



World Statistics Congress

HONG KONG 2013

Daily News

59th ISI World Statistics Congress

26 Aug 2013 • Monday

Unlocking the excitements of the 59th ISI WSC



From left: The Deputy Secretary for Financial Services and the Treasury (Financial Services), Mr Eddie Cheung; the Deputy Commissioner for Census and Statistics, Mr Leslie Tang; the Executive Director of Hong Kong Tourism Board, Mr Anthony Lau; the Permanent Secretary for Financial Services and the Treasury (Financial Services), Ms Au King-chi; the Secretary for Financial Services and the Treasury, Professor K C Chan; the Commissioner of National Bureau of Statistics of China, Mr Ma Jiantang; the Chairperson of LOC, Mrs Lily Ou-Yang; the President of the ISI, Professor Jae Chang Lee, and his wife; and Mrs Nair and the President-elect of ISI, Professor Vijay Nair.

The Opening Ceremony and Welcome Reception of the 59th ISI WSC were successfully held yesterday. Delegates from different countries and various statistical disciplines joined us in celebrating the beginning of the 59th ISI WSC, while mingling with new and familiar faces and having a first glimpse of Asia's world city.

The Ceremony was honoured by the presence of Mrs Lily Ou-Yang, Chairperson of the Local Organising Committee (LOC) of the 59th ISI WSC; and Professor Jae Chang Lee, President of ISI, who kicked off the Ceremony with their welcome remarks. It was also a pleasure to have Professor K C Chan, Secretary for Financial Services and the Treasury of the Hong Kong Special Administrative Region; and Mr Ma Jiantang, Commissioner of the National Bureau of Statistics of China, to give their congratulatory messages to the 59th ISI WSC.

During the ceremony, **Mrs Lily Ou-Yang** welcomed all delegates to this momentous global event. She said, "With the line-up of distinguished speakers and a rich scientific programme covering a diverse range of topics, I believe that the discussions during this six-day Congress will be all the more innovative and inspiring." She also introduced the variety of social events that participants can join to network with each other and to experience the glamour and rich vibrancy of the city. She wished all delegates a pleasant stay in Hong Kong.

Professor Jae Chang Lee expressed his delight by the fact that the Congress was held in Asia and that the continent is strongly represented in ISI membership and activities. He thanked the local organisers for their excellent work in realising an attractive and high-quality Congress. He stressed the need for statisticians "to reach far beyond our own profession, to promote better and more profitable use of statistics and its methodology in peoples' everyday lives". He referred to the new catch phrase of the ISI which reflects this aim: **ISI: Statistical Science for a Better World.**



<http://www.isi2013.hk>

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Unlocking the excitements of the 59th ISI WSC (cont'd)

Professor K C Chan expressed gratitude to the ISI for giving Hong Kong the privilege to play host to the prestigious WSC for the first time and Mr Ma Jiantang for honouring the event. Professor Chan said, "The Congress has chosen 'Youth' as the theme with a view to encouraging the participation of younger statisticians and to address, from various statistical perspectives, topics surrounding this important subject. The theme is timely indeed."

Mr Ma Jiantang noted that as we had entered an era of information which changed rapidly, statistics was showing its unprecedented role and social value. Official statistics had become an important foundation for all countries to understand the operational laws of economic and social issues, to promote sustainable development and to enhance exchanges and cooperation.

As the door to the spectaculars of the Congress, the Opening Ceremony offered an array of impressive performances highlighting Hong Kong's multi-cultural heritage. The lion dance and dragon dance, drum playing and Chinese music as well as the kung fu flags performance had simply taken away the breath of the audience!

Following the grand Opening Ceremony was the Welcome Reception. Participants enjoyed a delightful ambience at the Reception, reuniting with old friends and making new ones from around the world. This marked the commencement of the Congress and gave a nice warm-up to all delegates for the intensive 5 days of discussions ahead.



International Year of Statistics

This year we celebrate the International Year of Statistics (Statistics2013). More than 2 000 organisations from over 220 countries have joined the Statistics2013 initiative, which has generated a lot of positive energy all over the world. Among the participating organisations are universities, statistical societies, national statistical offices, international organisations, schools and businesses.



One of the reasons of celebrating the International Year of Statistics is this year's 300th anniversary of the publication of Jacob Bernoulli's well-known *Ars Conjectandi*. At this WSC in Hong Kong there is a special session organised in honour of *Ars Conjectandi*: IPS008, scheduled for today at 13:00-15:15. Another reason is the 250th anniversary of Bayes' Theorem, which will be the focus of the IPS036 on 27 August, 13:00-15:15.

However, Statistics2013 does not only celebrate the history, but also modern developments. Check the official website of Statistics2013, www.statistics2013.org, for weekly updates on celebrations, conferences, workshops, competitions, blogs, statistics of the day and much more.

Wish to learn more about Statistics2013? Then we invite you to come to the booths of ISI, ASA and RSS in the exhibition at Hall 3G of HKCEC. Also, we invite you to attend the presentation of ASA Executive Director Ron Wasserstein, titled "International Year of Statistics and Karl Pearson Lecture" (IPS114), on Tuesday 27 August, 15:30-17:45.

Please join us in keeping the spirit of the events this year and continuing the effort in promoting the statistical science throughout the world!

Ada van Krimpen
ISI Director

Daily announcements

Today's events	Time & venue
Open meeting on "Intrusion of the judiciary in the course of the statistical production of official statistics"	11:15 - 13:00 Theatre 2
ISI/RSS Author Workshop	15:30 - 17:45 Room S225
Reception for ISI Members	17:30 - 19:00 Immigration Officers Mess (20/F Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong)
Young Statisticians Reception	17:45 - 19:00 Hall 3G
Event scheduled for 27 August 2013 early morning	
International Society for Business and Industrial Statistics (ISBIS) General Assembly	07:30 - 09:00 Theatre 2

ISI/RSS Author Workshop: Getting your paper published

A workshop sponsored by Wiley for all future journal authors interested in learning how to publish their next paper will be held today in Room S225 of HKCEC, during 15:30-17:45. This workshop is especially valuable for young statisticians at the beginning of their careers, as well as those who are yet to have an article to publish. Editors of established statistical journals will give an overview of best practices in terms of submitting and reviewing papers. Prior registration, via the WSC website: www.isi-web.org/forms/706-wscauthor, is required.

Open meeting on “Intrusion of the judiciary in the course of the statistical production of official statistics”



An open meeting on the topic “Intrusion of the judiciary in the course of the statistical production of official statistics”, moderated by Jean-Louis Bodin, former President of ISI (1999-2001), will take place today from 11:15 to 13:00 in Theatre 2. The meeting will provide participants with background and latest update on two cases of statisticians facing government prosecution for providing statistics of enhanced accuracy and professional standards. Its objective is to understand how these two events, and possibly others, are revealing the potential impact of the intrusion of the judiciary in statistical production. This provokes thoughts on whether the compliance with agreed ethical rules and codes of practice alone can ensure the integrity of statistics and the independent role of statisticians. Pre-registration is not required.

Scientific Programme

The Scientific Programme column of this **Daily News** introduces a number of scientific papers in diverse disciplines. Nevertheless, the papers introduced here are merely a fraction of the whole Scientific Programme. A full list of the scientific sessions is available at the 59th ISI WSC website (www.isi2013.hk/en/index.php) and the *Information Bulletin No.2*.

Government statistics: latest development and issue

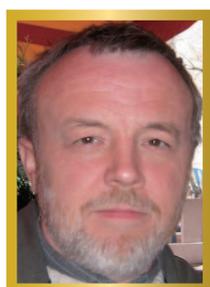
In the last decade, there have been notable structural changes in the economic, social and political environment of the world. In this respect, today's *Invited Paper Session* on “Latest development and issue of government statistics” will have 3 discussion papers on statistical development relating to these changes (IPS093, 09:00 at Theatre 2). The session will be chaired by Dr Zude Xian, Chief Statistician of the National Bureau of Statistics of China, while Leslie W.K. Tang from the Census and Statistics Department of Hong Kong, Dr Konrad Pesendorfer of Statistics Austria, and Ronghua Xu of the National Bureau of Statistics of China will present papers on this topic, with the former Director of United Nations Statistics Division, Professor Paul Cheung, being the discussant.



Dr Zude Xian,
Chair of IPS093

The session will start with Leslie's presentation on his paper entitled “Challenges encountered in developing new area of official statistics in Hong Kong”, discussing the rationale behind the Census and Statistics Department of Hong Kong in launching new areas of statistical framework. Konrad will then talk on his paper “Implications of the financial and economic crisis on the European statistical system” and last but not least, Ronghua will discuss his paper “Main changes in the official statistical production process of China” on the statistical reform carried out in the recent 3 years in the National Bureau of Statistics of China.

The modelling of extreme values: Projection of future risks on rare events



Anthony Davison is a Professor of Statistics from Ecole Polytechnique Fédérale de Lausanne of Switzerland. His presentation today is on a paper titled “Modelling of extreme rainfall in space and time”, which is an integral part of the *Invited Paper Session* “Probabilistic and statistical contributions in climate research” (IPS001, 09:00 at Convention Hall C).

The need for accurate estimates on the upcoming risks of rare events, such as changing climate, has become increasingly important. This has given rise to the adoption of modelling of extreme values on spatial and space-time processes (e.g. rainfall and heatwaves). Stakeholders of probabilistic models like engineers, public authorities and insurance companies have placed an ever-higher emphasis on this modelling approach, for reason that the assumption of stationarity on the underlying phenomenon has become less reliable. The purpose of this talk is to survey approaches to the space-time modelling of extreme rainfall, which may be based on max-stable and related processes. Various approaches and models will be described, and their relative merits compared through application to a large set of hourly rainfall data will be discussed as well.

Statistics: a beam light for crime prevention

In “The impact of victimisation on the daily activities of South Africans – A case study of the 2011 Victims of Crime Survey” (IPS017, 15:30 at Convention Hall A), Pali Lehohla, Statistician-General for Statistics South Africa, will present the relationship between crime and victimisation statistics and the impact it has on the daily activities of the South Africans.



According to the South African National Development Plan 2030, by 2030, people living in South Africa should feel safe and have no fear of crime. Policies related to safety and security can only begin to improve the living conditions of ordinary citizens if they are based on comprehensive statistical databases that include not only information from administrative sources, but also from victimisation surveys. By examining the relationship between crime and victimisation statistics, Pali is looking at ways how statistics can be used to formulate crime prevention policies and strategies, as well as for establishing performance targets and indicators for assessment of interventions and progress in relation to safety and security.

New challenges facing official statistics

At today's *Invited Paper Session* “IAOS forum – A panel discussion on new challenges facing official statistics” (IPS009, 13:00 at Convention Hall B), some prominent leaders in official statistics will discuss a number of topics of great interest to statisticians working on official statistics. Some expected topics include:

1. Is open data a threat or an opportunity? How should NSIs respond?
2. Under scarce resources, should we focus on data collection and consign the analysis part?
3. How can National Statistics Institutes best collaborate to reduce costs?
4. How can the official statistical community best support its members who have issues of statistical integrity with their governments?
5. What should the boundaries of official statistics be?
6. How do we draw a borderline between research and statistics or forecasting / nowcasting and statistics?
7. Should we produce data that are meant purely for administrative use?
8. How should we respond to those who would like us to measure something which actually is not measurable?



Stephen Penneck,
Chair of IPS009

The panel session will be chaired by Stephen Penneck, President of IAOS, with the following five prominent statisticians joining the conversation:

Marjo Bruun	Director General of Statistics Finland
Carmelita Ericta	Administrator and Civil Registrar General of the Philippines
Jil Matheson	National Statistician of the United Kingdom
Eduardo Nunes	Former President of IBGE of Brazil
Walter Radermacher	Director General of Eurostat

Getting to know the atmospheric radiation with quantile regression



Jaromir Antoch is a Professor of Statistics at Charles University, Prague. At today's *Special Topic Session* of “The LAD methods and their statistical inferences”, he will be presenting his paper on “Profiles of atmospheric radiation: Quantile regression of profiles in time” (STS003, 09:00 at Room S223).

To improve understanding of the distribution of environmental radiation based on the measurements of the vertical radioactivity profiles by a sonde system, a nonlinear quantile regression is chosen by Professor Antoch for conditional quantile functions. Although the calculation of the nonlinear regression quantiles is very complicated computationally, his presentation will describe, under certain assumptions, that the quantiles can be computed in a much simpler way directly from the estimated intensity of the observed radioactivity process without the need for numerical iterations. He will also focus on a combined approach to the quantiles when a parametric model is available, and when the quantiles are estimated from the corresponding residuals either nonparametrically or parametrically. The approach will be illustrated on a unique data set gathered through many years (analogous measurements are available only from Hong Kong and Finland).

On a threshold autoregression



Professor Wai-keung Li is the Chair Professor of Department of Statistics and Actuarial Science of the University of Hong Kong who conducts extensive researches on such areas as stochastic analysis and time series analysis. He is also a Fellow of both the American Statistical Association and the Institute of Mathematical Statistics. He will present a paper today entitled “On a threshold autoregression” at the *Invited Paper Session “Applications on Modelling Time Correlated Count Processes”* (IPS013, 13:00 at Room S228).

Professor Li’s presentation will centre on the theory and inference of an observation-driven model for time series of counts. It is assumed that the observations follow a Poisson distribution conditioned on an accompanying intensity process, which is equipped with a two-regime threshold structure according to the magnitude of the lagged observations. The model remedies one of the drawbacks of the Poisson integer-valued GARCH model by allowing negative correlation in the observations. Moreover, the asymptotic theory of the maximum likelihood estimates of the parameters is established. A simulation study and a real data application are considered, where the model is applied to the number of major earthquakes in the world.



An overview of Monte Carlo methods

Christian Robert is a Professor from the Department of Ceremade at Université Paris Dauphine in Paris. He will present his paper “An Overview of Monte Carlo methods, from importance sampling to MCMC, to ABC” at the *Invited Paper Session on “History I: Jacob Bernoulli’s ‘Ars Conjectandi’ and the emergence of probability”* (IPS008, 13:00 at Theatre 1).

Computational methods based on simulations have a significant role in the broadening of the statistics discipline into many applied fields. They have also made possible the on-going “Big Data” revolution as well as statistical computing nowadays. In Professor Robert’s talk, he will retrace the history of Monte Carlo methods from the early days of Ulam and von Neumann to the current challenges of highly complex stochastic systems. In particular, the development of Markov chain Monte Carlo (MCMC) from its early inception in the late 1940’s to a fusion between importance sampling and Markovian techniques, with recent solutions like pMCMC and SMC2, will be depicted. The special case of “likelihood-free” methods like Approximate Bayesian Computation (ABC), which draws a bridge between traditional usages of simulation and non-parametric inference, will be addressed.



Healthy? How healthy?

Mika Gissler is the Research Professor of Information Department at THL National Institute for Health and Welfare, Helsinki, Finland. Professor Gissler will give a talk today at the *Invited Paper Session on “The role of HIS/HES/DIS for measuring the health dimension”* (IPS002, 09:00 at Room S421).

Professor Gissler says that most countries continue to rely on mortality figures and service-based data as indicators on the utilisation of health care services. He points out that such data do not provide a complete picture on the health status of an area, which is where HIS/DIS (health/disability interview surveys) and HES (health examination surveys) come in. Using the results of these surveys, representative population-based health data can be developed. “HIS/HES surveys are not based on self-reports only,” he explains, “they are also backed up by clinical measurements of diseases and medical conditions diagnosed by health care professionals.”

According to Professor Gissler, the advantage of these surveys is the combination of measured health status, self-reported health determinants and socio-economic conditions. Together, he says, such surveys enable in-depth analysis. They can also be used for estimating distributions and inequalities between various sub-populations.

In search for better measurements of well-being beyond GDP

The appropriate choice of indicators of social well-being is key to formulate policies that better respond to the need of our society. Two respected experts, with deep understanding on this topic, will today present their respective papers at the *Invited Paper Session* on “IARIW-session on the measurement of well-being” (IPS103, 15:30 at Convention Hall B).



Walter J. Radermacher is the Director General of Eurostat and Chief Statistician. He will be presenting his paper “Recent and future developments related to ‘GDP and Beyond’”.

In 2009, both the Sitglitz-Sen-Fitoussi (SSF) report and the European Commission’s

published Communication on “GDP and beyond: measuring progress in a changing world”, triggered the launch of a series of actions undertaken by the European Statistical System (ESS) on complementing the existing instruments measuring growth such as by measures on environmental sustainability and social inclusion. Their recommendations have been translated into a plan with about 50 actions to be carried out by 2020.

In this session, Walter will discuss the progress of the above-mentioned 50 actions in detail and the direction in which the work is expected to be further developing in the future.

Philippe Cuneo, the Methodology, Statistical Coordination International Relations Directorate of French National Institute of Statistics and Economic Studies (INSEE), will present a paper entitled “Measurement of quality of life and well being in France: The drivers for subjective well being”.



Being heavily involved in implementing the recommendations of the SSF, the INSEE has expanded the scope of its existing surveys and also launched a new and innovative experimental survey to measure people’s well-being. The new survey allows not only the study of correlation between various dimensions of quality of life and the accumulation of deprivations, but also a better understanding on the links between objective determinants of quality of life and subjective well-being. The main findings of the experimental survey will be presented in this talk.

Challenges in the future: Official statistics in the Arab region

At today’s *Special Topic Session* of “Official statistics in the Arab Region – Challenges and the way forward”, Ola Awad, President of Palestinian Central Bureau of Statistics (PCBS), will discuss her paper titled “Official statistics in the Arab region: Viable Arab framework to respond to common challenges” (STS052, 15:30 at Room S222).

For the Arab region to catch up with well-developed National Statistics Offices (NSOs) worldwide in statistical infrastructure and providing statistics for formulation of national policies, the availability of a statistical framework viable and customised to the Arabs is a pre-requisite. As the external environment is different in many areas between the Arab region and other parts of the world, many challenges are awaiting, such as managing statistical priorities, utilising statistics meeting user requirements, educating users, influencing decision makers and developing new statistical areas. In her talk, Ola will examine the potential development of the Arab framework, which focuses on trust, relevancy, attractiveness and competitiveness, to better respond to these challenges supported by best practices in each area.





International Association for Statistical Computing (IASC)



Membership in the IASC is open to all individuals and organisations who are interested in promoting the theory, methods, and practice of statistical computing. Our mission is to integrate statistical methodology, advanced computer technology, and field-specific knowledge in order to extract the maximum of information from data.

The IASC works to share and advance methods and techniques related to the topics of computational statistics, exploratory data analysis, data mining, pattern recognition, statistical databases, data visualisation, and related fields such as statistical software, computational finance, statistical computing and e-commerce, customer relation management, computer intensive methods, census and official statistics, and quality control. Our main objectives are to foster world-wide interest in statistical computing and to exchange ideas and knowledge through international contacts and meetings between statisticians, computing professionals, organisations, institutions, governments and the general public.

To pursue these objectives, we publish *Computational Statistics & Data Analysis* (www.journals.elsevier.com/computational-statistics-and-data-analysis/) as our official journal and we organise conferences such as the IASC World Conference, the COMPSTAT Conference in Europe, and the ARS Conference on Statistical Computing in Asia, as well as Summer Schools, Data Analysis Competitions, and Invited Paper Sessions or Special Topic Sessions at the ISI WSCs with a special focus on developing countries.

Forthcoming events organised by the IASC include:

- Summer School on R of the IASC (ERS), September 23-September 27, 2013, Vorau, Austria (rsummer.data-analysis.at/)
- Summer School on Compositional Data Analysis (CoDA), July 7-July 11, 2014, Girona, Spain (www.compositionaldata.com/pages/codacourses.php)
- COMPSTAT 2014, August 19-August 22, 2014, Geneva, Switzerland (compstat2014.org)
- COMPSTAT 2016, TBA, Oviedo, Spain

If you would like to learn more about the IASC, please visit www.iasc-isi.org.

Karen Kafadar
IASC, Outgoing President



ISI membership

Become an ISI member before you leave Hong Kong! Just visit the ISI Office (Room S227) any time during the Congress and leave us your email address.

Weather forecast

 Mainly fine 27 - 32°C	 Mainly fine 27 - 32°C	 Mainly fine & very hot 28 - 33°C	 Sunny periods 27 - 32°C	 Sunny periods & showers 27 - 32°C	 Sunny intervals & showers 27 - 31°C
August 26 Monday	August 27 Tuesday	August 28 Wednesday	August 29 Thursday	August 30 Friday	August 31 Saturday