



World Statistics Congress

HONG KONG 2013

# Daily News

59<sup>th</sup> ISI World Statistics Congress

28 Aug 2013 • Wednesday

## Youth Theme Day

In today's knowledge-based society driven by information, the youth plays a significant role in shaping the future through their creativity and receptivity. This is no exception to the statistics field. With this in mind, the Congress has put forward "Youth" as this year's theme and specially devoted today to be the "Youth Theme Day", aimed at encouraging the active participation of young people in the statistics profession. This echoes the goal of the 2013 International Year of Statistics. Professor Delia North and Professor Byeong Uk Park are the Youth Theme Co-organisers. A series of "Youth"-related scientific sessions on diverse topics are organised exclusively for the theme.



Professor Delia North,  
Youth Theme Co-organiser

### Special invited panel on career development



Professor Byeong Uk Park,  
Youth Theme Co-organiser

One of the highlights of today is the *Invited Paper Session* "Special invited panel on career development" (IPS 101, 15:30 at Theatre 1) chaired by Byeong Uk Park, Professor of Department of Statistics at Seoul National University and Co-organiser of the Youth Theme. With the unprecedented demand for statistical skills and increasingly wide application of data and statistics in the modern society, the number of job opportunities goes up dramatically. The great variety of opportunities probably triggers the interest of many future statisticians. In this session, the prominent speakers will introduce the related trends, challenges for this profession, opportunities available and the general technical skills to be expected from future statisticians.

Talks to be delivered in the session include:

"Business analytics and big data: What do statisticians need to succeed?" by Dr Robert N. Rodriguez, 2012 President of the American Statistical Association and Senior Director of Statistical Research and Development of SAS Institute.



Dr Robert N. Rodriguez

"What is expected from future statisticians for them to adapt to the future of the profession?" by Jef Teugels, President of ISI in 2009-2011 and Professor Emeritus of the Catholic University of Louvain.



Professor Jef Teugels



<http://www.isi2013.hk>

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*The following are the list of "Youth"-related scientific sessions to be presented today*

ISBIS new researchers session	IPS046, 09:00 at Theatre 1
Statistical methods for climate problems	IPS048, 09:00 at Room S421
Data visualization for youth appeal	IPS049, 09:00 at Room S228
Statistical methods in new frontiers	IPS050, 09:00 at Room S428
High dimensional methods for bioinformatics and genetics	IPS052, 09:00 at Room S225
Novel statistical designs of clinical trials	IPS053, 09:00 at Room S423
Statistical methods in genetics studies	IPS054, 13:00 at Convention Hall B
Youthful science: Statistical learning in high dimensions	IPS056, 13:00 at Convention Hall A
Postgraduate students' session	IPS058, 13:00 at Theatre 2
Learning to teach and assess statistics at the tertiary level	IPS059, 13:00 at Room S421
Statistical analysis in educational assessment	IPS061, 13:00 at Room S428
Random probability measures and their applications	IPS065, 15:30 at Room S421
Careers in analytics	IPS066, 15:30 at Convention Hall A
Promoting statistics to youth through the International Statistical Literacy Project	IPS068, 15:30 at Room S228
Improving statistics teaching: Bringing statisticians and educators together	IPS069, 15:30 at Room S428
Special invited panel on career development	IPS101, 15:30 at Theatre 1

## Hong Kong Night - A taste of the East by the harbour side

The Hong Kong Night took place yesterday at City Hall Maxim's Palace. After 2 days of scientific seminars and meetings, our Congress participants congregated again in this grand restaurant along the Victoria Harbour, spending a night together to enjoy the delectable Chinese cuisines and captivating entertainments.

The evening commenced with a cosy cocktail reception, featuring demonstration of the making of traditional Chinese snacks and folk crafts. Many of our participants were fascinated by the skilfulness and delicacy of the souvenirs.



Shortly before dinner, Mrs Lily Ou-Yang, Chairperson of the Local Organising Committee (LOC) of the 59<sup>th</sup> ISI WSC, greeted the delegates and wished them a pleasant stay in Hong Kong.

Last night, participants were not just pampered with tasty dishes, but also rounds of traditional Chinese arts such as long spout teapot tea-pouring, Chinese acrobatics and hand-pulled noodle-making. Many expressed that it was their first time to see these performances live on stage, while others appreciated the savoury food a lot.



## Snapshots at Exhibition Hall



## News on public seminars

### *Open Meeting on Statistical Capacity Building*

*28 August 2013, Wednesday, 11:15-13:00, Theatre 2, HKCEC*

All participants are invited to attend this meeting and share your thoughts on Statistical Capacity Building (SCB) in developing countries.

Over the past few years, the ISI has been working hard to promote the development of statistics and build statistical capacity in developing countries. It is expected that SCB will be a continuing strategic thrust for the ISI in the future. SCB includes activities related to statistical teaching and education in schools and colleges, improving the state-of-practice in both private and public sectors in areas such as data collection, data quality, data analysis, use of statistical software and computing technology, and so on. One of our first challenges will be to work with the local stakeholders in different countries to identify the needs, determine what are common and what are unique, and decide on the ones ISI can address. Given the limits on ISI resources (in terms of funding, people and expertise), we must prioritise the areas where we can contribute and develop a strategy for maximum impact.

To facilitate better and more accelerated efforts in organisation, planning, and development, ISI plans to launch an Operational Committee on Statistical Capacity Building that will advise the ISI Executive in developing and implementing SCB initiatives. ISI has access to experts and experiences in statistical capacity building and statistical education and training in all branches of statistics. These experts can be used to (i) develop strategic steps to achieve our objectives, (ii) facilitate and consolidate the existing resources for the efforts, (iii) identify efficient means for statistical education, training and mentoring and (iv) foster the careers of young statisticians from the developing world in all aspects of statistics and its education, including mentoring.

To inform the ISI membership at large about past, ongoing and planned SCB activities, there is an Open Meeting on Statistical Capacity Building planned for today at 11:15-13:00 in Theatre 2. We want to especially welcome participants who have experience with SCB activities in developing countries.

Jef L. Teugels, ISI Ambassador for Africa & Vijay N. Nair, President-Elect of ISI

## Daily announcements

### *Women's Networking Reception*

*Organised by the ISI Committee on Women in Statistics, chaired by Penelope Bidgood and sponsored by IBM*

Time: 28 August 2013, Wednesday, 17:30 - 19:00

Venue: Immigration Officers Mess, 20/F, Immigration Tower (opposite to HKCEC, 5 minutes walk)

Followed by round-table discussions on roles and opportunities for women statisticians.

Today's events	Time & venue
International Association of Survey Statisticians (IASS) General Assembly I	11:15 - 13:00 Theatre 1
International Association for Statistical Education (IASE) International Statistical Literacy Project (ISLP) Open Meeting (including International Association for Official Statistics (IAOS))	11:15 - 13:00 Room S421
ISI & Statistical Capacity Building Open Meeting	11:15 - 13:00 Theatre 2
Women's Networking Reception	17:30 - 19:00 Immigration Officers Mess (20/F Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong)
Dinner Hosted by Local Organising Committee (by invitation only)	From 19:30 Jumbo Floating Restaurant (Shum Wan Pier Drive, Wong Chuk Hang, Aberdeen, Hong Kong)

# 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 59<sup>th</sup> ISI WSC website ([www.isi2013.hk/](http://www.isi2013.hk/)) and the *Information Bulletin No.2*.

## COMFORT-CCClass: A common market factor non-Gaussian returns model



Marc S. Paoella is Professor of Empirical Finance at the University of Zurich in Switzerland. His research focuses on computational statistics, GARCH, risk prediction, and time series analysis. At the *Invited Paper Session* today on “Nonlinear financial time series modeling”, he will be presenting a paper titled “COMFORT-CCClass: A common market factor non-Gaussian returns model” (IPS055, 13:00 at Theatre 1).

Professor Paoella will be discussing a new multivariate returns model by extending the CCC model in several ways, allowing for the prediction of all primary stylised facts of asset returns and the dynamics in the dependency between assets over time. Through developing a fast EM-algorithm for estimation, a predictable component can be obtained from the stochastic process, in which each marginal (as required for portfolios) is endowed with a common univariate shock, interpretable as a common market factor. Professor Paoella will show that this new model, a hybrid of GARCH and stochastic volatility, is applicable in the multivariate setting for potentially large numbers of assets without the estimation problems associated with the stochastic volatility. The superiority of the model to numerous competing ones has been confirmed by in-sample fit and out-of-sample conditional density forecasting exercises using daily returns on the 30 Dow Jones Industrial Average (DJIA) stocks.

## A genomics Internet



Dr Hongyu Zhao is Ira V. Hiscock Professor of Public Health (Biostatistics) and Professor of Genetics and Statistics in Yale University. He will, at today's *Invited Paper Session* on “Network modelling in biological, computer, public health, and social sciences”, go through with us his paper, which is joint work with other researchers, titled “Inferring biological networks from genomics data” (IPS063, 15:30 at Theatre 2).

In systems biology, revealing networks of biological components is one of the key areas of research, as it has potential applications in understanding disease physiology and drug discovery. With advances in high throughput biology, scientists can now measure the expression levels and DNA variations at the genome level, offering the opportunity to infer the genetic network from these data statistically. In his presentation, Professor Zhao will discuss several approaches for network inference through jointly analysing gene expression data. Both theoretical and simulation results will be presented. He will also demonstrate the usefulness of the above approaches through applications to real data.

## New forms of data for official statistics

Data for statistical purposes has traditionally been collected through large, designated surveys run by statistical agencies. This way of producing data is very expensive and statistical agencies are faced with budget restrictions. At today's *Special Topic Session* “New forms of data for research, policy evaluation and official statistics”, Niels Ploug, Director of Social Statistics in Statistics Denmark, will present his paper “New forms of data for official statistics” which deals with two issues in relation to new forms of data for official statistics (STS027, 13:00 at Room S228).



The first issue to be discussed is the possibilities and challenges in the use of administrative data sources in the production of official statistics. There is an increasing use of administrative data in official statistics in many countries and the European Statistical System (ESS) has aimed at enhancing its practice within the official body. The second issue is the future prospects in using “Big data” in relation to the production of statistics. The increase of individuals and companies leaving electronic footprints as part of their digital activities gives new opportunities to existing statistics as well as production of new statistics. Besides exploring and illustrating these new opportunities, Niels will also discuss a number of important issues related to the development of new forms of data for official statistics like documentation and confidentiality issues.

## *New methodology of updating area sampling frame by remote sensing cropland classification data*



Xinhua Yu is the Senior Statistician of the Department of Rural Surveys of the National Bureau of Statistics (NBS), China. At today's *Special Topic Session* of "Using geospatial information in area sampling and estimation for agricultural and environmental surveys", Xinhua will present his paper entitled "Using remote sensing cropland classification data to update area sampling frame" (STS043, 15:30 at Room S425).

NBS uses remote sensing technology to estimate crop acreage. However, due to limitation on availability of current satellite images, NBS makes use of historical satellite images to update the area sampling frame constructed by combining land-use census data and agricultural census data. This approach has been used to produce the Utilised Cropland Data and remote sensing classification data. In this session, Xinhua will illustrate the new area sampling method, with which the design-based inference and model-based inference would be compared for illustrating the advantages of the new methodology.

## *Modern approach to censuses in the case of Poland*

Grażyna Marciniak, the Vice President of Central Statistical Office of Poland, will present her paper titled "Modern approach to censuses in the case of Poland – Advantages and constraints" at today's *Special Topic Session* on "Role of population and housing and agricultural censuses in the national statistical systems" (STS063, 09:00 at Room S427).

The Agricultural Census 2010 as well as the National Census of Population and Housing 2011 were carried out in Poland in the framework of a common project, aiming at implementation of a mix-mode approach, with paper forms entirely eliminated. It required development of an adapted IT architecture and organisational structure, preparation of staff for the new technological and organisational circumstances, development of a coordination and quality management system, as well as the system for integration of data drawn from various sources. The purpose of this paper is to contribute to discussions on the future of censuses. Reference is made to the Polish experience of adaptation of the method based on data from administrative records combined with sample survey, as well as the use of modern technologies for data collection, monitoring, data processing and elaboration of the results. Main features of this transition, with highlights of its innovative character, will be illustrated. Also, Grażyna will discuss the purposes of the adopted approach, difficulties and constraints met in the course of implementation, as well as lessons derived from the project and how the acquired experience will be further used.



## **ISI Bulletin Board**

### *International Association of Survey Statisticians (IASS)*

The buzz of Big Data is everywhere these days, especially here at the 59<sup>th</sup> ISI WSC in Hong Kong. Our capacity to collect and analyse data today is an order of magnitude greater than at the last Congress in Dublin two years ago. However, this means that deciding what data can be practically and efficiently collected is even more important than ever. Statistical surveys and censuses are at the core of how statistical science is used for designing data collections, integrating different data sources, and analysing the end result in a way that takes account of the complexities of these processes. Proper application of survey methodology can make a big difference to the value of Big Data.



IASS was founded in 1973 to promote the study of the theory and practice of surveys and censuses, and increase interest in surveys and censuses around the world. Its members include statisticians from official statistics, from the private sector and from academia.

IASS activities focus on building and sharing knowledge relating to good survey practice, and assisting in the development of survey statisticians. Its twice yearly newsletter, the *Survey Statistician*, includes an Ask the Experts column that provides practical responses to questions. The newsletter also features articles by leading international experts on important data issues.

The IASS sponsors relevant conferences and workshops, including ISI WSC satellite meetings, and is a significant contributor to the short courses before each Congress. IASS sponsored Invited Paper Sessions at this Congress include topics ranging from measuring the impact of natural disasters to ways that web surveys can be used to produce official statistics.

Every two years the IASS awards the Cochran-Hansen Prize to the best research paper on survey methods by a young survey statistician from a developing country. This year's winner is Dr Emilio Lopez Escobar of Instituto Tecnológico Autónomo De México (ITAM). He will receive his award in the ISI & Associations' Awards Ceremony at 15:30 tomorrow (29 August 2013) to be held in Convention Hall B, L1 of HKCEC.

The 59<sup>th</sup> ISI WSC is particularly significant for IASS since it will be where the IASS becomes a fully integrated Association of the ISI. In fact, there will be two General Assemblies of the IASS here in Hong Kong. The first will be at lunch time at 11:15-13:00 today in Theatre 1 of HKCEC, and the second will be at 11:15-13:00 on Friday (30 August 2013) in the same place (Theatre 1). The main purpose of the second Assembly will be to vote on a revised set of statutes for the IASS as an Association of the ISI.

Anyone interested in more information about the IASS should visit [isi.cbs.nl/iass/allUK.htm](http://isi.cbs.nl/iass/allUK.htm), where new members can join up and existing members can renew their membership.

Raymond Chambers  
IASS, Outgoing President

## *Memorandum of Understanding between the ISI and the Irving Fisher Committee*



A Memorandum of Understanding (MoU) between the ISI and the Irving Fisher Committee (IFC) was signed on 26 August 2013 by ISI President Jae Chang Lee and IFC Chairperson Muhammad bin Ibrahim. The MoU establishes the affiliation of the IFC with the ISI and promotes the sharing of information between the two parties and increasing mutual cooperation.

The IFC will be permitted to propose invited and contributed sessions at the WSC and will promote the membership to the ISI among its institutional members and its staff. Both parties expressed their satisfaction with this successful arrangement for the formal relationship between the ISI and IFC which hopefully will bear fruit in future.

## *IASE ISLP Open Meeting (including IAOS)*

*28 August 2013, Wednesday, 11:15-13:00, Meeting Room S421, HKCEC*



### Agenda

- 1 Introductions/IASE President, Chair of the ISLP Advisory Board John Harraway, ISLP Executive Reija Helenius, Sharleen Forbes and Pedro Campos
  - Welcoming
  - Introducing ISLP Executive, Advisory Board, Country Coordinators
- 2 Reviewing the ISLP in 2012-2013/ISLP Executive Reija Helenius, Sharleen Forbes and Pedro Campos
- 3 Country Coordinators' reports from Hungary and Italy: examples of the ISLP activities
  - Hungary/Assistant Professor Peter Kovacs, Department of Statistics and Demography, Faculty of Economics and Business Administration, University of Szeged
  - Italy/Researcher Marina Peci, ISTAT
- 4 Discussion items
- 5 Finishing the meeting

## Thankfulness to the major sponsor – SAS Institute Ltd.

The Local Organising Committee would like to express their utmost thankfulness to the major sponsor of the 59<sup>th</sup> ISI WSC, SAS Institute Ltd., for its generosity in supporting social events and participation of Hong Kong students in the 59<sup>th</sup> ISI WSC.



## Local information

### Weather forecast

 <p>Mainly fine &amp; very hot 27 - 33°C</p>	 <p>Mainly fine &amp; very hot 28 - 33°C</p>	 <p>Sunny periods &amp; showers 28 - 32°C</p>	 <p>Mainly cloudy &amp; showers 27 - 31°C</p>	 <p>Mainly cloudy &amp; showers 26 - 30°C</p>	 <p>Mainly cloudy &amp; showers 26 - 30°C</p>
August 28 Wednesday	August 29 Thursday	August 30 Friday	August 31 Saturday	September 1 Sunday	September 2 Monday

### A famous spot in Hong Kong – Tsim Sha Tsui



Tsim Sha Tsui is renowned as a must-go scenic spot in Hong Kong. Situated next to the dazzling Victoria Harbour, Tsim Sha Tsui is irrefutably the heart of this Asia's World City. Starting at the colonial-era Clock Tower next to the Star Ferry pier, you can stroll along the Tsim Sha Tsui Promenade to view the skyline of Hong Kong Island across the Harbour, or visit the many attractions nearby, such as Hong Kong Cultural Centre, Hong Kong Space Museum, Hong Kong Museum of Art and Avenue of Stars.

The Avenue of Stars by the harbour side presents you the history and glamour of Hong Kong's film industry, with commemorative plaques, celebrity handprints, descriptive milestones and a life-size statue of kung fu movie star Bruce Lee.

Starting at 20:00 every night, the Tsim Sha Tsui waterfront is brightened up with colourful lights, laser beams and searchlights in the multimedia show "A Symphony of Lights", with more than 40 buildings on both sides of the harbour involved in displaying decorative lights accompanied by orchestration of music.