms07/](http://www.u1.eiu.edu/~prcoulton/cbms07/)

**Knots and Topological Quantum Computing  
 July 9–13, 2008, Univ. of Central Oklahoma**

Lecturer: **Zhenghan Wang**

**Ara Basmajian** (Short Course on Knots)

Charlotte Simmons and Jesse Byrne,  
 organizers

405-974-5294, cksimmons@ucok.edu

405-974-5575, jbyrne@ucok.edu

[www.math.ucok.edu/cbms/cbms.html](http://www.math.ucok.edu/cbms/cbms.html)

**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](http://www.math.ksu.edu/~rcastano/CBMS.html)



If you are an IMS member with childcare responsibilities, and you're coming to the IMS meeting and Bernoulli World Congress in Singapore (see the announcement on page 19), you are entitled to apply to the IMS Child Care Initiative. The IMS will reimburse members up to 80% of the costs of privately-arranged childcare at the IMS Annual Meeting. See <http://imstat.org/meetings/childcare.htm> for details. Deadline: **June 1**.

\* If you need someone to look after your baby goats, though, you'll need to apply elsewhere.

# Employment Opportunities around the world

## Canada: Montréal

### Position in Statistics

#### Université de Montréal, Canada

The Department of Mathematics and Statistics invites applications for one tenure-track position in statistics at the rank of Assistant professor, starting in June 2009. For more complete information, visit: <http://www.dms.umontreal.ca/Emplois/stat08.pdf>

Le Département de mathématiques et de statistique de l'Université de Montréal sollicite des candidatures à un poste de professeure ou professeur en statistique à plein temps au rang d'adjoint débutant en juin 2009. Les personnes intéressées peuvent consulter la page web suivante: <http://www.dms.umontreal.ca/Emplois/stat08.pdf>

## Cyprus: Nicosia

### University of Cyprus

#### Department of Mathematics and Statistics

The Department of Mathematics and Statistics of the University of Cyprus, invites applications for one position in the field of Probability-Statistics at the rank of Lecturer or Assistant Professor. The official languages of the University are Greek and/or Turkish. For the above position knowledge of Greek is necessary. The deadline for applications is July 24th, 2008. For more information, see <http://www.mas.ucy.ac.cy>

## Switzerland: Lausanne



ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

The Ecole Polytechnique Fédérale de Lausanne (EPFL) invites applications for a faculty position (full professor) in the context of the newly established Swissquote Chair of Quantitative Finance. This position forms a strategic part of plans of EPFL to create a world-class research and teaching initiative in financial engineering.

The successful candidate will establish and lead a vigorous independent research program in a multidisciplinary environment, open to engaging with researchers in related fields across the EPFL campus, such as finance, mathematics, economics, management, computer science and operations research. Depending on the research emphasis of the candidate, the position could be housed in the College of Management ([cdm.epfl.ch](http://cdm.epfl.ch)), the School of Basic Sciences (Mathematics - [sma.epfl.ch](http://sma.epfl.ch)) or the School of Computer and Communication Sciences ([ic.epfl.ch](http://ic.epfl.ch)). The successful candidate will be committed to excellence in teaching and bring new developments to the classroom, in particular in the framework of our new

## Swissquote Chair of Quantitative Finance at the Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Master program in Financial Engineering.

Substantial start-up resources and research infrastructure will be available.

Applications should be submitted before **July 31, 2008**, though late applications may be considered. The starting date is flexible through 2009.

Applications including curriculum vitae, publication list, concise statement of research and teaching interests as well as the names and addresses (including email) of 3 to 6 references should be submitted in PDF format through the link below:

<http://Swissquotechair.epfl.ch>

Contacts: **Prof. Robert Dalang** ([robert.dalang@epfl.ch](mailto:robert.dalang@epfl.ch)), or **jennifer.willenshofer@epfl.ch** for administrative assistance. For general information about EPFL, see the website: <http://www.epfl.ch> EPFL is an equal opportunity employer

# 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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# International Calendar of Statistical Events

IMS meetings are highlighted in maroon with the  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](mailto:erg@imstat.org)

## June 2008

 June 2–6: Texas Christian University. **Topology, C\*-Algebras, and String Duality** [NSF-CBMS]. **w** <http://faculty.tcu.edu/gfriedman/CBMS>

June 2–7: CRM, Montréal. **Mathematical Aspects of Quantum Chaos: Probabilistic Methods in Mathematical Physics** [CRM program] **w** [http://www.crm.umontreal.ca/Mathphys2008/chaos\\_e.shtml](http://www.crm.umontreal.ca/Mathphys2008/chaos_e.shtml)

June 5–6: Kaiserslautern, Germany. **Workshop on Bootstrap and Time Series.** **e** [bootstrap08@mathematik.uni-kl.de](mailto:bootstrap08@mathematik.uni-kl.de) **w** [www.mathematik.uni-kl.de/~bootstrap08](http://www.mathematik.uni-kl.de/~bootstrap08)

 June 8–11: Protaras, Cyprus. **International Workshop on Recent Advances in Time Series Analysis.** IMS Rep: Rainer von Sachs, UC Louvain, Belgium. **w** [www.ucy.ac.cy/~rats2008/](http://www.ucy.ac.cy/~rats2008/)

June 8–11: Charleston, South Carolina. **Southern Regional Council on Statistics (SRCOS) Summer Research Conference: Modern Semiparametric Methods in Action.** Angela Williams **e** [srcos08info@muscd.edu](mailto:srcos08info@muscd.edu) **w** [www.musc.edu/dbbe/srcos2008](http://www.musc.edu/dbbe/srcos2008)

 June 11–13: Hangzhou, China. **IMS-China International Conference on Statistics and Probability.** Contact (China) Zhengyan Lin **e** [zlin@zju.edu.cn](mailto:zlin@zju.edu.cn) or (elsewhere) Xiaotong Shen **e** [xshen@stat.umn.edu](mailto:xshen@stat.umn.edu) **w** <http://www.stat.umn.edu/~statconf/imschina/>

June 11 – July 8: Vancouver, BC, Canada. **2008 PIMS/UBC Summer School in Probability.** **w** <http://pims.math.ca/science/2008/08ssprob/>

June 13–15: Princeton University. **Stochastic Analysis and Applications: from Mathematical Physics to Mathematical Finance.** **w** <http://orfe.princeton.edu/r60/>

June 16–19: Vilnius, Lithuania. **22nd Nordic Conference on Mathematical Statistics (NORDSTAT)** **w** <http://www.nordstat2008.com/>

June 16–28: French National Sailing School, Brittany, France. **2008 Beg Rohu Summer School: Manifolds in Random Media, Random Matrices and Extreme Value Statistics.** **w** <http://www-spht.cea.fr/Meetings/BegRohu2008>

June 18–20: Isaac Newton Institute, Cambridge, UK. **Workshop on Inference and Estimation in Probabilistic Time-Series Models.** **w** <http://www.newton.cam.ac.uk/programmes/SCH/schw05.html>

June 19–21: Université Paul Sabatier, Toulouse, France. **First International Workshop on Functional and Operatorial Statistics.** Contact Karim Benhenni and Sonia Hedli-Griche, Université Pierre Mendes-France, Grenoble. **t** 04 76 82 57 07 **e** [Karim.Benhenni@upmf-grenoble.fr](mailto:Karim.Benhenni@upmf-grenoble.fr) **w** <http://www.lsp.ups-tlse.fr/staph/IWFOS2008>

 June 22–25: University of California, Davis. **2008 WNAR/IMS Western Regional Meeting.** IMS Program Chair: Charles Kooperberg **w** <http://www.wnar.org>

 June 22–27: University of California at Santa Barbara. **NSF/CBMS Regional Conference on Convex Duality Method in Mathematical Finance.** **w** <http://www.pstat.ucsb.edu/projects/cbms/>

 June 22–28: Eastern Illinois University. **Ergodic Ramsey Theory: A Dynamical Approach to Static Theorems** [NSF-CBMS]. **w** [www.ux1.eiu.edu/~prcoulton/cbms07/](http://www.ux1.eiu.edu/~prcoulton/cbms07/)

June 23–27: Isaac Newton Inst, Cambridge, UK. **Workshop on Future Directions in High-dimensional Data Analysis: New Methodologies, New Data Types and New Applications.** **w** [www.newton.cam.ac.uk/programmes/SCH/schw03.html](http://www.newton.cam.ac.uk/programmes/SCH/schw03.html)

June 23–27: Pavia, Italy. **Design and Analysis of Genetic-based Association Studies.** **w** [http://www.unipv.it/statistical\\_genetics.training/training3/](http://www.unipv.it/statistical_genetics.training/training3/)

June 23–28: École Normale Supérieure, Paris, France. **Stochastic Networks Conference 2008.** Chairs: François Baccelli, J. Mairesse. **w** <http://www.di.ens.fr/~baccelli/stonet08.html>

 June 23 – July 4: Cornell University, Ithaca, NY. **4th Cornell Probability Summer School: Probability problems that arise from ecology.** **w** <http://www.math.cornell.edu/~durrett/CPSS2008/>

June 25–28: Stanford University, CA. **Workshop on Algorithms for Modern Massive Data Sets (MMDS 2008).** Organizers: Gunnar Carlsson, Michael Mahoney, Lek-Heng Lim, Petros Drineas. **e** [mmds-organizers@math.stanford.edu](mailto:mmds-organizers@math.stanford.edu) **w** <http://mmds.stanford.edu>

June 26–28: Coimbra, Portugal. **Workshop on Nonparametric Inference: WNI2008.** **w** <http://www.mat.uc.pt/~wni2008>

# International Calendar *continued*

## June 2008 continued

June 26–28: Padova, Italy. **DYNSTOCH 2008**. **w** <http://www.isib.cnr.it/control/gombani/dynstoch2008/>

June 30 – July 5: CRM, Montréal. **Integrable Quantum Systems and Solvable Statistical Mechanical Models [CRM program]**. **w** [http://www.crm.umontreal.ca/Mathphys2008/integrable\\_e.shtml](http://www.crm.umontreal.ca/Mathphys2008/integrable_e.shtml)

## July 2008

July 1–4: Prague, Czech Republic. **ISBIS-2008: International Society of Business and Industrial Statistics**. Milena Zeithamlova **e** [milena@action-m.com](mailto:milena@action-m.com) **w** <http://www.action-m.com/isbis2008>

July 6–11: Montreal, Canada. **MCQMC2008: 8th International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing**. **w** [http://www.crm.math.ca/mcqm08/index\\_e.shtml](http://www.crm.math.ca/mcqm08/index_e.shtml)

July 6–19: Saint-Flour, France. **38th Saint-Flour Probability Summer School**. **w** <http://math.univ-bpclermont.fr/stflour/>

 July 7–10: Université de Technologie, Compiègne, France. **IWAP2008: International Workshop on Applied Probability**. Contact Nikolaos Limnios **e** [nikolaos.limnios@utc.fr](mailto:nikolaos.limnios@utc.fr) and Joseph Glaz **e** [joseph.glaz@uconn.edu](mailto:joseph.glaz@uconn.edu) **w** <http://www.lmac.utc.fr/IWAP2008/>

July 7–11: Utrecht, The Netherlands. **23rd International Workshop on Statistical Modelling (IWSM)**. **w** [www.fss.uu.nl/iwsm2008](http://www.fss.uu.nl/iwsm2008)

July 7–18: ICTP, Trieste, Italy. **Summer School on Stochastic Geometry, the Stochastic Loewner Evolution and Non-Equilibrium Growth Processes**. Marina de Comelli, school's secretary **e** [smr1952@ictp.it](mailto:smr1952@ictp.it) **w** [http://cdsagenda5.ictp.trieste.it/full\\_display.php?ida=a07161](http://cdsagenda5.ictp.trieste.it/full_display.php?ida=a07161)

July 9: Helsinki, Finland. **Nonparametric Bayes 2008**. **e** [npbayes@googlemail.com](mailto:npbayes@googlemail.com) **w** <http://npbayes.wikidot.com>

 July 9–13: Univ. of Central Oklahoma. **Knots and Topological Quantum Computing [NSF-CBMS]**. **w** [www.math.ucok.edu/cbms/cbms.html](http://www.math.ucok.edu/cbms/cbms.html)

July 10–11: National University of Singapore. **Symposium in honor of Kiyosi Itô: Stochastic Analysis and its Impact in Mathematics and Science**. **w** <http://www.ims.nus.edu.sg/Programs/kiyosi08/>

July 13–18: Dublin, Ireland. **IBC2008: XXIVth International Biometric Conference**. **w** <http://www.conferencepartners.ie/ibcdublin2008/>

July 14–17: Berkeley, California. **Workshop on Integrating Computing into Statistics Curricula**. **w** <http://www.stat.berkeley.edu/users/statcur/Workshop2/index.html>

July 14–18: Sandbjerg, Denmark. **Efficient Monte Carlo: From Variance Reduction to Combinatorial Optimization**. In honor of Reuven Rubinstein's 70th birthday. Contact Oddbjørg Wethelund **t** +45 8942 3515 **w** <http://www.thiele.au.dk/Rubinstein/>

July 14–18: Crete, Greece. **International Conference on Statistical Physics (SigmaPhi2008)**. **w** <http://www.polito.it/sigmaphi2008>

 July 14–19: Singapore. **IMS Annual Meeting/7th World Congress in Probability and Statistics**. Local chair: Louis Chen. **w** <http://www.ims.nus.edu.sg/Programs/wc2008/index.htm> **e** [wc2008\\_general@nus.edu.sg](mailto:wc2008_general@nus.edu.sg)

July 15–17: Leeds, UK. **LASR 2008: The Art and Science of Statistical Bioinformatics**. Stuart Barber **e** [workshop@maths.leeds.ac.uk](mailto:workshop@maths.leeds.ac.uk) **w** <http://www.maths.leeds.ac.uk/lasr2008>

July 21–25: Hamilton Island, Australia. **International Society for Bayesian Analysis 9th World Meeting**. **e** [isba08@qut.edu.au](mailto:isba08@qut.edu.au) **w** <http://www.isba2008.sci.qut.edu.au>

July 23–26: Tomar, Portugal. **17th International Workshop on Matrices and Statistics (IWMSO8) in Honor of Professor T.W. Anderson's 90th Birthday**. Contact Professor Francisco Carvalho **t** +351 249 328 100; **e** [fpcarvalho@ipt.pt](mailto:fpcarvalho@ipt.pt) **w** [www.ipt.pt/iwms08](http://www.ipt.pt/iwms08)

July 24–26: University of Vienna, Austria. **Current Trends and Challenges in Model Selection and Related Areas**. **w** [http://www.univie.ac.at/workshop\\_modelselection/](http://www.univie.ac.at/workshop_modelselection/)

July 28 – September 21: National University of Singapore. **Mathematical Horizons for Quantum Physics**. **w** <http://www.ims.nus.edu.sg/Programs/mhq08/index.htm>

 July 29–August 2: Boulder, CO. **11th IMS North American Meeting of New Researchers in Statistics and Probability**. **w** <http://www.stat.rutgers.edu/~rebecka/NRC>

July 29 – August 2: University of Camerino, Italy. **International Conference on Strongly**

Coupled Coulomb Systems. **w** <http://sccs2008.unicam.mm.st/>

## August 2008

 August 3–7: Denver, Colorado. 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](http://www.crm.umontreal.ca/Mathphys2008/loewner_e.shtml)

 August 7–12: Kent State University. 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](http://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](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](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/](http://www.s3ri.soton.ac.uk/ssbs08/)

## September 2008

September 1–5: East Midlands Conference Centre, Nottingham, UK. 2008 International Conference of the Royal Statistical Society. **w** [www.rss.org.uk/rss2008](http://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](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](mailto:oarslan@cu.edu.tr) **w** [www.icors08.org](http://www.icors08.org)

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](mailto: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](http://www.crm.umontreal.ca/Mathphys2008/bose-einstein_e.shtml)

## October 2008

 October 5–7: Cornell University, Ithaca, NY. Workshop for Women in Probability. Program organizers: Lea Popovic and Amber Puha. Local Arrangements: Rick Durrett **e** [rtd1@cornell.edu](mailto:rtd1@cornell.edu) **w** [www.math.cornell.edu/~durrett/www/](http://www.math.cornell.edu/~durrett/www/)

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

## November 2008

 November 5–7: Vigo, Spain. ISNI2008: International Seminar on Non-parametric Inference. **w** [www.isni2008.com](http://www.isni2008.com)

  November 12–14: Leuven, Belgium. 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/>

Continues on page 30

# International Calendar *continued*

## December 2008 continued

**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. **rooth Statistical Mechanics Conference.** **e** Joel Lebowitz lebowitz@math.rutgers.edu

 **December 13–17:** Kansas State 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 15–18:** Grand Hyatt, San Antonio, Texas. **2009 ENAR/IMS Spring Meeting.** **w** www.enar.org/meetings.cfm

## May 2009

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

**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

## July 2009

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

 **July 27–31:** Berlin, Germany. **33rd 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

 **August 2–6:** Washington, DC. **IMS 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

 **August 1–5:** Vancouver, British Columbia, Canada. **JSM2010.**

 **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.**

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## Membership and Subscription Information

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

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The *IMS Bulletin* and webpages are the official news organs of the Institute of Mathematical Statistics. The *IMS Bulletin*, established in 1972, is published 10 times per year. Circulation is 4,698 paper copies (December 2006); the *Bulletin* is also available free online in PDF format at <http://bulletin.imstat.org>; it is usually posted online about two weeks before mailout. Subscription to the *IMS Bulletin* costs \$60. To subscribe, call (301) 634 7029 or email [staff@imstat.org](mailto:staff@imstat.org). The IMS website, [www.imstat.org](http://www.imstat.org), established in 1996, receives over 30,000 visits per month (31,338 in January 2005). Public access is free.

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Issue	Deadline for Advertisement	Online by	Scheduled Mail Date
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6: July	<b>June 1</b>	June 15	July 1
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8: October	<b>September 1</b>	September 15	October 1
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IMS: Organized September 12, 1935

### 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.



This row sequence doesn't add up to 8.



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

Solution 24 from last issue

29	13	14	10	30			
7	2	22	9	7	8	11	
31	9	4	2	5	1	7	3
23	8	6	9	7	2	6	1
11	5	1	3	2	28	9	7
6	27	8	4	9	14	16	
8	1	7	10	1	4	3	2
6	2	3	1	15	7	2	1
33	3	9	2	6	8	1	4
22	8	5	9	17	8	9	

Puzzle 25

	13	16	20	10		15	9
30					15		
					28		
32							
	4			7			
	16			19			
12			16			15	14
			11				
37							
		3			13		
	21	17			23		
22				8			
				11			13
38							
5			29				

Puzzle by www.yoogi.com