

June/July 2014

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## National Academy Members

## US National Academy of Sciences elects new Members and Foreign Associates

The United States National Academy of Sciences announced on April 29, 2014, the election of 84 new members, and 21 foreign associates from 15 countries, in recognition of their distinguished and continuing achievements in original research.

Among those elected is IMS President and Fellow **Bin Yu**, who is Chancellor's Professor in the departments of statistics and of electrical engineering and computer science, at the University of California, Berkeley. Also elected are IMS members **Emery N. Brown**, Warren M. Zapol Professor of Anaesthesia at Massachusetts General Hospital in Boston, and **Emmanuel J. Candès**, Barnum-Simons Professor of Mathematics and Statistics at Stanford University.

Those elected this year bring the total number of active members to 2,214 and the total number of foreign associates to 444. Foreign associates are nonvoting members of the Academy, with citizenship outside the United States.

The National Academy of Sciences is a private, nonprofit institution that was established under a congressional charter signed by President Abraham Lincoln in 1863. It recognizes achievement in science by election to membership, and—with the National Academy of Engineering, Institute of Medicine, and National Research Council—provides science, technology, and health policy advice to the federal government and other organizations.

The full list of new NAS Members and Associates is at <http://www.nasonline.org/news-and-multimedia/news/april-29-2014-NAS-Election.html>



Bin Yu



Emery N. Brown



Emmanuel Candès


[www.imstat.org/elections](http://www.imstat.org/elections)

**IMS elections close on May 30, 2014.  
 Have you voted yet?**

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## IMS Members' News

The UK's Royal Society has elected 60 new Fellows and Foreign Members, among whom are **Geoffrey Grimmett**, **Martin Hairer** and **H. Vincent Poor**.

Geoffrey Grimmett, an IMS Fellow and Council member, is Professor of Mathematical Statistics, Statistical Laboratory, University of Cambridge, and Master of Downing College, Cambridge. The Royal Society website says, "At a time of flowering of probabilistic methods in all branches of mathematics, Geoffrey Grimmett is one of the broadest probabilists of his generation, and unquestionably a leading figure in the subject on the world scene. He is particularly recognised for his achievements in the rigorous theory of disordered physical systems. Especially influential is his work on and around percolation theory, the contact model for stochastic spatial epidemics, and the random-cluster model, a class that includes the Ising/Potts models of ferromagnetism. His monograph on percolation is a standard work in a core area of probability, and is widely cited. His breadth within probability is emphasized by his important contributions to probabilistic combinatorics and probabilistic number theory."



Geoffrey Grimmett

Martin Hairer is Regius Professor of Mathematics, Mathematics Institute, University of Warwick. His research interests are stochastic PDEs, stochastic analysis, functional analysis, and homogenization theory. According to the Royal Society website, he "is one of the world's foremost leaders in the field of stochastic partial differential equations in particular, and in stochastic analysis and stochastic dynamics in general. By bringing new ideas to the subject he made fundamental advances in many important directions such as the study of variants of Hormander's theorem, systematization of the construction of Lyapunov functions for stochastic systems, development of a general theory of ergodicity for non-Markovian systems, multiscale analysis techniques, theory of homogenization, theory of path sampling and, most recently, theory of rough paths and the newly introduced theory of regularity structures."



Martin Hairer

H. Vincent Poor of Princeton University was elected a Foreign Member of the Royal Society. At Princeton, Vince is Dean of the School of Engineering and Applied Science, and the Michael Henry Strater University Professor. His research interests are in the areas of statistical signal processing, stochastic analysis and information theory, and their applications in wireless networks and related fields. Among his publications in these areas is the recent book *Mechanisms and Games for Dynamic Spectrum Allocation* (Cambridge University Press, 2014). An IMS Fellow since 2001 and a former Guggenheim Fellow, Vince is also a member of the National Academy of Engineering, the National Academy of Sciences, and the Royal Academy of Engineering of the UK.



Vince Poor

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# IMS Members' News

## Edward Waymire selected to receive Carver Medal



IMS Council has approved the nomination of Edward Waymire for the 2014 Carver Medal as recommended by the Committee to Select the Carver Award. The citation will read: "To Ed Waymire, for manifold contributions to the IMS in many capacities and in particular for exceptional service to the *Annals of Applied Probability* far beyond his role as its editor."

Ed Waymire is Professor of Mathematics at Oregon State University, and an IMS Fellow.

The Carver Medal was created by the IMS in 2002 in honor of Harry C. Carver, Founding Editor of the *Annals of Mathematical Statistics* and one of the founders of the IMS. The medal is for exceptional service specifically to the IMS and is open to any member of the IMS who has not previously been elected President.

## Researchers receive IJERPH Best Paper Award 2014

What are the human health implications of climate change? There is by now a well established body of evidence about the direct effects of increasing temperature, for example, heat stroke. But is that the full story? It is also possible that air pollution patterns may change as a result of the changing climate, especially ozone, whose production is stimulated by hot weather. In work started at the Statistical and Applied Mathematical Sciences Institute (SAMSI) and later completed with colleagues at North Carolina State University, Howard Chang studied the effect of simultaneous changes in temperature and ozone, using simulations from climate models. Rather than run the model multiple times under different scenarios (a very time-consuming process), Chang and his colleagues devised a statistical approach which saves computation time and also allows them to estimate the uncertainty in their projections. As a result, they find significant increases in projected mortality in the southeastern USA during the period 2041–2050, compared with levels in 2000.

The resulting paper, written by Chang, Jingwen Zhou, North Carolina State University (NCSU) and **Montserrat Fuentes**, NCSU, was awarded the International Journal of Environmental Research and Public Health (IJERPH) Best Paper Award 2014. Their paper, "Impact of Climate Change on Ambient Ozone Level and Mortality in Southeastern United States" received the third prize in the "Articles" category.

Each year the IJERPH Best Paper Award recognizes outstanding papers in the area of environmental health sciences and public health that meet the aims, scope and high standards of the IJERPH journal.

Read the article at: <http://www.mdpi.com/1660-4601/7/7/2866>

More information about the award at: <http://www.mdpi.com/1660-4601/11/1/1192>

= access published papers online

## IMS Journals and Publications

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

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

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

*Annals of Applied Probability*: Timo Seppäläinen  
<http://imstat.org/aap>  
<http://projecteuclid.org/aop>

*Statistical Science*: Peter Green  
<http://imstat.org/sts>  
<http://projecteuclid.org/ss>

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

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

## IMS Co-sponsored Journals and Publications

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

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

*Electronic Communications in Probability*: Anton Bovier  
<http://ecp.ejpecp.org>

*Current Index to Statistics*: George Styan  
<http://www.statindex.org>  
 log into members' area at [imstat.org](http://imstat.org)

*Journal of Computational and Graphical Statistics*: Thomas Lee  
<http://www.amstat.org/publications/jcgs>  
 log into members' area at [imstat.org](http://imstat.org)

*Statistics Surveys*: Donald Richards  
<http://imstat.org/ss>  
<http://projecteuclid.org/ssu>

*Probability Surveys*: Laurent Saloff-Coste  
<http://imstat.org/ps>  
<http://www.i-journals.org/ps/>

## IMS-Supported Journals

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

*Bayesian Analysis*: Marina Vannucci  
<http://ba.stat.cmu.edu>

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

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

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

## IMS-Affiliated Journals

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

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



# IMS-ASC 2014 in Sydney



Australian Statistical Conference  
in conjunction with the Institute of  
Mathematical Statistics Annual Meeting

7 - 10 July 2014  
Australian Technology Park, Sydney



## Program update now available

**w** <http://ims-asc2014.com/program/>

The organizers of the IMS Annual Meeting and Australian Statistical Conference have released an updated copy of the program. You can view the detailed program from the link above. Please note that some speaker sessions are still pending confirmation and the program is still subject to change.

## ASC 2014 Satellite Events

**w** <http://ims-asc2014.com/asc-2014-satellite-events/>

A series of pre- and post conference workshops will support the Conference. The following short courses, workshops and events will be held as satellite events to the Conference:

- ABC in Sydney
- Introduction to R and RStudio
- Introduction to Correspondence Analysis
- Semiparametric Regression
- The fourth Institute of Mathematical Statistics Finance, Probability and Statistics workshop

Click here for more information and bookings. Please note early booking is recommended.

## Social Program

**w** <http://ims-asc2014.com/social-program/>

**Welcome Reception:** The organising committee of ASC - IMS 2014 invite you to attend the Welcome Reception and Poster Viewing Session on Monday 7 July in the Exhibition Hall at the Australian Technology Park. This is a great opportunity to network with old friends and new acquaintances.

**IMS Presidential Address and IMS Awards Ceremony followed by Reception:** All conference delegates are invited to an IMS Reception at the Australian Technology Park on the Tuesday evening (July 8). This function is a great opportunity to network with old friends and new acquaintances. It follows on immediately from the IMS Presidential Address and IMS Awards Ceremony at 6pm.

**Conference Dinner Cruise:** Join us for an unforgettable evening on Wednesday 9th July 2014 for the opportunity to see Sydney Harbour by night... it doesn't get any better than this.

Join your friends and colleagues on a private harbour cruise for a two-course dinner and drinks to enjoy spectacular viewing of the city lights whilst cruising under the Sydney Harbour Bridge and past the Sydney Opera House, magnificent waterfront homes, and the iconic Luna Park.

**Young Statisticians Dinner:** The Young Statisticians Dinner will take place on Tuesday 8th July 2014 at the very tasty Chinese restaurant, Zilver. This is an optional event, to register your interest or book your place please see the link above.

## Conference App - eMobilise

The Organising Committee for ASC-IMS 2014 are also pleased to announce eMobilise, a new web-based event program application. eMobilise is a flexible smartphone application that provides a convenient and innovative way to enhance your experience at the conference and will replace the printing of the full abstract book. Delegates will be able to access this web based application in the lead-up to the event and at the conference venue. We strongly recommend that delegates bring smartphones, tablets and laptops to the event to utilise this service. Complimentary Wi-Fi will be provided at the venue. Some features of eMobilise include:

- Read presenters' abstracts and biographies
- Personalise your program by selecting your favourite sessions to attend
- Social functions details
- Venue maps and hotel information
- Include up to the minute changes on the Conference program and much more

## Register now

Still not registered? What are you waiting for, book in now to secure your place: <http://ims-asc2014.com/registration-page/>

# Vlada's Point: The Workshop

Contributing Editor Vlada Limic continues with a theme she introduced in the March 2014 *Bulletin* issue:

In my first column (<http://bulletin.imstat.org/2014/02/vladas-point-the-introduction/>) I announced my intention to disclose my frustration with a common scientific meeting type called the workshop. My fifteen-plus years of post-graduate research activity should provide me with enough experience to write about it. Nevertheless, I am likely lacking wisdom concerning topics of a controversial nature. In particular, I am aware that at this very moment several probability workshops are being planned worldwide by some of our most respectable colleagues, and that they are all being planned in the format that I am about to criticize. So before launching the critique, let me point out that it is not directed towards any particular event or person, and to remind the reader of my willingness to make visible any of your constructive remarks on the topic (see my previous column). One final caveat: this critique does not apply to the workshops organized in celebration/honor of someone or something. In fact, I believe that here the word “workshop” is simply a misnomer, chosen partly due to its space saving characteristic with respect to “festive colloquium” or a similar designation, and partly due to the unfortunate fact that the formats of meetings of *a priori* different nature do resemble each other quite strongly in reality.

Have you ever participated in a workshop on photography, or on writing in an ancient script, or perhaps on apiculture, gardening, or any similar non-math activity that—just like maths—requires both the understanding of theory and the acquisition of practical skills? If you have, I am glad, for

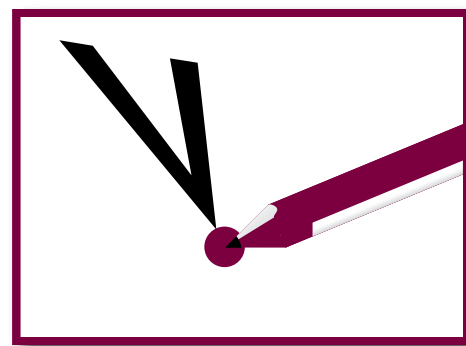
- (i) it is an indication that you have (or at least had) a life, and
- (ii) you are likely to appreciate more quickly the critique to be made.

Regardless of your answer above, I include a brief description of an event from my pre-mathematics past, which turned out to be an important turning point... It will also help me later (in my next column) with discussing desirable features of a math workshop which is learning-oriented.

In the summer of 1988, I participated in a two- or three-week master class in classical guitar, held in a small town on the Istria peninsula by a renowned musician of Catalan origin. We were about 20 participants, pre-selected based on a method I have forgotten, financially supported by a state grant, aged between 15 and 22 approximately, of varying ability in terms of guitar playing technique, originating from four different republics of the then Socialist Federal Republic of Yugoslavia, with the following property in common: we were all quite seriously interested in learning to play better, if not ambitious to become professional players. Several months before the event, we were given scores of the pieces that would be covered, and were told to at least read them well, but ideally to work more on them if we wished to really benefit from the experience—advice each of us heeded with reverence. I omit the details pertaining to the actual format of the class, and instead make several remarks:

- (a) it was truly a learning experience for each and every participant,
- (b) it was not a holiday (each student was pushed to evolve as much as possible),
- (c) part of the time was devoted to individual classes with the master, but we also learnt much by playing together, in the presence of other peers and/or the master musician,
- (d) I played duets with renowned concert guitarists/lutenists of today, and
- (e) before the end of the next school year I understood that becoming a professional musician was not part of my life path.

Even if you disapprove of my style—or a brag



note in (d)—I doubt you can rebut this as a good example of a successful workshop on classical guitar playing.

Consider now a generic Workshop on Special Topic in probability. I will not waste space on details about its format that we all know so well, but will come straight to the point: even an experienced probabilist who actively listens to all (or most of) the talks, will at the end be able to answer briefly the following questions concerning Special Topic: *Who is collaborating with whom? On what kind of new problems? Which techniques they use? What was accomplished/conjectured so far?* ... and will likely not be able to do much more than that. I abstain from commenting on the possibility of acquiring any new practical skills in Special Topic during the meeting.

It seems that more appropriate names for such an event would be “Workshop on Who figures and What features in Special Topic” or simply “Showcase/Marketplace on Special Topic.” It is quite disappointing to see such a dissipation of human, intellectual (often brilliant) and material (often substantial) resources, and even more so when this collective effort is branded as workshop.

My apologies if this sounds severe or curt. Indeed, I regret not having more room for elaboration. Depending on your responses, I could include further observations next time. However, I am also getting impatient about bringing a **WORKshop** into focus.

e vlada.limic@math.u-psud.fr



# ANNUAL REVIEWS

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# OBITUARY: Dennis V. Lindley

## 1923–2013

DENNIS LINDLEY, a key figure in the modern Bayesian school of statistics, died on 14 December 2013 at the age of 90. The pervasive and growing influence of Bayesian methodology on data analysis and decision making might not have happened without the advocacy and persistence of Lindley and a small number of colleagues.

Lindley was born on 25 July 1923 in London, as the only child of a builder. His first ambition was to become an architect, but that became impracticable with the start of World War 2, and instead he was encouraged by his mathematics teacher to try for Cambridge University. He passed the entrance examinations and went to Cambridge in 1941. After being awarded a first class degree in mathematics, Lindley expected to go into the armed forces, but instead was offered a position in the Ministry of Supply, on condition that he attended a statistics course taught by Oscar Irwin.

Lindley later claimed not to have understood Irwin's course, but he nevertheless joined the Civil Service. As well as practical work on statistical quality control and analysis of military test data, Lindley and his colleagues were encouraged to read the key papers in statistics.

After the war, Lindley worked at the National Physical Laboratory, where he published his first paper, a short contribution in *Nature* in August 1946, on problems in regression. This brief work already shows some of the characteristics of many of Lindley's later publications: a precise definition of the problem, an appropriately mathematical approach, and polite but firm pointing out of errors made by others.

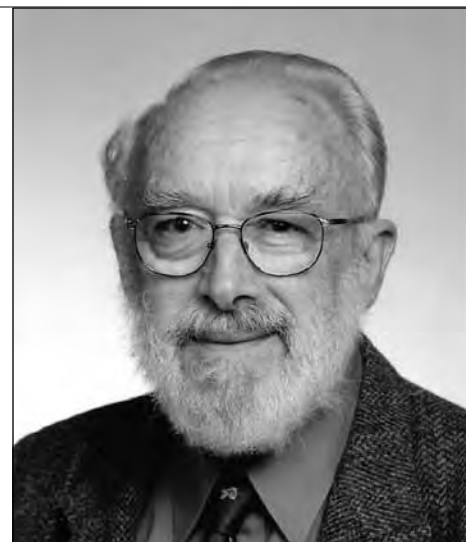
Lindley returned to Cambridge for a further year of study, taking all the statistics courses he could. Then, in 1948, he accepted an academic post at Cambridge, eventually

becoming Director of the Statistical Laboratory.

In his early years at Cambridge, Lindley said that his aim was to provide an axiomatic basis for the frequentist statistical approaches of Fisher, Neyman and Pearson, thus giving them a respectable mathematical basis. Indeed, he read a paper with this aim to the Royal Statistical Society in 1953, taking an approach which (according to Egon Pearson) contained "some very stiff mathematics." Lindley was not the only one attempting this general approach; the first edition of Jimmie Savage's *Foundations of Statistics*, published in 1954, had the same aim. Lindley visited Savage in Chicago in 1954. This interaction, and work with Jack Good, Robert Schlaifer, Bruno de Finetti and others, led to the emergence of a distinctive Bayesian perspective, and in the case of Lindley to a clear subjective Bayesianism. But it also led to serious tensions with the frequentist school, particularly salient at the Fourth Berkeley Symposium in 1960.

Lindley was appointed to the new Chair of Statistics at the University College of Wales, Aberystwyth in 1960. When he moved to University College London in 1967, the contrast between Lindley's approach and the previous orientation of the department was stark. Pat Rivett commented, "It was as though a Jehovah's Witness had been elected Pope." At UCL Lindley was in charge of a vibrant, and largely Bayesian, department—among others, Philip Dawid and Mervyn Stone were teaching there, and Adrian Smith, Jose Bernardo and Tony O'Hagan were among the doctoral students.

But Lindley (later) claimed to dislike administration, and to be bad at it. He discovered that new UCL regulations allowed him to retire early, and in 1977 at the age of 54 he did just that. But he did not retire from



Dennis Lindley

Photo: courtesy of Rowan Lindley

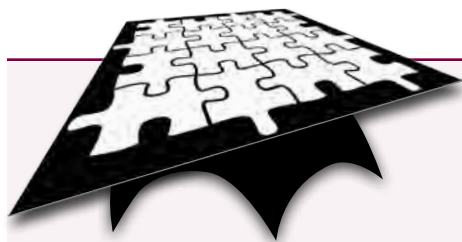
statistics. He divided his time between his home in the west of England and travelling to collaborate with colleagues around the world. He was a founder of the regular Valencia International Meetings on Bayesian statistics, in which he participated enthusiastically for many years.

Dennis Lindley predicted that the 21st century would be Bayesian. In some ways this prediction has come to fruition, driven partly by the development of powerful computing approaches. In a broad sense, we are all sometimes Bayesian. But, while Lindley generally approved of the move to computational and applied work, he remained convinced of the need for a strong philosophical underpinning. In a 1990 paper on the philosophy of statistics, he wrote disapprovingly of one of the Valencia meetings that "many participants did not seem to me fully to appreciate the Bayesian philosophy."

Lindley was the recipient of several honours, including the Royal Statistical Society's Guy Medal in Gold (2002), as well as the informal but enduring honour of having statistical concepts named after him (including Lindley's paradox in inference and Lindley's equation in stochastic processes). He will be missed and mourned.

Lindley is survived by his wife Joan and their three children.

*Professor Kevin McConway  
The Open University, UK*



The *Student Puzzle Corner* contains one or two problems in statistics or probability. Sometimes, solving the problems may require a literature search.

Current student members of the IMS are invited to submit solutions electronically (to [bulletin@imstat.org](mailto:bulletin@imstat.org) with subject “Student Puzzle Corner”). Deadline **June 15, 2014**.

The names and affiliations of (up to) the first 10 student members to submit correct solutions, and the answer(s) to the problem(s), will be published in the next issue of the *Bulletin*.

The Editor’s decision is final.

## Student Puzzle Corner 4

Suppose a parameter  $\mu$  was measured at two different laboratories, of which one is more renowned and reliable than the other. Formally,  $X \sim N(\mu, 1)$ ,  $Y \sim N(\mu, \sigma^2)$ , where  $X, Y$  are independent, and  $\sigma^2 \geq 1$ . Find, explicitly, a 95% confidence interval of finite length for  $\sigma^2$ .

It seems a little odd at first that one can estimate the variance of the second laboratory with only one observation from the second laboratory. In some sense, a more basic question is how will you estimate  $\mu$  in such a case, or what are the maximum likelihood estimates of  $\mu, \sigma^2$ , but they are not being asked here. Just to provide a little context, combining  $P$ -values from different experiments is a widely studied problem. Fisher himself did classic work on that. Combining likelihoods from different experiments and the corresponding asymptotic story is a less studied problem.



### Last issue’s Student Puzzle:

Let  $P, Q$  be two randomly chosen points on the surface of the Earth and let  $D$  be the Euclidean distance between  $P$  and  $Q$ . Assuming that Earth is a perfect sphere of radius 3960 miles, find the exact value of  $E(D)$ . Notice that we are not asking for  $E(D^2)$ , but  $E(D)$  itself.

Airplanes generally travel approximately along the geodesic distance, because to take the path corresponding to the Euclidean distance, one has to go through the interior of the Earth. It is possible to find how much larger the geodesic distance is than the Euclidean distance on the average.

### Last issue’s correct answer

Anirban DasGupta, *IMS Bulletin* Editor, explains:

In the puzzle in the April/May issue, we asked what is the average Euclidean distance between two random points on the surface of the Earth (see left). We can easily calculate the Euclidean as well as the geodesic distance between two fixed points. For example, the geodesic distance between New York and Beijing is about 7,175 miles, and the Euclidean distance is about 6,235 miles, a savings of about 13%. A nearly hilarious question is how much time you’d have saved flying from New York to Beijing if we knew how to fly through the Earth’s interior. The cruising speed of a Boeing 777 is about 580 mph. So, a back-of-the-envelope calculation gives that a nonstop flight along the geodesic would take about 12 hours and 20 minutes, while going through the Earth’s interior at the same speed would take 10 hours and 45 minutes; so you save just about an hour and a half. For travelling from London to Sydney, you’d save 4 hours and 55 minutes; Singapore to Bangkok, you save almost nothing. But what about two random points? We will answer this question below, and you might be surprised that the average savings is just about 11.5%.

We may as well solve the problem for the case of  $n$  dimensions for a general  $n \geq 2$ . Thus, let  $X, Y$  be two random independent picks from the surface of an  $n$ -dimensional ball with radius  $\rho$  and suppose we want to find  $E(\|X - Y\|)$ , where  $\|\cdot\|$  denotes Euclidean norm. Notice that the center of the ball has no effect on the problem and the radius has only a scaling effect; so we may as well take the center to be the origin and the radius to be 1. The expected value of the square of the Euclidean distance is a much easier problem, and indeed, you can show that

*Continues on page 9*



in any number of dimensions, for the unit ball,  $E(\|X - Y\|^2) = 2$ ; Cauchy-Schwarz gives us a quick bound: we must have  $E(\|X - Y\|) \leq \sqrt{2}$ . We will see how the  $\sqrt{2}$  bound gets almost attained when the number of dimensions  $n$  gets large.

Now,  $\|X - Y\|^2 = \|X\|^2 + \|Y\|^2 - 2X'Y = 1 + 1 - 2X'Y = 2[1 - X'Y]$ . Here, as usual,  $X'Y$  denotes the Euclidean inner product. Therefore,  $E(\|X - Y\|) = \sqrt{2} E[\sqrt{1 - X'Y}]$ .

Now, condition with respect to  $Y$ . The conditional expectation  $E[\sqrt{1 - X'Y} \mid Y = y]$  is independent of the unit vector  $y$  and hence, the unconditional expectation  $E[\sqrt{1 - X'Y}] = E[\sqrt{1 - X'e_1}] = E[\sqrt{1 - X_1}]$ , where  $e_1$  is the first standard unit vector. Use now the fact that if  $X$  is a random pick from the surface of an  $n$ -dimensional ball of radius 1, then its first coordinate  $X_1$  has the density  $c(1 - x^2)^{(n-3)/2}$ ,  $-1 \leq x_1 \leq 1$ , where the normalizing constant  $c = \frac{\Gamma(\frac{n}{2})}{\sqrt{\pi} \Gamma(\frac{n-1}{2})}$ . Thus,

$$E[\sqrt{1 - X'Y}] = c \int_{-1}^1 \sqrt{1 - x} (1 - x^2)^{(n-3)/2} dx = c \int_{-1}^1 (1 - x)^{\frac{n}{2}-1} (1 + x)^{\frac{n-1}{2}-1} dx.$$

This becomes a Beta integral by changing variables; just substitute  $z = \frac{1+x}{2}$ . On a little algebra, we eventually get:

$$E(\|X - Y\|) = \sqrt{2} c 2^{n-3/2} B(\frac{n-1}{2}, \frac{n}{2}) = \frac{2^{n-1} [\Gamma(\frac{n}{2})]^2}{\sqrt{\pi} \Gamma(n-1/2)}.$$

This is the answer when the basic ball has radius 1; if it has radius  $\rho$ , then multiply this by  $\rho$ .

For the specific case of the Earth, modeled as a perfect sphere, we get from this  $E(\|X - Y\|) = 5280$  (miles).

What happens asymptotically, i.e., in very high dimensions? That is easy enough to figure out as well; we need nothing more than simple tools. Simply use the standard facts that

$\Gamma(x) = e^{-x} x^{x-1/2} \sqrt{2\pi} [1 + \frac{1}{12x} + \frac{1}{288x^2} + \dots]$  as  $x \rightarrow \infty$  and that for  $|x| < 1$ ,  $\log(1 - x) = -x - x^2/2 - x^3/3 - \dots$ .

Then, our formula

$$E[\|X - Y\|] = \frac{2^{n-1} [\Gamma(\frac{n}{2})]^2}{\sqrt{\pi} \Gamma(n-1/2)}$$

for the case of the unit ball results in  $E[\|X - Y\|] =$

$$\sqrt{2} \left[ 1 - \frac{7}{24n} - \frac{95}{1152n^2} + O(n^{-3}) \right].$$

This means, that in high dimensions, the Euclidean distance between two random points on the surface would be close to as large as it can possibly be, namely  $\sqrt{2}$ .

An interesting question is exactly how much smaller is the Euclidean distance between two points than the geodesic distance between them. This will of course depend on the specific two points. What happens if the two points are chosen at random? Let's use some notation to get things very clear.

Let  $X, Y$  be two independent random picks from the surface of the  $n$ -dimensional unit ball, and let  $D = D_n$  and  $G = G_n$  be the Euclidean and the geodesic distance between them. Then, using spherical trigonometry, a now forgotten subject, you can show that  $E(\frac{D}{G})$  has an integral representation. Let us see what it is; it is given by

$$a_n \int_0^\pi \frac{2 \sin(\theta/2)}{\theta} (\sin \theta)^{n-2} d\theta, \text{ where}$$

$$a_n = \frac{2^{n-2} [\Gamma(\frac{n}{2})]^2}{\pi(n-2)!}.$$

You can evaluate it numerically, or in closed form by using certain special functions, or you can derive an asymptotic expansion for it. The asymptotic expansion takes a lot more work now, but one is

$$E(\frac{D}{G}) = \frac{2\sqrt{2}}{\pi} + \frac{\pi^3 + 8\pi + 32}{2\sqrt{2} \pi^3 n} + O(n^{-2}).$$

Now,  $\frac{2\sqrt{2}}{\pi}$  is about .900316. So, in very high dimensions, the Euclidean distance is just about 10% smaller than the geodesic distance on the average.

How about for the Earth, i.e.,  $n = 3$ ? Then,  $E(\frac{D}{G}) = .88451$ . Not much savings!



# Seminar on Stochastic Processes 2014

Jason Schweinsberg reports:

The Seminar on Stochastic Processes (SSP) is an annual meeting that has been held in North America every Spring since 1981, when the first meeting was organized by Kai Lai Chung, Erhan Çinlar, and Ron Gettoor. The 2014 SSP (<http://www.math.ucsd.edu/~jschwein/ssp2014.html>) was held at the University of California at San Diego (UCSD) from Wednesday, March 26, through Saturday, March 29. The local organizers were Patrick Fitzsimmons, Amber Puha, Jason Schweinsberg, and Ruth Williams. There were 90 participants at the conference.

The program began on Wednesday afternoon with two 90-minute tutorial lectures by Vidas Sidoravicius (IMPA). These lectures were aimed primarily at new researchers and were organized with the help of the IMS Committee on New Researchers. Sidoravicius spoke on “Structure of near critical clusters and continuity of the phase transition for Bernoulli percolation and Ising models in dimensions 2 and 3.” A walk to the ocean cliffs allowed participants to continue the discussion after the lectures.

The rest of the program featured five invited speakers. On Thursday morning, Neil O’Connell (University of Warwick/Trinity College Dublin) spoke about “Geometric RSK, Whittaker functions and random polymers”. On Friday morning, Ramon van Handel (Princeton University) spoke on “Conditional Ergodicity”. Later that morning, Rodrigo Bañuelos (Purdue University) delivered the Kai Lai Chung lecture on “Martingale transforms, the heart of the matter.” The Kai Lai Chung lecture was created in 2011 to honor Kai Lai Chung’s memory. Bañuelos’s talk also honored the contributions of Donald Burkholder, who died in 2013. On Saturday morning, Sebastien Roch (University of Wisconsin) spoke about “Maximum likelihood in phylogenetics: Relating combinatorial and variational distances on trees”, and Sandra Cerrai (University of Maryland) concluded the conference with a talk on “Large deviations and exit

problems for the 2D Navier-Stokes equations driven by space-time white noise.”

One of the aims of the SSP has been to give new researchers an opportunity to introduce themselves to the community by giving short presentations on their work. This year, a new format was used for these presentations. The participants were invited to give five-minute talks during the day on Thursday. The talks served as advertisements for posters which were presented at a combined poster session and reception later that day. The poster session gave conference participants an opportunity to ask questions of the poster presenters and engage in further mathematical discussion. Feedback from participants indicated that the new format was well received. The poster session was followed by a conference banquet on Thursday evening. At the banquet, Chris Burdzy, the moderator of the SSP Scientific Committee, made a few remarks in memory of Marc Yor, who died in January 2014.

On Friday afternoon, there was an open problem session, at which participants were invited to take up to 12 minutes to present an open problem at the blackboard. Also on Friday afternoon was a one-hour panel discussion, organized by the IMS Committee on New Researchers, at which four panelists (Rodrigo Bañuelos, Rene Carmona, Sandra Cerrai, and Steve Evans) gave new researchers advice on various issues that they may face as they start their careers.

The organizers thank the IMS for co-sponsoring the meeting, the IMS Committee on New Researchers for organizing several activities, and the National Science Foundation, Charles Lee Powell Foundation, and the Chung family for providing partial financial support.

Next year’s SSP is hosted by the University of Delaware, April 1–4, 2015. Local organizers are Nayantra Bhatnagar, Mokshay Madiman, Petr Plechac and Douglas Rizzolo. The invited speakers will be Michel Ledoux (Kai Lai Chung Lecturer), Maria Gordina, Haya Kaspri, Lionel Levine and Brian Rider

Participants at the 2014 Seminar on Stochastic Processes. Photo: Chris Burdzy



# IMS Travel Awards announced

Meet this year's 18 winners of the IMS Travel Awards. The awards fund travel to present a paper/poster at an IMS sponsored or co-sponsored meeting, for New Researchers who would not otherwise be able to attend. See <http://www.imstat.org/awards/travel.html>



**Jinyuan Chang**  
University of Melbourne



**Haeran Cho**  
University of Bristol



**Alexander Drewitz**  
Columbia University



**Lilun Du**  
Univ of Wisconsin-Madison



**Bin Guo**  
Peking University, China



**Ming-Hung (Jason) Kao**  
Arizona State University



**Cheng Li**  
Northwestern University



**Gen Li**  
Univ of North Carolina at Chapel Hill



**Rajarshi Mukherjee**  
Harvard University



**Takashi Owada**  
Technion-Israel Institute of Technology



**Takumi Saegusa**  
University of Washington



**Jiangyan Wang**  
Soochow University, China



**Susan Wei**, Univ of North Carolina at Chapel Hill



**Lingzhou Xue**, The Pennsylvania State Univ



**Anru Zhang**, Wharton School, U of Pennsylvania



**Zemin Zheng**, Univ of Southern California



**Wenxin Zhou**  
University of Melbourne



**Yi-Hui Zhou**, North Carolina State University

## Other news

### StatProb to Join Encyclopedia of Mathematics

The StatProb project (<http://statprob.com/>) is aimed at producing a freely accessible web encyclopedia concerning all matters statistical and probabilistic. It started in 2010 and is sponsored by ten scientific societies including IMS, Bernoulli and ISI. Unfortunately, for various reasons, it fell into abeyance and is no longer being developed. After very careful consideration of various options, and in order to maintain and develop the web presence of the StatProb corpus in the long run, it was agreed that the StatProb material will be merged with the web version of the Encyclopedia of Mathematics (EoM), a freely available and updateable wiki-style web encyclopedia overseen by Springer and by the European Mathematical Society (see <http://www.encyclopediaofmath.org/>).

StatProb contributors are now being invited to agree to the transfer of their articles to the EoM collection.

The EoM Editor-in-Chief Ulf Rehmann ([e rehmann@math.uni-bielefeld.de](mailto:rehmann@math.uni-bielefeld.de)) warmly welcomes further contributions.

### Sonia Kovalevsky Lecture

The Association for Women in Mathematics (AWM) and the Society for Industrial and Applied Mathematics (SIAM) have selected Irene M. Gamba to deliver the prestigious Sonia Kovalevsky Lecture (<http://www.siam.org/prizes/sponsored/kovalevsky.php>) at the



2014 SIAM Annual Meeting, July 7–11, 2014, in Chicago, Illinois. Meeting details are at <http://www.siam.org/meetings/an14/>



# Treasurer's Report: Fiscal Year 2013

## Introduction

This report details membership and subscription data for calendar year end 2013. In 2013, the fiscal year end of the IMS was moved from June 30 to December 31; therefore a separate financial and audit report will be published in the Fall after the external audit of the IMS is completed.

In 2013, the total number of IMS members decreased in paid members and in total members. Subscriptions by institutions also decreased this past year. **The financial status of the Institute continues to be stable**, and actions have been taken to ensure its long-term stability. Details of the events of the past year, membership and subscription data, and sales data are given below.

## Publications

The following is a list of all current IMS core, co-sponsored, affiliated and supported journals:

### IMS Core Print/Electronic Publications

*Annals of Applied Probability; Annals of Probability; Annals of Statistics; Annals of Applied Statistics; Statistical Science; Current Index to Statistics; IMS Collections; IMS Monographs; IMS Textbooks; IMS Bulletin*

### Co-sponsored Print/Electronic Publications

*Electronic Communications in Probability; Electronic Journal of Probability; Electronic Journal of Statistics; Journal of Computational and Graphical Statistics; NSF-CBMS Series in Probability and Statistics; Probability Surveys; Statistics Surveys*

### Supported Publications

*Annales de l'Institut Henri Poincaré; Bayesian Analysis; Bernoulli; Bernoulli News; Brazilian Journal of Probability and Statistics; Stochastic Systems*

### Affiliated Publications

*ALEA: Latin American Journal of Probability and Mathematical Statistics; Probability and Mathematical Statistics*

## Membership Data

Total individual paid membership in the Institute as of December 31, 2013 decreased 2.9% from December 31, 2012. Table 1 (below) presents the membership data back to 2006.

TABLE 1: Membership, by Calendar Year

	2006	2007	2008	2009	2010	2011	2012	2013	% change
<b>Regular</b>	2,256	2,266	2,179	2,045	1,970	1,863	1,792	1,737	-3.1%
<b>Life/Retired Life</b>	264	327	402	455	475	475	486	501	3.1%
<b>Reduced Country/Retired/IMS China</b>	428	430	633	606	401	421	407	369	-9.3%
<b>New Graduate</b>	144	129	122	158	149	113	112	110	-1.8%
<b>Student</b>	1,295	1,160	1,328	1,368	1,160	1,116	1,023	1,036	1.3%
<b>Total</b>	4,387	4,312	4,664	4,632	4,155	3,988	3,820	3,753	-1.8%
<b>Total excluding free members (students, and in 2008–9 IMS China)</b>	3,092	3,152	3,156	3,091	2,995	2,872	2,797	2,717	-2.9%

\* 2012 member figures contain some estimates

As can be seen, the membership reached a high of 3,156 in 2008 and has been decreasing since then. This trend is similar to that of other professional societies. Nevertheless, this is an area of concern, and the IMS Executive Committee is looking into this issue.

**Geographic Distribution of Members:** The IMS membership is currently distributed as follows: 62% United States; 18% Europe; 11% Asia; 4% Canada; 3% Australia and New Zealand; >2% South America, Mexico and the Caribbean; >1% Africa

**Selection of Journals by Members:** Print subscriptions by members continued to decrease sharply in 2013, as expected, because members are opting to reduce their use of print while enjoying free electronic access to all journals. Members are charged actual cost for print copies of journals, so there is no net loss or gain to the bottom line from changes in print subscriptions by members. Table 2 (opposite) shows the current selection of journals by members.

The IMS offers joint membership opportunities with the following societies:

- Bernoulli Society (BS);
- International Statistical Institute/Bernoulli Society (ISI/BS);
- International Society for Bayesian Analysis (ISBA);
- Applied Probability Society/INFORMS (APS/INFORMS);
- Sociedad Latino Americana de Probabilidad y Estadística Matemática (SLAPEM).

## Institutional Subscription Data

Table 3 (opposite) presents comparative subscription data for institutions to each of our scientific journals for 2013 and previous years. All journals experienced subscription decreases in 2013. Overall institutional subscriptions decreased by 5.3%. We are seeing increases in our bundled offerings which are discounted on the whole.

Approximately 60% of the non-member subscribers to IMS journals are in USA and Canada, with the remaining subscribers distributed throughout the world.

## Book Sales Data

Tables 4 and 5 (opposite) present sales data for all the IMS book series. In 2010 the IMS published its first volumes in a cooperative arrangement with Cambridge University Press

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TABLE 2: Member\*\* Subscriptions, by Calendar Year

PRINT (paid)	2006	2007	2008	2009	2010	2011	2012	2013	% change
AAP	619	497	428	382	280	197	126	84	-33.3%
AOP	616	534	481	416	298	218	184	99	-46.2%
AOAS	n/a	n/a	1,160	1,089	714	480	379	232	-38.8%
AOS	1,723	1,608	1,323	1,109	763	555	447	265	-40.7%
STS	2,412	2,146	1,880	1,680	1,310	1,035	869	532	-38.8%
Total	5,370	4,785	5,272	4,676	3,365	2,485	2,005	1,212	-39.6%

\*\* Previously this information was reported as all members (including organizational), however data has been reformatted to show individual members only, to reflect the change in classification and to better view the current status of the data.

TABLE 3: Institutional Paid Subscriptions, by Calendar Year

PRINT	2006	2007	2008	2009	2010	2011	2012	2013	% change
AAP	659	700	636	680	684	645	687	632	-5.1%
AOP	911	977	900	948	967	901	908	839	-5.4%
AOAS	n/a	n/a	174	247	320	331	380	342	-4.7%
AOS	1,171	1,227	1,118	1,154	1,158	1,127	1,132	1,008	-9.3%
STS	922	976	865	890	899	861	865	769	-11.1%
Bulletin	201	275	174	176	166	142	128	169	32.0%
CIS	n/a	n/a	295	297	267	273	249	229	-8.0%
AIHP <sup>s</sup>	n/a	[174]	228	271	286	289	326	324	3.8%
Bernoulli <sup>s</sup>	[199]	199	198	264	278	280	321	307	-3.2%
BJPS <sup>s</sup>	n/a	n/a	n/a	64	78	88	117	119	11.2%
Total	3,864	4,354	4,588	4,991	5,101	4,966	5,001	4,738	-5.3%
Total IMS journals	3,663	3,880	3,693	3,919	4,028	3,865	3,888	3,590	-7.7%

<sup>s</sup> denotes IMS-supported journals. Numbers in [brackets] are prior to journal becoming IMS-supported.

to publish two series, *IMS Monographs* and *IMS Textbooks*. Sales of these volumes are going very well. The *CBMS-NSF Regional Conference Series* published one new volume in 2013. The *IMS Collections* series has seen very low sales; the series has been formulated in order for the IMS to have minimal loss on these volumes. The *Lecture Notes—Monograph Series* ceased publication in 2009.

### Financial and Audit Report

The fiscal year ended December 31, 2013.

The external audit of the IMS will be completed in July 2014. The full audit report along with a short analysis will appear in the *IMS Bulletin* in the Fall.

### Conclusion

The IMS Executive Committee and the IMS Council have reviewed all data in this report. A long term financial plan is already in place and the IMS continues to be strong and stable financially. Decreases in institutional subscriptions are being addressed by partnering with Project Euclid to extend cooperative agreements with library consortia and by monitoring our subscription pricing carefully to ensure both long term viability and access.

*Jean Opsomer, Treasurer*

TABLE 4: Total sales from the NSF-CBMS Regional Conference Series, the Lecture Notes—Monograph Series, and IMS Collections [Fiscal Year Data (July 1-June 30)]

	to 2006	2007	2008	2009	2010	2011	2012	2013	TOTAL
Total NSF-CBMS sales (8 volumes)	5,725	129	108	57	108	57	13	40	6,237
Total LNMS sales (58 volumes)	26,959	628	454	235	297	124	40	9	28,746
Total IMS Collections sales (10 volumes)	n/a	n/a	n/a	9	3	5	3	7	27

TABLE 5: Total sales of IMS Monographs and Textbooks [Fiscal Year Data (July 1-June 30)]

Book (year published)	to 2006	2007	2008	2009	2010	2011	2012	2013	TOTAL
IMS Monographs vol 1 (2010)	n/a	n/a	n/a	n/a	660	586	789	556	2,292
IMS Monographs vol 2 (2012)	n/a	n/a	n/a	n/a	n/a	n/a	299	19	318
IMS Monographs vol 3 (2013)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	29	29
IMS Textbooks vol 1 (2010)	n/a	n/a	n/a	n/a	639	491	326	249	1,705
IMS Textbooks vol 2 (2013)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	387	387
Total Monographs & Textbooks sales	n/a	n/a	n/a	n/a	1,299	1,077	1,115	1,240	4,731

# Recent papers

## *Statistical Science: Volume 28, issue 4 (November 2013)*

The central purpose of *Statistical Science* is to convey the richness, breadth and unity of the field by presenting the full range of contemporary statistical thought at a moderate technical level, accessible to the wide community of practitioners, researchers and students of statistics and probability. The Editor is Peter Green.

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

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## *Electronic Journal of Statistics: Volume 7, 2013*

The *Electronic Journal of Statistics*, sponsored by IMS and the Bernoulli Society, publishes research articles and short notes on theoretical, computational and applied statistics. The journal is open access. Articles are refereed and are held to the same standard as articles in other IMS journals. Articles become publicly available shortly after they are accepted.

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

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# Annales de l'Institut Henri Poincaré (B)

Volume 50, issue 2 (May 2014)

The Probability and Statistics section of the *Annales de l'Institut Henri Poincaré* is an international journal which publishes high quality research papers. The journal deals with all aspects of modern probability theory and mathematical statistics, and their applications.

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Ross Leadbetter  
Stamatis Cambanis  
and Vlasas Pipiras

## A Basic Course in Measure and Probability

Theory for Applications

40% discount for members

CAMBRIDGE

### New book discount for IMS members

*A Basic Course in Measure and Probability: Theory for Applications*

by Ross Leadbetter, Stamatis Cambanis and Vlasas Pipiras

Published in March 2014

Hardback ISBN 9781107020405: was \$115.00, now \$69.00

Paperback ISBN 9781107652521: was \$50.00, now \$30.00

Originating from the authors' own graduate course at the University of North Carolina, this material has been thoroughly tried and tested over many years, making the book perfect for a two-term course or for self-study. It provides a concise introduction that covers all of the measure theory and probability most useful for statisticians, including Lebesgue integration, limit theorems in probability, martingales, and some theory of stochastic processes. Readers can test their understanding of the material through the 300 exercises provided. The book is especially useful for graduate students in statistics and related fields of application (biostatistics, econometrics, finance, meteorology, machine learning, and so on) who want to shore up their mathematical foundation. The authors establish common ground for students of varied interests which will serve as a firm 'take-off point' for them as they specialize in areas that exploit mathematical machinery.

Use code IMSSERIES2 at checkout for your discount: [www.cambridge.org/9781107652521](http://www.cambridge.org/9781107652521)

# Terence's Stuff: Creativity in Statistics

Terry Speed thinks that we should be more open about the creative process in data analysis, not hide it away from view.



**Y**ou probably know the old chestnut *He uses statistics as a drunken man uses lamp-post—for support rather than illumination*. But what do others—non-statisticians, non-applied statisticians—know of how we *illuminate*, rather than *support*, or fail to support?

What do we do when we spend days, weeks or months analysing a data set? How do we come up with a range of possible designs for an experiment or observational study? In what way is *creativity* and *imagination* at work in our profession? Not only do I think others have little idea, I think we ourselves are remarkably reticent about it.

Part of this reticence probably stems from a reluctance to admit the subjectivity of much of what we do. There is also a concern about *looking* at data to decide what to do, before carrying out a frequentist procedure whose post-look operating characteristics will in general be different from the pre-look ones. Transforming the data is a simple case in point.

This suggests a paradox: the very things we might want to point out to someone as demonstrating our creativity and imagination—*“We noticed that the data behave better after this adjustment”*—are the same things we might want to suppress, for they could be viewed by someone else as compromising our analysis.

Of course we usually don't cry foul when someone transforms data. But would we be happy to document all the marginal tables we produced, all the histograms, box-plots, scatter plots, cluster diagrams, PCA or home-made plots we looked at, all the stratifications

we considered, all the models we entertained, all the fits and misfits we examined, along with their associated parameter estimates and outliers, as we inched our way towards an analysis we thought appropriate for addressing some question with our data. It might start out simply, summarizing, visualizing and carrying out exploratory analyses, but could go much further. When we notice things—a spike here, a wrong slope there—we usually do something about it, for example, discard, truncate or transform data, or modify a model. We might need to think about possible confounders, selection biases, aggregation, possibly relevant missing data, and much more. As all who have done this know, the list could be extended indefinitely, though in any given instance, we might try just a few things, quickly (and probably unconsciously) eliminating scores of possible alternatives, as we approach our preferred analysis.

In some contexts, such as prediction, where we want an unbiased estimate of the prediction error, these preliminaries may matter a lot, while in others, they may not. Experienced data analysts instinctively know how to avoid over-training, for example, by exploring one part of the available data, and then seeing how their impressions hold up on other parts. They may also do simulations.

If we are the consulting or collaborating statistician in a team, it is highly unlikely that all these *preliminaries* will be documented, and appear in a publication. In my experience we rarely record all of them. Only occasionally do we see this sort of thing discussed in books, Peter Huber's 2011 monograph *Data Analysis* being a notable example. When it comes to writing up, we

typically describe only the end result. All this brings to mind Peter Medawar's 1963 essay *“Is The Scientific Paper A Fraud?”* subtitled *“Yes; It Misrepresents Scientific Thought.”*

Does any of this matter? I have the impression—to be explored more in a later column—that many non-statisticians (dare I say, data scientists) are unaware of this activity of ours, of the importance we attach to it, and of the satisfaction we get from doing it well. But how can we complain if we conceal our tools, techniques and thought processes from others, and then find that when they are re-discovered, they are not seen to be part of Statistics, but of something else, perhaps Data Science, or Big Data? More importantly, how can we pass on our knowledge and experience in this area, if we don't talk about it? What should we be doing?

We often say that we want to go beyond cookbook-like recipes for the stylized analysis of data, but this usually means that we want to convey theoretical understanding, not encourage creative cooking. Let's acknowledge, even emphasize, the role of creativity in data analysis courses, including introductory statistics courses. With the advent of supplements to papers in most journals, including more details of our preliminaries in our write-ups is now straightforward, and many people already do. We should be talking about the creative process, not just when it leads to a novel tool or technique, but for the role it plays in our daily work.

Anyone for a piece of pi? Let's embrace our creativity!



Paul Smith/Flickr

# IMS meetings around the world

## Australian Statistical Conference in Conjunction with the IMS Annual Meeting July 7–10, 2014, Sydney, Australia

**w** <http://www.ims-asc2014.com/>

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

### IMS Keynote Speakers:

**Wald Lecturer:** Thomas G. Kurtz, University of Wisconsin–Madison

**Neyman Lecturer:** Peter Donnelly, University of Oxford

**Schramm Lecturer:** Terry Lyons, University of Oxford

**Medallion Lecturers:** Nina Gantert, Technische Universität München; Martin Hairer, University of Warwick; Timo Seppäläinen, University of Wisconsin–Madison; Matthew Stephens, University of Chicago; Harrison Zhou, Yale University

**ASC Keynote Speakers:** James Brown, University of Technology; Adrian Baddeley, CSIRO/University of Western Australia; Sheila Bird, Cambridge University; Terry Speed, University of California/Walter & Eliza Hall Institute of Medical Research

**Updated Program:** **w** <http://ims-asc2014.com/program/>

Since abstract submission closed late last year the program committee have been eagerly putting together an exciting line up of papers and speakers. The program outlines the key themes that will be addressed in the four-day conference.

**Satellite Events:** **w** <http://ims-asc2014.com/asc-2014-satellite-events/>

A series of pre- and post-conference workshops will support the conference. Early booking is recommended. See <http://www.ims-asc2014.com/asc-2014-satellite-events/> for more information.

**Social Program:** **w** <http://ims-asc2014.com/social-program/>

The social program at the IMS-ASC meeting includes a **Welcome Reception** and poster viewing session on the Monday evening; the **IMS Presidential Address and Awards ceremony**, followed by a drinks reception, on the Tuesday evening; and a **dinner cruise** around Sydney Harbour on the Wednesday evening.

### Register now

Still not registered? What are you waiting for, book in now to secure your place: <http://ims-asc2014.com/registration-page/>



### Registration is open!

You can register now for the meeting with or without lunches. As an IMS member you receive a discount on registration rates: see

**[www.ims-asc2014.com/registration-page/](http://www.ims-asc2014.com/registration-page/)**

## IMS co-sponsored meeting

### Workshop on Finance, Probability and Statistics (FPS)

July 2–5, 2014

University of Technology, Sydney (UTS)

**w** <http://www.qfrc.uts.edu.au/IMS-FPS-2014>

This, the Fourth IMS-FPS workshop, is a satellite workshop to the joint Australian Statistical Conference & IMS Annual Meeting, which will be held in Sydney from 7–10 July. The previous IMS-FPS workshops were held in 2011 at Columbia University, in 2012 at the University of California at Berkeley and in 2013 at the National University of Singapore. The goal of the workshop is to bring together leading academic experts, practitioners and junior researchers, which will highlight important contributions to mathematical and computational finance made through the use of statistics and probability.

The workshop topics include, but are not limited to: Computational and simulation methods in finance and risk management; Credit and liquidity risk; Energy and weather derivatives; Financial time series and econometrics; High frequency trading: data, models and strategies; Volatility models. Please see the website for details.

satellite IMS-ASC meeting



# IMS meetings around the world

## IMS sponsored meeting

UPDATED

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

<http://amstat.org/meetings/jsm/2014/>

JSM Program Chair: Jean Opsomer. IMS Invited Program chair: Nancy Reid. IMS Contributed Program chair: Bertrand Clark. The 2014 Joint Statistical Meetings will be held at the Boston Convention and Exhibition Center. You can book your hotel accommodation through the JSM website from May 1 – July 2: <http://www.amstat.org/meetings/jsm/2014/housing.cfm>. General registration for conference attendees and add-on registration for all registrants is open. Early birds: save \$45 by registering before May 29.

#### Key dates:

May 1, 2014: Registration and housing reservations open

May 29, 2014: Early-bird registration deadline

July 2, 2014: Housing deadline

#### Plenary Sessions at JSM 2014

Stephen Stigler, University of Chicago: **ASA President's Invited Address**

*The Seven Pillars of Statistical Wisdom*. Monday, August 4, 4:00 p.m.

Nathaniel Schenker, 2014 ASA President: **ASA Presidential Address and Founder & Fellows Recognition**

*Why Your Involvement Matters*. Tuesday, August 5, 7:00 p.m.

Sharon Lohr, Westat: **Deming Lecture**

*Red Beads and Profound Knowledge: Deming and Quality of Education*. Tuesday, August 5, 4:00 p.m.

Grace Wahba, University of Wisconsin–Madison: **COPSS Fisher Lecture**

*Positive definite functions, reproducing kernel Hilbert spaces and all that*. Wednesday, August 6, 4:00 p.m.

Gareth Roberts, University of Warwick: **IMS Blackwell Lecture**

*Rao-Blackwellisation for improved Monte carlo for stochastic processes*. Sunday, August 3, 4:00 p.m.

Mathias Drton, University of Washington: **IMS Medallion Lecture**

*What do we know about linear structural equation models?* Monday, August 4, 10:30 a.m.

## IMS co-sponsored meeting

### 9th World Congress on Probability and Statistics

July 11–15, 2016

Toronto, Canada

<http://www.fields.utoronto.ca/programs/scientific/16-17/WC2016/>

This meeting is jointly sponsored by the Bernoulli Society and the IMS. The Scientific Programme Chair is Alison Etheridge. The Local Chair is Tom Salisbury.

## At a glance:

forthcoming  
IMS Annual  
Meeting and  
JSM dates

## 2014

### IMS Annual Meeting:

Sydney, Australia,  
July 7–10, 2014  
[ims-asc2014.com](http://ims-asc2014.com)

JSM: Boston, MA,  
August 2–7, 2014

## 2015

### IMS Annual Meeting

@ JSM: Seattle, WA,  
August 8–13, 2015

## 2016

### IMS Annual Meeting:

Toronto, Canada,  
July 11–15, 2016

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

## 2017

### IMS Annual Meeting

@ JSM: Baltimore,  
MD, July 29 –  
August 3, 2017

## 2018

### IMS Annual Meeting:

TBD

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

## Joint Statistical Meetings dates, 2015–2020

### IMS sponsored meeting

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

Seattle, WA, USA

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

### IMS sponsored meeting

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

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

### IMS sponsored meeting

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

Baltimore, MD, USA

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

### IMS sponsored meeting

#### JSM 2018

July 28–August 2, 2018

Vancouver, Canada

### IMS sponsored meeting

#### IMS Annual Meeting @ JSM 2019:

July 27–August 1, 2019, Denver, CO

### IMS sponsored meeting

#### JSM 2020

August 1–6, 2020

Philadelphia, PA

## IMS co-sponsored meeting

**16th IMS New Researchers Conference****Harvard University, Cambridge, Massachusetts****July 31–August 2, 2014****w** <http://www.stat.harvard.edu/NRC2014/>

The 16th IMS New Researchers Conference is an annual meeting organized under the auspices of the IMS, and jointly sponsored this year by the National Science Foundation (NSF), the Office of Naval Research (ONR), and other federal agencies and industry sponsors. The conference is hosted by the Department of Statistics at Harvard and will be held just prior to the 2014 Joint Statistical Meetings in Boston.

The purpose of the conference is to promote interaction and networking among new researchers in probability and statistics.

Confirmed participants include Edo Airoldi, Stephen Fienberg, Peter Hall, Michael Jordan, Alan Karr, Jun Liu, Xiao-Li Meng, Susan Murphy, Giovanni Parmigiani, Donald Rubin, Steven Scott and Bin Yu.

The application deadline was March 24, 2014.

Contact **e** [symposia@stat.harvard.edu](mailto:symposia@stat.harvard.edu)

## IMS co-sponsored meeting

**XIII CLAPEM: Congreso Latino-americano de Probabilidad y Estadística Matemática****September 22–26, 2014****Cartagena de Indias, Colombia****w** <http://www.clapem.unal.edu.co/>

The Latin American Congress on Probability and Mathematical Statistics (CLAPEM, by its initials in Spanish) will be holding its 13th edition in Cartagena de Indias, Colombia, September 22–26, 2014. CLAPEM is the largest event in Probability and Statistics of the Latin American region and has been held every two/three years in different countries of the region since 1980.

The XIII CLAPEM will include three short courses, six plenary conferences, eighteen thematic sessions, contributed talk sessions and poster sessions. **Short courses** by Bin Yu, Department of Statistics, University of California, Berkeley, USA; Alison Etheridge, Department of Statistics, University of Oxford, UK; and Paul Embrechts, Department of Mathematics, ETH Zurich, Switzerland.

**Plenary speakers:** Gerard Biau, Université Pierre et Marie Curie, France; Sourav Chatterjee, Courant Institute of Mathematical Sciences, USA; Carenne Ludeña, Universidad Central de Venezuela; Thomas Mikosch, University of Copenhagen, Denmark; Roberto Imbuzeiro Oliveira, IMPA, Brazil; and Victor Rivero, CIMAT, Mexico. The Invited thematic session titles can be found at [www.clapem.unal.edu.co](http://www.clapem.unal.edu.co)

The deadlines for abstract submission for the contributed talk and poster sessions, and for applying for financial support, have passed.

## IMS co-sponsored meeting

**2015 European Meeting of Statisticians****July 6–10, 2015****Amsterdam, The Netherlands****w** <http://ems2015.nl/>

The European Meeting of Statisticians (EMS) is the main conference in statistics and probability in Europe. It is organized in a roughly two-yearly schedule and is sponsored by the European Regional Committee of the Bernoulli Society. The program consists of invited and contributed lectures, and posters, addressing a full range of subjects in statistics and its many applications.

The conference will be held at the campus of the VU University Amsterdam. The conference will start on Monday, July 6, 2015 and will end on Friday, July 10.

Program committee: Marc Hallin (Belgium, chair); Claudia Klüppelberg (Germany); Susanne Ditlevsen (Denmark); Dominique Picard (France); Daniel Hlubinka (Czech Republic); Luigi Augugliaro (Italy); Geurt Jongbloed (Netherlands); Niels Hansen (Denmark, ERC Bernoulli Society)

## IMS sponsored meeting

**2015 IMS-China Conference on Statistics and Probability****July 1–4, 2015****Kunming, Yunnan, P. R. China****w** <http://www.2015imschina.com>Contact: Qiwei Yao **e** [q.yao@lse.ac.uk](mailto:q.yao@lse.ac.uk)

The fifth IMS-China International Conference on Statistics and Probability will be held in Kunming, China, from July 1–4, 2015. Its scientific program will cover a wide range of topics in probability, statistics and their related areas. The conference will also provide an excellent forum for scientific exchanges and for forging new research collaborations. The conference website contains updated information and contact details.



Got something to say?  
Post a comment on the  
Bulletin website at  
<http://bulletin.imstat.org>

# More IMS meetings around the world

## IMS co-sponsored meeting

### International Workshop in Applied Probability

June 16–19, 2014

Antalya, Turkey

[www.iwap2014.org](http://www.iwap2014.org)

The detailed program is now available for the International Workshop in Applied Probability (June 16–19, 2014, in Antalya, Turkey).

See <http://www.iwap2014.org/?p=Detailed-Program>

The theme of IWAP 2014 is “Probability: The Measure of Tomorrow”. It aims to bring together researchers to share their views and experiences and foster collaboration among scientists working in Applied Probability. The scientific programme will include plenary talks by outstanding scientists, invited and contributed sessions.

The plenary speakers are Ismihan Bayramoglu (Izmir University of Economics, Turkey); Antonis Economou (University of Athens, Greece); Jingchen Liu (Columbia University, USA); Jorge Navarro (Universidad De Murcia, Spain); Sheldon M. Ross (University of Southern California, USA); Nozer D. Singpurwalla (City University of Hong Kong); Michael S. Waterman (University of Southern California, USA)

## IMS co-sponsored meeting

### Third IMS Asia Pacific Rim Meetings

June 30–July 3, 2014

Taipei, Taiwan

**NEW website** <http://ims-aprm2014.ntu.edu.tw/>

The third IMS Asia Pacific Rim Meetings will take place in Howard International House (<http://intl-house.howard-hotels.com/>), Taipei, Taiwan, during the period Monday, June 30–Thursday, July 3, 2014. This meeting series provides an excellent forum for scientific communications and collaborations for researchers in Asia and the Pacific Rim. It also promotes communications and collaborations between the researchers in this area and those from other parts of the world.

The program covers a wide range of topics in statistics and probability, presenting recent developments and the state of the art in a variety of modern research topics and in applications.

The full program is now available online at <http://ims-aprm2014.ntu.edu.tw/programschedule.php>

For more information, you may contact the program chairs: Byeong U. Park ([bupark@stats.snu.ac.kr](mailto:bupark@stats.snu.ac.kr)) and Feifang Hu ([fh6e@virginia.edu](mailto:fh6e@virginia.edu)).

The conference website has been recently changed to <http://ims-aprm2014.ntu.edu.tw/>

## IMS co-sponsored meeting

### 10th Cornell Probability Summer School

July 20–August 1, 2014

Cornell University, Ithaca, NY

<http://www.math.cornell.edu/~cpss/>

Three main lecturers will each give six 75-minute lectures: Gerard Ben Arous (New York University), *Slow random walks*; Eyal Lubetzky (Microsoft Research, Theory Group), *Time-space information percolation for the stochastic Ising model*; and Jeremy Quastel (University of Toronto), *The Kardar-Parisi-Zhang equation and universality class*. Other speakers will include Amine Asselah (Université Paris XII), Wei-Kuo Chen (University of Chicago), Julia Komjathy (Eindhoven University of Technology), Hubert Lacoïn (Université Paris Dauphine), Eviatar Procaccia (UCLA), Nike Sun (Stanford), and Hao Wu (MIT).

## IMS co-sponsored meeting

### Second Conference of the International Society of Nonparametric Statistics (II ISNPS)

June 12–16, 2014

Cadiz, Spain

[www.isnpstat.org](http://www.isnpstat.org)

IMS Representative on Program Committees: Juan Romo  
Following the successful I ISNPS (International Society of NonParametric Statistics) conference in 2012 in Greece, Ricardo Cao, Wenceslao Gonzalez-Manteiga and Juan Romo are organizing the II ISNPS Conference in Cadiz, southern Spain, from June 12–16, 2014.

The conference hotel is located 60 km (40 miles) from Jerez de la Frontera airport. The province of Cadiz is an exceptional and unique area, with high quality cultural, ecologic and gastronomic values, including villages, landscapes and 138 km of first class beaches with coves, inlets and long stretches of sand. Jerez de la Frontera has an international airport with direct connections to many European cities.

The IMS co-sponsored conference will put together recent advances and trends in several areas of nonparametric statistics in order to facilitate the exchange of research ideas, promote collaboration among researchers from all over the world and contribute to the further development of the field. The program (scheduled on June 12, 13, 15 & 16; June 14 will be a free day) will include plenary talks, special invited talks, invited talks and contributed talks on all areas of nonparametric statistics.

For any questions, please email [isnps2014@adcommcentury.com](mailto:isnps2014@adcommcentury.com) and see the webpage.



## IMS co-sponsored meeting

**37th Conference on Stochastic Processes and their Applications****July 28–August 1, 2014****Buenos Aires, Argentina****w** <http://mate.dm.uba.ar/~probab/spa2014/>*SPA 2014: Call for Contributed Sessions*

The 37th Conference on Stochastic Processes and their Applications will take place at the University of Buenos Aires, Argentina, from July 28 to August 1, 2014. The meeting will consist of Plenary Lectures, Invited Sessions and Contributed Sessions conducted in parallel.

Plenary speakers: Anton Bovier, Ivan Corwin, Laszlo Erdős, Antonio Galves, Christophe Garban, Martin Hairer (Lévy Lecture), Milton Jara, Gady Kozma, Eyal Lubetzky, Sylvie Méléard, David Nualart (IMS Medallion Lecture), Felix Otto, Tomohiro Sasamoto, Scott Sheffield, Fabio Toninelli, and Balint Tóth, and a Doeblin Prize Lecture to be announced.

The Invited Sessions can be found at <http://mate.dm.uba.ar/~probab/spa2014/program.html#invitedsessions>

Organizing Committee: Inés Armendáriz, Pablo A. Ferrari, Pablo Groisman, Matthieu Jonckheere, Nora Muler, Leonardo T. Rolla. Contact **e** [spa.conference.2014@gmail.com](mailto:spa.conference.2014@gmail.com)

## IMS co-sponsored meeting

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

## IMS co-sponsored meeting

**International Symposium in Statistics (ISS) 2015*****Parametric and Semi-parametric Inferences for Spatial-temporal, and Multi-dimensional Familial-longitudinal Data*****July 6–8, 2015****Memorial University, St. John's, Canada****w** <http://www.iss-2015-stjohns.ca/>

The ISS-2015 is planned to discuss the methodological advances and challenges in the analysis of continuous and discrete correlated data both in parametric and semi-parametric setup.

The main topics of interest of this symposium are:

- Multivariate analysis in a wider non-normal elliptical distribution setup;
- Multivariate analysis for longitudinal categorical data;
- Time series volatility models;
- Spatial-temporal data analysis;
- Familial longitudinal data analysis in semi-parametric setup.

It is also of interest to discuss further challenges in analysis when data may contain measurement errors, missing values, and/or outliers, for example.

The scientific program will include keynote, special invited, invited, and contributed paper sessions.

**ENAR, 2015–2017**

## IMS sponsored meeting

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

## IMS sponsored meeting

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

## IMS sponsored meeting

**2017 ENAR/IMS Spring Meeting****March 12–15, 2017****Washington DC****w** <http://www.enar.org/meetings.cfm>

## IMS co-sponsored meeting

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

## IMS sponsored meeting

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

The 2014 WNAR/IMS meeting will be held at the Conference Center of the University of Hawaii at Manoa, in Honolulu, HI. It features a Medallion Lecture by Tilmann Gneiting. The WNAR Presidential Invited Address will be given by Christl Donnelly, Imperial College London: *Statistical Challenges in Understanding Disease Transmission and Control*. A short course on *Introduction to large-scale genetic association studies* will be taught by Thomas Lumley.



# ENAR 2015 Spring Meeting Miami, Florida March 15–18, 2015

Deadline | June 15, 2014

## Call for Invited Sessions

The Program Committee for the 2015 Spring Meeting is soliciting suggestions for invited paper sessions. Please suggest ideas and potential speakers and/or develop a formal proposal. Proposals comprised of multi-disciplinary speakers or interesting statistical applications are particularly encouraged. Invited sessions will be selected by the Program Committee from those suggested.

Submission Deadline | June 15, 2014

To **informally** suggest ideas, topics or names of potential speakers, please e-mail:

Mithat Gönen | Program Chair

[gonenm@mskcc.org](mailto:gonenm@mskcc.org)

or Brisa Sánchez | Associate Chair

[brisa@umich.edu](mailto:brisa@umich.edu)

For a **formal** invited session proposal, please include the following in a PDF file e-mailed to **Mithat** at [gonenm@mskcc.org](mailto:gonenm@mskcc.org). Concise, self-contained proposals with confirmed speakers have a much better chance of being accepted!

**NOTE: All invited sessions are scheduled for a total of 105 minutes.**

1. Session title
2. Brief (1–2 paragraphs) motivation for session
3. Organizer's and Session chair's names, affiliations, and contact information
4. Speaker information in the order they would present their talks
  - a. Name, affiliation, and e-mail/telephone
  - b. Talk title and abstract
  - c. Indication of whether the speaker has agreed to attend ENAR if session is selected
  - d. Indicator of whether speaker has conflicts with specific meeting dates
5. Potential session sponsor, e.g. ENAR, ASA Biometrics Section, etc.



Visit the ENAR website at

<http://www.enar.org/meetings.htm>

for more information about the upcoming ENAR 2015 meeting.

12100 Sunset Hills Road | Suite 130 | Reston, VA 20190

# Other meetings around the world

## 2014 NISS/ASA/IMS Writing Workshop for Junior Researchers

Sunday 3 August & Wednesday 6 August at JSM

Boston, USA

**w** <http://www.amstat.org/meetings/wwjr/registration/>

**Apply by June 1**

The National Institute of Statistical Science (NISS), the American Statistical Association (ASA), and the Institute of Mathematical Statistics (IMS) will hold a writing workshop for junior researchers (subject to availability of funds). The goal of the workshop is to provide instruction in how to write journal articles and grant proposals. Participants will be required to provide a recent sample of their writing, which will be reviewed by a senior mentor. The sample could be a current draft of an article to be submitted for publication, or it could be an early version of a grant proposal. (Submission of the manuscript will be required as part of the registration process. Prior experience suggests that the best results come from submitting an early draft of something that is written solely or primarily by the participant.)

The mentors will be former journal editors and program officers, who will critique (a portion of) the submitted material. Individual feedback will be provided as part of the opening session, and participants will be expected to prepare a revision in response. The workshop will open with a one-day session of general instruction in effective writing techniques and will close with discussion and debriefing at a follow-up lunch.

The full-day session is scheduled for Sunday, August 3, in Boston, Massachusetts at the Joint Statistical Meetings (JSM). At the close of the formal activities, mentors will meet individually with participants to go over the writing samples they submitted. Each participant will then prepare a revision of a critiqued portion of the paper and return this to the mentor by Tuesday evening, August 5. Mentors and participants will meet again in conjunction with a lunch on Wednesday, August 6, to discuss the success of the revisions. The lunch program will also include general feedback to participants, mentors, and organizers.

Attendance will be limited and will depend on the number of mentors available. To apply, go to <http://www.amstat.org/meetings/wwjr/registration/>. Applications are due by **June 1, 2014**, and successful applicants will be notified by June 30. Applications received after June 1 will be considered if space is available. There is no fee for participation. Participants will receive lunch on Sunday, August 3, and Wednesday, August 7. Participants must agree to attend both the full Sunday session and the Wednesday lunch. We have requested funding for partial travel support.

This workshop is designed for researchers with a recent Ph.D. in either statistics or biostatistics. Top priority will go to those who have held the Ph.D. for 0–3 years. The limited available funding will be used to support attendance by researchers at U.S. institutions. Current Ph.D. students who are completing their degree before the end of the summer and who will be at US institutions in the fall will also be considered. If space is available, researchers at institutions outside the US will be admitted to the workshop, but will not be provided with travel support.

## Workshop on Statistical Inference for Lévy Processes

**NEW**

September 22–25, 2014

Leiden, The Netherlands

**w** <http://tinyurl.com/ph86pbw>

Contact Shota Gugushvili

**e** [shota.gugushvili@math.leidenuniv.nl](mailto:shota.gugushvili@math.leidenuniv.nl)

Invited speakers: Denis Belomestny; Loïc Chaumont; José Manuel Corcuera; Valentine Genon-Catalot; Marc Hoffmann; Jean Jacod; Cecilia Mancini; Yuliya Mishura; Antonis Papapantoleon; Philip Protter; Markus Reiß; Viktor Todorov; Mathias Vetter.

There is no registration fee, but the number of participants is limited. For more information, details and registration, see the website.

## Workshop on New Directions in Stein's Method

**NEW**

May 18–29, 2015

Singapore

**w** <http://www2.ims.nus.edu.sg/Programs/015wstein/index.php>

Contact Adrian Roellin

**e** [adrian.roellin@nus.edu.sg](mailto:adrian.roellin@nus.edu.sg)

This is a comprehensive two-week workshop on recent developments of Stein's method and its applications. We plan to bring together not only active researchers directly working in the area, but also those who apply Stein's method in their work in order to stimulate, strengthen and develop existing interactions between theory and practice.

# More meetings around the world

## Heart Rhythm Disorders

December 3–5, 2014

NIMBioS, University of Tennessee, Knoxville

**w** [http://www.nimbios.org/workshops/WS\\_cardiac](http://www.nimbios.org/workshops/WS_cardiac)

The National Institute for Mathematical and Biological Synthesis (NIMBioS) is now accepting applications for its Investigative Workshop, “Heart Rhythm Disorders,” to be held December 3–5, 2014, at NIMBioS. Application deadline: **August 1, 2014**

**Objectives:** The heart is a complex nonlinear system, whose function involves the interaction between mechanical contractions of cardiac muscles and waves of electrical excitation propagating in the heart. Heartbeats are the result of the nonlinear coupling between these electrical and mechanical functions of the heart. Cardiovascular diseases, which are often associated with heart rhythm disorders, are the leading cause of death in the Western world. A complete understanding of heart rhythm disorders requires a complex system-level approach that incorporates the interaction between electrical, chemical and mechanical activities of the heart on a variety of biological scales: ion channels to single cells to multi-cellular tissue to organ. Given the difficulty of monitoring and controlling all these factors in the lab, mathematical modeling provides a useful tool for this purpose. The goal of this workshop is to unite researchers from different disciplines – clinicians, mathematicians, physicists, biomedical engineers, and industrial practitioners – in order to better understand the existing mathematical challenges and to explore new directions in modeling of cardiovascular dynamics. As a result of the workshop, we will identify challenges and frontiers in mathematical modeling, statistics and prediction, dynamics and control, stability analysis, as well as data acquisition and analysis for heart rhythm related diseases. We will also foster new interdisciplinary collaborations.

**Co-Organizers:** Alena Talkachova, Biomedical Engineering, Univ. of Minnesota; John Wesley Cain, Mathematics and Computer Science, Univ. of Richmond; and Xiaopeng Zhao, Mechanical, Aerospace and Biomedical Engineering, Univ. of Tennessee, Knoxville

Participation in the workshop is by application only. Individuals with a strong interest in the topic are encouraged to apply, and successful applicants will be notified within two weeks of the application deadline. If needed, financial support for travel, meals, and lodging is available for workshop attendees.

The National Institute for Mathematical and Biological Synthesis (NIMBioS) (<http://www.nimbios.org>) brings together researchers from around the world to collaborate across disciplinary boundaries to investigate solutions to basic and applied problems in the life sciences.

**NEW**

## 2014 Graybill/ENVR Conference:

Modern Statistical Methods for Ecology

September 7–10, 2014

Colorado State University, Fort Collins, Colorado

**w** <http://www.stat.colostate.edu/graybillconference/>

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

The Department of Statistics at Colorado State University will host the 2014 joint Graybill/ENVR Conference on “Modern Statistical Methods for Ecology” in Fort Collins during September 7–10, 2014. The focus of the conference is on new developments in statistical ecology, broadly defined. The conference is jointly sponsored by CSU, for which this is the 12th Graybill Conference, and the American Statistical Association’s section on Statistics for the Environment (ENVR), which has hosted biennial workshops since 2000. The program consists of a short course, invited plenary talks, contributed poster session and student poster competition. It is the aim of the conference to bring together a wide range of researchers, practitioners, and graduate students whose work is related to the conference theme in a wide sense.

**Topics of interest:** Capture-recapture analysis; Distance sampling; Animal movement models; Occupancy models; Spatial models for ecology; Biodiversity; Ecosystem modeling; Multi-scale models; Population dynamics modeling; Wildlife disease modeling; Species distribution models; Demographic modeling; Multimodel inference; and much more in this diverse field.

The conference will bring together some of the top researchers in this area, and the topics of the presentations will range from general overviews of relevant statistical material to more specialized presentations of current statistical developments. There will be no concurrent sessions, providing attendees with the opportunity to see any talks that interest them. The focused yet relaxed nature of the conference will allow for concentrated discussion and interaction among the participants. Following the conference, there will be opportunities for various outdoor activities in the region, including the beautiful Rocky Mountains.

**Keynote Speakers:** David Borchers, University of St. Andrews; Anne Chao, National Tsing Hua University; Jim Clark, Duke University; Jay Ver Hoef, US National Oceanic and Atmospheric Administration; Jun Zhu, University of Wisconsin

**Student Poster Competition:** In order to encourage students to participate, we are planning a student poster competition, with the winners receiving travel support awards. Enter by **July 18**.

**Short course:** September 7. *Hierarchical Random Effects Models Using Markov Chain Monte Carlo* by Andrew Finley, Michigan State University and Alan Gelfand, Duke University.

**NEW**



**Advances in Probability:****NEW****Integrability, Universality and Beyond****September 28–October 2, 2014****Oxford, UK**

**W** <http://www.claymath.org/events/advances-probability-integrability-universality-and-beyond>

This workshop will bring together experts at the forefront of recent advances in the probabilistic study of complex random systems and aims to probe the interplay between newly developed methods of integrability and universality in relation to these systems. The workshop will focus on the following topics:

- Random interface growth, particle systems, stochastic PDEs, and the Kardar-Parisi-Zhang equation and universality class
- Random matrix theory
- Two-dimensional equilibrium statistical mechanics such as the Ising model, percolation, quantum Liouville gravity, and its relation to the Schramm Loewner evolution
- Logarithmically correlated processes such as Gaussian free field, and branching diffusion processes

Speakers: Gerard Ben Arous (NYU), Itai Benjamini (Weizmann), Nathanael Berestycki (Cambridge), Alexei Borodin (MIT), Amir Dembo (Stanford), Christina Goldschmidt (Oxford), Geoffrey Grimmett (Cambridge), Alice Guionnet (MIT), Grégory Miermont (ENS Lyon), Jason Miller (MIT), Ashkan Nikeghbali (Zurich), Neil O'Connell (Warwick), Yuval Peres (Microsoft), Jeremy Quastel (Toronto), Fabio Toninelli (Lyon), Craig Tracy (UC Davis), Vincent Vargas (Paris), Ofer Zeitouni (Weizmann, NYU)

Registration is free but required. To register, please email Naomi Kraker [e admin@claymath.org](mailto:admin@claymath.org), providing the name of your institution and stating which workshop you wish to attend.

Students please also provide a letter of reference from your supervisor.

A limited number of accommodation rooms is available for PhD students and early career researchers. Please email Naomi Kraker at the address above for more information.

**PIMS Summer School and Workshop on the Economics and Math of Systemic Risk and Financial Networks****NEW****July 21–30, 2014****Vancouver, BC, Canada**

**W** <http://www.pims.math.ca/scientific/focus-periods/systemic-risk-and-financial-networks>

As the financial crisis of 2008 and the Flash Crash of 2010 show, the financial networks underlying the world's economy have failed in the past, and may do so again, with catastrophic consequences. Understanding how financial markets generate and propagate risk, and how regulations can help mitigate that risk, is vital to lowering the chance of future financial meltdowns. This July, top financial mathematicians will gather at the University of British Columbia to focus on these crucial issues.

**Time Dynamic Change Point Models and its Applications****NEW****October 15–16, 2014****Göttingen, Germany**

**W** <http://www.stochastik.math.uni-goettingen.de/forscherguppe/index.php?id=651&language=en>

The statistical modeling and analysis of abrupt changes has received great attention recently due to its importance in many applications, such as membrane biophysics, genetic engineering, financial data analysis and telecommunications, to mention a few. Current challenges range from sophisticated modeling and quantification of statistical uncertainty of estimates to fast large scale algorithms for identification of change points and other characteristics of discontinuous data structures.

Therefore, this workshop aims to bring together researchers from different communities concerned with time dynamic change point analysis, who reflect all aspects required for a successful data analysis.

Talks will cover applications, computational issues, statistical modeling and theory.

A poster session will be included.

This workshop is sponsored by the German Science Foundation CRC 803 "Functionality Controlled by Organization in and Between Membranes" and the German Swiss research unit FOR 916 "Statistical Regularization".

# More meetings around the world

## UAB's 4th Annual NIGMS-funded

### Short Course on Statistical Genetics & Genomics

July 7–11, 2014

Birmingham, Alabama, USA

[w](http://www.soph.uab.edu/ssg/nigmsstatgen/fourth) <http://www.soph.uab.edu/ssg/nigmsstatgen/fourth>

The University of Alabama at Birmingham's Section on Statistical Genetics is pleased to announce the 4th Annual NIGMS-funded Short Course on Statistical Genetics & Genomics in Birmingham, AL on July 7–11, 2014. Focusing on the state-of-art methodology to analyze complex traits, this five-day course will offer an interactive program to enhance researchers' ability to understand and use statistical genetic methods, as well as implement and interpret sophisticated genetic analyses.

A limited number of Travel Fellowships available, see website for details (only participants residing in the US are eligible for Travel Fellowships).

Topics to include: Intro (Ethics; Genetics & Genomics; Biostatistics); GWAS Design/Analysis/Imputation/Interpretation; Rare Variants Analyses; Structural Variation & Human Diseases (CNV Analysis); Gene x Gene and Gene x Environment Interaction; Pharmacogenetics/Pharmacogenomics; Analysis of DNA Methylation Microarray Data; Statistical Epigenomics; Transcriptome Analyses; Statistical Methods for NGS; Beyond GWAS: Pathway Analysis & Meta-Analysis.

Software demos: Intro R & Bioconductor; PLINK, SKAT; PENNCNV; CpGassoc; NGS analysis with Bioconductor.

To ensure the depth and practicality of the training program, we will provide 10 laptops to students or student pairs in the classroom. Each computer will be loaded with the required statistical software. Participants are encouraged to bring their laptop. Many of the faculty have substantial expertise with the use of software for statistical genetics and have even authored some.

Speakers: Guests: Ellen Clatyon, MD/JD - Vanderbilt Univ.; Karen Conneely, PhD - Emory Univ.; Nancy Cox, PhD - Univ. of Chicago; Rui Feng, PhD - Univ. of Pennsylvania; Purvesh Khatri, PhD - Stanford Univ.; Alison Motsinger-Reif, PhD - NC State Univ.; Marylyn Ritchie, PhD - Pennsylvania State Univ.; Nicholas J. Schork, PhD - J. Craig Venter Inst.; Sanjay Shete, PhD - MD Anderson Cancer Center; Hao Wu, PhD - Emory University; Michael Wu, PhD - Fred Hutchinson Cancer Research Center/UNC-Chapel Hill. From UAB: Xiangqin Cui, PhD; Hemant Tiwari, PhD.

For more details & registration, please see the website.

Funded by the National Institute of General Medical Sciences (NIGMS).

**NEW**

## MMDS 2014: Workshop on Algorithms for Modern Massive Data **NEW**

June 17–20, 2014

Berkeley, CA, USA

[w](http://mmds-data.org) <http://mmds-data.org>

Contact Alex Shkolnik [e ads2@stanford.edu](mailto:ads2@stanford.edu)

The 2014 Workshop on Algorithms for Modern Massive Data Sets (MMDS 2014) will address algorithmic, mathematical, and statistical challenges in modern statistical data analysis. The goals of MMDS 2014 are to explore novel techniques for modeling and analyzing massive, high-dimensional, and nonlinearly-structured scientific and internet data sets, and to bring together computer scientists, statisticians, mathematicians, and data analysis practitioners to promote cross-fertilization of ideas.

The Workshops on Algorithms for Modern Massive Data Sets (MMDS) address algorithmic and statistical challenges in modern large-scale data analysis. The program for MMDS 2014 will be structured around three related foci: theoretical foundations; novel implementations; and diverse applications. Applications to be discussed include astrophysics, genetics, finance, telecommunications, earthquake monitoring, defense and international treaty verification, business analytics, internet advertising and analysis, and social network analysis. Implementation topics will include MapReduce, Spark, and related frameworks, and extending these frameworks to do iterative matrix algorithms and large-scale machine learning and graph analytics; systems for reducing communication in parallel and distributed graph computations; systems for distributed randomized numerical linear algebra; IPython and scalable analytics as a service; and scaling novel theoretical methods up to tera-scale problems and beyond. Theoretical topics will include sketching, streaming, and projection algorithms for matrix and graph problems; randomized numerical linear algebra methods; communication-aware matrix and graph algorithms; localized spectral and diffusion methods for large-scale graph computations; and novel developments in locality-sensitive hashing, large-scale optimization, etc.

Applications for poster presentations are still open. Submit an abstract soon.

Registration deadline: **June 1, 2014.**

**The International Chemometrics Research Meeting 2014****NEW****September 14–18, 2014****Nijmegen, The Netherlands****w** [www.icrm2014.org](http://www.icrm2014.org)Contact Paul Eilers **e** [p.eilers@erasmusmc.nl](mailto:p.eilers@erasmusmc.nl)

The ICRM has been taking place every four years since 1989. It is dedicated to in-depth discussion of recent statistical developments which are relevant to analytical chemistry and its applications. The format of the meeting is inspired by the Gordon conferences: two sessions per day (one in the morning and one in the evening), with an invited speaker, a discussant and lots of room for the floor discussion. Participants can bring posters and there is room for a limited number of contributed talks.

**XXXII International Seminar on Stability Problems for****NEW****Stochastic Models****June 16–21, 2014****Norwegian University of Science and Technology, Trondheim, Norway****w** <http://www.ipiran.ru/conference/stabil2014/>

We cordially invite you to take part in the XXXII International Seminar on Stability Problems for Stochastic Models which is to be held June 16–21, at the Norwegian University of Science and Technology (Trondheim, Norway). Further information on the Seminar including abstract submission can be found on the website.

Seminars on Stability Problems for Stochastic Models have a long tradition. They were founded by Vladimir Zolotarev in the 1970's. The seminars were attended by leading probabilists from all over the world. The Seminars traditionally aim at bringing together people from Eastern and Western parts of Europe to share their expertise, new results, exchange the ideas and discuss open problems. In this century Seminars took place in Hungary, Bulgaria, Spain, Latvia, Italy, Israel, Romania, and Poland. The previous XXIX, XXX, and XXXI seminars were held in Russia: in 2011 and 2012 – in Svetlogorsk (Kaliningrad region of Russia) and in 2013 – in Moscow. The next, XXXII Seminar will be held in Trondheim, Norway.

Some photos of Trondheim (University, hotels, city) in November 2013 can be found at: <https://plus.google.com/u/0/photos/117897251655159583579/albums/5951272684810815521>

Looking forward meeting you Trondheim!

Victor Korolev, Nikolai Ushakov, Sergey Shorgin, Irina Shevtsova and Yulia Nefedova

**Summer Institute in Statistics for Clinical Research (SISCR 2014)****NEW****June 23–27, 2014****Seattle, Washington, USA****w** <http://www.biostat.washington.edu/suminst/siib/general>

The University of Washington Department of Biostatistics will be hosting the Summer Institute in Statistics for Clinical Research (SISCR 2014), June 23–27, 2014, in Seattle, Washington. SISCR consists of a series of half-day, one-day and one-and-a-half day workshops conducted by experts in the field and designed to introduce participants to modern issues in the design and conduct of clinical trials and the statistical analysis of clinical trial data. Topics covered by SISCR 2014 include enrichment, design and missing data in randomized clinical trials, personalized medicine, and comparative effectiveness, among others.

Prerequisites are minimal, and the modular nature of the Institute enables participants to design a program best suited to their backgrounds and interests. Individuals attending the Institute will receive certificates of course completion in recognition of their participation.

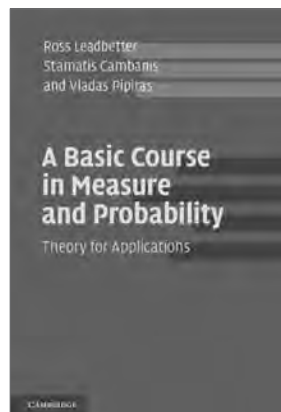
During the 2014 summer we will also be hosting the 19th Summer Institute in Statistical Genetics (SISG), July 7–25, 2014 and the 6th Summer Institute in Statistics and Modeling of Infectious Diseases (SISMID), July 7–23, 2014 (see below).

Online registration for SISCR 2014 is now open: <http://www.biostat.washington.edu/suminst/siib/reg>. You can find information about the Institute's Schedule, Modules, Instructors and other logistics on its website. You can also follow UW Biostatistics on Facebook, Twitter and Google+!

You can email questions to [siscr@uw.edu](mailto:siscr@uw.edu).

We hope to see you in Seattle this summer!

**19th Summer Institute in Statistical Genetics (SISG)****NEW****July 7–25, 2014****Seattle, Washington, USA****w** <http://www.biostat.washington.edu/suminst/sisg/general>**Sixth Summer Institute in Statistics and Modeling of Infectious Diseases (SISMID)****NEW****July 7–23, 2014****Seattle, Washington, USA****w** <http://depts.washington.edu/sismid/>



## ***A Basic Course in Measure and Probability: Theory for Applications***

Ross Leadbetter, Stamatis Cambanis,  
and Vlasos Pipiras

### **Special price for IMS members**

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discount**: use the  
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**Hardback US\$69**  
(was \$115)  
**Paperback \$30**  
(was \$50)

Originating from the authors' own graduate course at the University of North Carolina, this material has been thoroughly tried and tested over many years, making the book perfect for a two-term course or for self-study. It provides a concise introduction that covers all of the measure theory and probability most useful for statisticians, including Lebesgue integration, limit theorems in probability, martingales, and some theory of stochastic processes. Readers can test their understanding of the material through the 300 exercises provided.

The book is especially useful for graduate students in statistics and related fields of application (biostatistics, econometrics, finance, meteorology, machine learning, and so on) who want to shore up their mathematical foundation. The authors establish common ground for students of varied interests which will serve as a firm 'take-off point' for them as they specialize in areas that exploit mathematical machinery.

**[www.cambridge.org/9781107652521](http://www.cambridge.org/9781107652521)**



# Employment Opportunities around the world

## Hong Kong



### THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY (HKUST)

#### Faculty Position in Engineering Statistics and Analytics

The Department of Industrial Engineering and Logistics Management at HKUST invites applications for tenure-track junior faculty position, with emphasis on Engineering Statistics and Data Analytics. We are seeking candidates with strong methodology background in Statistics and an interest in interdisciplinary research. Applicants should have a PhD degree in a related discipline, and demonstrate potential for excellence in both teaching and research.

HKUST is ranked first in Asia by QS World University Rankings three years in a row and its Engineering School has also been ranked among the world's top 25 since 2004. The Department has attained international recognition and we have a strong group of researchers in two main areas, Design and Manufacturing (including Design, Quality and Ergonomics), and Logistics Management (including Operations Research, Operations Management and Financial Engineering). Located in the gateway to China and the most dynamic logistics hub of Asia, the Department is expected to experience rapid growth in the near future.

Salary is competitive and will be commensurate with qualifications and experience. Fringe benefits include annual leave, medical/dental benefits. Housing benefits will be provided where applicable.

Applications with a full CV, statement of research and teaching, transcript, and names of three referees, should be directed to the Faculty Search Committee by email to [ielm@ust.hk](mailto:ielm@ust.hk). More information about the Department can be found at <http://www.ielm.ust.hk>.

## Kazakhstan: Astana

### Nazarbayev University

Assistant, Associate and Full Professor

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17839815](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17839815)

## United Kingdom: Bristol

### The University of Bristol

Professor of Statistical Science

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17587874](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17587874)

## United Kingdom: Coventry

### University of Warwick

Assistant Professor (Warwick Zeeman Lectureship)

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17541545](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17541545)

## United States: Riverside, CA

### University of California, Riverside

Associate or Full Professor in Statistics and Biomedical Sciences

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17576480](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17576480)

## United States: Riverside, CA

### University of California, Riverside

Associate or Full Professor in Statistics and Biomedical Sciences

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17575716](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17575716)

## United States: Champaign, IL

### University of Illinois at Urbana-Champaign, Department of Statistics

Visiting Assistant Professor

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17338193](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17338193)

## United States: Baltimore, MD

### Johns Hopkins University

Bloomberg Distinguished Professor - Mathematics & Applied Mathematics

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=16101447](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=16101447)

## United States: St. Louis, MO

### Monsanto

Big Data Science - Emerging Leaders in Science Program

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17968391](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17968391)

# Employment Opportunities around the world

## Switzerland: Zürich



Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

### Professor of Insurance Mathematics

The Department of Mathematics ([www.math.ethz.ch](http://www.math.ethz.ch)) at ETH Zurich invites applications for a full professor position in Insurance Mathematics.

We are seeking candidates with an internationally recognized research record and with proven ability to direct research of highest quality in the field of insurance mathematics including mathematical finance or mathematical economics. We expect the successful candidate to integrate scientifically into the Department as well as to take a leading role in communication between academia, insurance and financial industry.

The successful candidate is expected to lead the education program for actuarial mathematics at ETH Zurich and will be expected to teach undergraduate level courses (mainly German) and graduate level courses (English).

**Please apply online at [www.facultyaffairs.ethz.ch](http://www.facultyaffairs.ethz.ch)**

Applications should include a curriculum vitae, a list of publications, and a statement of future research and teaching interests. The letter of application should be addressed **to the President of ETH Zurich, Prof. Dr. Ralph Eichler. The closing date for applications is 15 September 2014.** ETH Zurich is an equal opportunity and family friendly employer and is further responsive to the needs of dual career couples. We specifically encourage women to apply.

## United States: Buffalo, NY

### RESEARCH ASSISTANT PROFESSOR

The Department of Biostatistics at the University at Buffalo is seeking a part-time (FTE 0.6) Research Assistant Professor to provide statistical consulting support and teach. The candidate is expected to have experience in clinical trials design and analysis, and a working knowledge of statistical methods utilized in epidemiological studies. Experience with microarray data a plus. Possibilities for teaching also exist. Applicants must have good verbal and written communication skills in order to be considered. Potential exists for a wide variety of areas of collaboration, including chronic disease, epidemiology, environmental health, pharmaceuticals, bioinformatics, women's health, cancer clinical trials, oral health, genetics and many other areas of Public Health and medicine. Knowledge of clinical studies utilized in orthopaedics a plus.

For more departmental information, see: <http://sphhp.buffalo.edu/biostat/index.php>

Applicants should apply online at: [www.hr.buffalo.edu](http://www.hr.buffalo.edu)

*The University at Buffalo is an Equal Opportunity Employer/Recruiter.*



**UB** **University at Buffalo**  
The State University of New York

## United States: South Sioux City, NE

### Great West Casualty Company

Predictive Modeler - Data Analyst

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17753626](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17753626)

## United States: Reno, NV

### University of Nevada, Reno

#### Department of Mathematics and Statistics

Assistant Professor/Associate Professor,  
Statistics

[http://jobs.imstat.org/c/job.cfm?site\\_id=1847&jb=17479996](http://jobs.imstat.org/c/job.cfm?site_id=1847&jb=17479996)

# International Calendar of Statistical Events

IMS meetings are highlighted in maroon with the  logo, and new or updated entries have the  or  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 2014

**June 1–4:** Galveston, Texas, USA 50th Anniversary SRC **w** <http://srcos2014.rice.edu/>

**June 2–6:** Institute of Computational and Experimental Research in Mathematics, Brown University, Providence, RI. **Computational Nonlinear Algebra** **w** <http://icerm.brown.edu/tw-14-3-cna>

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

**June 2–27:** University of British Columbia, Vancouver, Canada. PIMS Summer School in Probability **w** <http://www.math.ubc.ca/Links/ssprob14/>

**June 3–5:** NIMBioS, Knoxville, TN. **Leptospirosis Modeling** **w** [http://www.nimbios.org/workshops/WS\\_leptospirosis](http://www.nimbios.org/workshops/WS_leptospirosis)


**June 7–10:** Lisbon, Portugal. 7th Chaotic Modeling and Simulation International Conference (CHAOS2014) **w** <http://www.cmsim.org>

**June 8–12:** Ljubljana, Slovenia. 23rd International Workshop on Matrices and Statistics (IWMS) **w** [www.law05.si/iwms](http://www.law05.si/iwms)

**June 11–13:** Växjö, Sweden. Fifth Linnaeus University Workshop in Stochastic Analysis and Applications **w** <http://lnu.se/subjects/mathematics/conferences/Isaa---stochastic-analysis-and-applications/Isaa2014?l=en>

**June 11–13:** Pau, France. ALT'2014 (reliability testing and analysis) **w** <http://alt2014.sciencesconf.org/>


**June 11–14:** Lisbon, Portugal. 3rd Stochastic Modeling Techniques and Data Analysis Conference **w** <http://www.smta.net/>

 **June 12–16:** Cadiz, Spain. **Second Conference of the International Society of Nonparametric Statistics (II ISNPS)** **w** [www.isnpstat.org](http://www.isnpstat.org)

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

**June 15–18:** Portland, OR, USA. 2014 ICSA and KISS Joint Applied Statistics Symposium **w** <http://www.statkiss.org/icsakiss2014>

 **June 16–19:** Antalya, Turkey. **International Workshop in Applied Probability** **w** [www.iwap2014.org](http://www.iwap2014.org)

 **June 16–21:** Norwegian University of Science and Technology, Trondheim, Norway. XXXII International Seminar on Stability Problems for Stochastic Models **w** <http://www.ipiran.ru/conference/stabil2014/>

**June 16–26:** Búzios, Brazil. Pan-American Advanced Study Institute on Spatial Statistics **w** [http://www.stat.washington.edu/peter/PASI/PASI\\_2014.html](http://www.stat.washington.edu/peter/PASI/PASI_2014.html)

 **June 17–20:** Berkeley, CA, USA. MMDS 2014: Workshop on Algorithms for Modern Massive Data Sets **w** <http://mmds-data.org>


**June 17–20:** Bogotá, Colombia. First International Congress on Actuarial Science and Quantitative Finance **w** <http://www.matematicas.unal.edu.co/icasqf/>

**June 18–20:** Knoxville, Tennessee, USA. Algebraic and Discrete Biological Models for Undergraduate Courses **w** [http://nimbios.org/tutorials/TT\\_mathbio](http://nimbios.org/tutorials/TT_mathbio)

**June 20–21:** San Diego, CA, USA. Combinatorial Stochastic Processes: in celebration of Jim Pitman's 65th birthday **w** [http://www.stat.berkeley.edu/~aldous/Pitman\\_Conference/](http://www.stat.berkeley.edu/~aldous/Pitman_Conference/)

**June 23:** University of Bath, UK. Geometry and Statistics **w** <http://people.bath.ac.uk/kai21/conference.html>

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

 **June 23–27:** Seattle, Washington, USA. Summer Institute in Statistics for Clinical Research (SISCR 2014) **w** <http://www.biostat.washington.edu/suminst/siib/general>

**June 24–28:** Flint, Michigan, USA. Flint: One City – 100 Years Under Variability **w** <http://bulldogs.kettering.edu/fisc/>

**June 27–28:** Beijing, China. International Symposium on Financial Engineering and Risk Management 2014 (FERM 2014) **w** <http://www.stat.wisc.edu/~zjz/FERM2014/index.html>

**June 28–July 2:** Winthrop University, SC, USA. NSF–CBMS Mathematical Phylogeny Conference **w** [www.birdnest.org/phylogeny/](http://www.birdnest.org/phylogeny/)

# International Calendar *continued*

## June 2014 *continued*

June 29–July 2: Missillac, France. **International Colloquium on Stein's Method, Concentration Inequalities, and Malliavin Calculus** **w** <http://dornsife.usc.edu/conferences/steincolloquium/>

June 29–July 2: Rotterdam, The Netherlands. **34th International Symposium on Forecasting** **w** <http://forecasters.org/isf/>

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

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

## July 2014

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

 July 2–5: University of Technology, Sydney. **Workshop on Finance, Probability and Statistics** **w** <http://www.qfrc.uts.edu.au/IMS-FPS-2014>

July 4–5: Taipei, Taiwan. **Conference on Experimental Designs and Analysis (CEDA) 2014** **w** <http://www3.stat.sinica.edu.tw/ceda2014/>

July 6–11: Florence, Italy. **XXVII International Biometric Conference (IBC) 2014** **w** <http://www.ibs-italy.info/ibc-2014.html>

July 7–9: Huquan Hotel, Mile, Yunnan, China. **Building Statistical Methodology and Theory 2014: In honor of Jeff Wu's 65th birthday** **w** [http://www.stat.purdue.edu/~sunz/Jeff\\_2014/index.html](http://www.stat.purdue.edu/~sunz/Jeff_2014/index.html)

July 7–9: Coventry, UK. **Computational Methods for Jump Processes** **w** <http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/jumps/>

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

**NEW** July 7–11: Birmingham, Alabama, USA. **UAB's 4th Annual Short Course on Statistical Genetics & Genomics** **w** <http://www.soph.uab.edu/ssg/nigmsstatgen/fourth>

July 7–11: Bellaterra, Spain. **2nd Barcelona Summer School on Stochastic Analysis** **w** <http://www.crm.cat/en/Activities/Pages/ActivityFoldersAndPages/Curs%202013-2014/2ndStochasticAnalysis/default.aspx>

**NEW** July 7–23: Seattle, Washington, USA. **Sixth Summer Institute in Statistics and Modeling of Infectious Diseases (SISIMID)** **w** <http://depts.washington.edu/sisimid/>

**NEW** July 7–25: Seattle, Washington, USA. **19th Summer Institute in Statistical Genetics (SIGS)** **w** <http://www.biostat.washington.edu/suminst/sigs/general>

July 11–13: Riverside, CA. **2014 International Indian Statistical Association Conference** **w** <http://2014iisa.intindstat.org>

July 14–18: Cancun, Mexico. **12th World Meeting of ISBA (ISBA2014)** **w** <http://www.isba2014.eventos.cimat.mx/>

July 18: Oxford, UK. **A day of lectures for the 90th birthday of David R. Cox** **w** <http://www.math.chalmers.se/~wermuth/DRC14.html>

**NEW** July 21–30: Vancouver, BC, Canada. **PIMS Summer School and Workshop on the Economics and Math of Systemic Risk and Financial Networks** **w** <http://www.pims.math.ca/scientific/focus-periods/systemic-risk-and-financial-networks>

 July 20–August 1: Cornell University, Ithaca, NY. **10th Cornell Probability Summer School** **w** <http://www.math.cornell.edu/~cpss/>

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

*Register now for the Australian Statistical Conference and 2014 IMS annual meeting*

**July 7–10, 2014**  
**Sydney**

**[www.asc-ims2014.com](http://www.asc-ims2014.com)**



July 31 – August 2: Harvard, Cambridge, MA. **16th New Researchers Conference** [w](http://www.stat.harvard.edu/NRC2014/) <http://www.stat.harvard.edu/NRC2014/>

## August 2014

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

August 3 & 6: JSM, Boston, USA. **2014 NISS/ASA/IMS Writing Workshop for Junior Researchers** [w](http://www.amstat.org/meetings/wwjr/registration/) <http://www.amstat.org/meetings/wwjr/registration/>

August 4–9: Knoxville, Tennessee. **NIMBioS Tutorial: Evolutionary Quantitative Genetics** [w](http://www.nimbios.org/tutorials/TT_eqq) [http://www.nimbios.org/tutorials/TT\\_eqq](http://www.nimbios.org/tutorials/TT_eqq)

August 6–11: Seoul, Korea. **7th International Conference on Stochastic Analysis and its Applications 2014** (Satellite to ICM2014) [w](http://www.icm2014.org/en/program/satellite/satellites) <http://www.icm2014.org/en/program/satellite/satellites>

August 12 & 14: Seoul, Korea. **International Congress of Women Mathematicians 2014** [w](http://www.kwms.or.kr/icwm2014) <http://www.kwms.or.kr/icwm2014>


August 13–21: Seoul, Korea. **International Congress of Mathematicians: ICM2014** [w](http://www.icm2014.org) <http://www.icm2014.org>

August 24–28: Linköping, Sweden. **LINSTAT2014** [w](http://www.mai.liu.se/LinStat2014/) <http://www.mai.liu.se/LinStat2014/>

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


August 25–29: Kansai University, Osaka, Japan. **Stochastic Processes, Analysis and Mathematical Physics** [w](http://stoc-proc.com/sympo/2014/SPAMP2014.htm) <http://stoc-proc.com/sympo/2014/SPAMP2014.htm>


## September 2014


 September 7–10: Colorado State University, Fort Collins, Colorado, USA. **2014 Graybill/ENVR Conference: Modern Statistical Methods for Ecology** [w](http://www.stat.colostate.edu/graybillconference/) <http://www.stat.colostate.edu/graybillconference/>


September 10–11: Besançon, France. **Workshop on empirical processes and applications to statistics** [w](https://trimestres-lmb.univ-fcomte.fr/Workshop-on-empirical-processes.html) <https://trimestres-lmb.univ-fcomte.fr/Workshop-on-empirical-processes.html>

September 11–13: Shymkent, Kazakhstan. **ICAAM 2014 Second International Conference on Analysis and Applied Mathematics** [w](http://www.icaam-online.org/index/) <http://www.icaam-online.org/index/>


 September 14–18: Nijmegen, The Netherlands. **The International Chemometrics Research Meeting 2014** [w](http://www.icrm2014.org) [www.icrm2014.org](http://www.icrm2014.org)

 September 22–26: Cartagena de Indias, Colombia **XIII CLAPEM: Congreso Latino-americano de Probabilidad y Estadística Matemática** [w](http://www.clapem.unal.edu.co/) <http://www.clapem.unal.edu.co/>


 September 22–25: Leiden, The Netherlands. **Workshop on Statistical Inference for Lévy Processes** [w](http://tinyurl.com/ph86pbw) <http://tinyurl.com/ph86pbw>

 September 28–October 2: Oxford, UK. **Advances in Probability: Integrability, Universality and Beyond** [w](http://www.claymath.org/events/advances-probability-integrability-universality-and-beyond) <http://www.claymath.org/events/advances-probability-integrability-universality-and-beyond>

## October 2014


 October 15–16: Göttingen, Germany. **Time Dynamic Change Point Models and its Applications** [w](http://www.stochastik.math.uni-goettingen.de/forscherguppe/index.php?id=651&language=en) <http://www.stochastik.math.uni-goettingen.de/forscherguppe/index.php?id=651&language=en>

## December 2014

 December 3–5: NIMBioS, University of Tennessee, Knoxville, USA. **Heart Rhythm Disorders** [w](http://www.nimbios.org/workshops/WS_cardiac) [http://www.nimbios.org/workshops/WS\\_cardiac](http://www.nimbios.org/workshops/WS_cardiac)

December 18–21: Bogor, Indonesia. **13th Islamic Countries Conference on Statistical Sciences (ICCS-13)** [w](http://www.iccs13.isoss.net) <http://www.iccs13.isoss.net>

## March 2015

 March 15–18: Miami, Florida. **2015 ENAR/IMS Spring Meeting.** [w](http://www.enar.org/meetings.cfm) <http://www.enar.org/meetings.cfm>

# International Calendar *continued*


## May 2015

 **NEW** May 18–29: Singapore. Workshop on New Directions in Stein's Method **w** <http://www2.ims.nus.edu.sg/Programs/015wstein/>

## June 2015

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

## July 2015

 July 1–4: Kunming, Yunnan, P. R. China. 2015 IMS-China International Conference on Statistics and Probability **w** <http://www.2015imschina.com>

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

 July 6–8: Memorial University, St John's, Canada. International Symposium in Statistics (ISS 2015) *Parametric and Semi-parametric Inferences for Spatial-temporal, and Multi-dimensional Familial-longitudinal Data.* **w** <http://www.iss-2015-stjohns.ca>

 July 6–10: Amsterdam, The Netherlands. 2015 European Meeting of Statisticians **w** <http://ems2015.nl/>

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

July 26–31: Rio de Janeiro, Brazil. 2015 ISI World Statistics Congress **w** <http://www.isi2015.ibge.gov.br/>

## August 2015

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

## September 2015

September 21–25: Vienna, Austria. 8th International Workshop on Simulation **w** <http://iws.boku.ac.at/index.php>

## March 2016

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

## June 2016


June 20–23: Geneva, Switzerland. ICES-V, the 5th International Conference on Establishment Statistics **w** TBC

## July 2016

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

 July 11–15: Toronto, ON, Canada. IMS Annual Meeting at 9th World Congress in Probability and Statistics **w** TBC

## July 2017

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

## July 2018

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

## July 2019

 July 27–August 1: Denver, CO, USA. IMS Annual Meeting at JSM 2019 **w** <http://amstat.org/meetings/jsm/>

## August 2020

 August 1–6: Philadelphia, PA, USA. JSM 2020 **w** TBC

Are we missing something? If you know of any statistics or probability meetings which aren't listed here, please let us know.

You can email the details to Elyse Gustafson at [erg@imstat.org](mailto:erg@imstat.org), or you can submit the details yourself at <http://www.imstat.org/submit-meeting.html>

We'll list them here in the Bulletin, and on the IMS website too, at [www.imstat.org/meetings](http://www.imstat.org/meetings)

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3: April/May	<b>March 15</b>	April 1	April 15
4: June/July	<b>May 1</b>	May 15	June 1
5: August	<b>June 15*</b>	July 15	August 1
6: September	<b>August 15</b>	September 1	September 15
7: Oct/Nov	<b>September 15</b>	October 1	October 15
8: December	<b>November 1</b>	November 15	December 1

\* Note that the August 2014 issue has an early deadline of June 15

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