

# **ISI & ISI Associations' Awards 2012-2013**

*Featured at the 59<sup>th</sup> ISI WSC in Hong Kong*

**ISI Awards Committee**

# ISI & ISI Associations' Awards 2012-2013

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## **ISI & ISI Associations' Awards Ceremony**

*Thursday 29<sup>th</sup> August, 15:30-16:30*

### **Awards**

ISI Mahalanobis Award

ISI Jan Tinbergen Awards

ISI Karl Pearson Prize

IAOS Prizes for Young Statisticians

IASC Homage Award

IASE ISLP Best Cooperative Project Award in Statistical Literacy

IASE ISLP Poster Competition

IASS Cochran-Hansen Prize

ISBIS Young Statistician Award for the Best Paper

ISBIS Best  $\gamma$ -BIS Poster Awards

TIES Abdel El-Shaarawi Young Investigator Award

### **Funds for participation in the 59<sup>th</sup> ISI WSC in Hong Kong**

World Bank Fund

Wakimoto Memorial Fund

African Development Bank Fund

Statistics South Africa Fund

## Foreword

*By Jae C Lee, ISI President*



This is the second Awards Ceremony at the World Statistics Congress after the WSC in Dublin in 2011. A large number of winners and the high quality of their work show that the ISI and its Associations are recognizing important achievements by their members. The ISI Executive realized the variety of prizes, honours and other awards provided by the ISI and its Associations and thought it desirable to widely publicize the distinguished winners and their awards among the ISI family as well as the international statistical community through the various means of communication that the ISI possesses. If all the awards are bestowed during this single Awards Ceremony at the ISI's biennial WSC, the greater prestige would be naturally attached to them.

This year we are celebrating the International Year of Statistics and focus on the theme of "Youth" during the ISI's World Statistics Congress. The Awards Ceremony will naturally highlight these significant events, as well ISI's new Karl Pearson Prize which is inaugurated for the first time this year. The current brochure will improve publicity and prestige of the awards that the ISI family feels very proud of. The Chair of the ISI Awards Committee Vincenzo Esposito Vinzi has offered his time and energy in coordinating all award processes including juries and selection subcommittees. I would like to take this opportunity to commend his devotion to the Awards Committee during the last four years.

It is my very special privilege on behalf of the whole ISI family to congratulate all winners for their accomplishments and wish them success for the future. We sincerely hope that you cherish the special memory of this ceremony in Hong Kong for a long time.

## Foreword

*By Vincenzo Esposito Vinzi, ISI Awards Committee Chair*



On behalf of everyone associated with the organization of the 2013 ISI & ISI Associations' Awards Ceremony, it is my greatest pleasure to introduce you to the second edition of this tremendous initiative. In 2011, the ISI Awards Committee, in collaboration with the ISI President, ISI Director and ISI Permanent Office, launched this initiative for the first time ever in the history of the ISI at the WSC in Dublin. ISI Associations welcomed this idea with enthusiasm and actively contributed to the Awards Brochure by providing information on the prizes and winners. The Ceremony will feature the special participation of the Indian Ministry of Statistics and Programme Implementation for presenting the ISI Mahalanobis Award. Similar to the first edition in 2011 in Dublin, Presidents and representatives of the Associations will join the Awards Ceremony in Hong Kong to hand over the Prizes and Awards to the winners. This initiative is meant to give the deserved visibility and importance to the wide range of Awards and Prizes in the ISI family as well as to their outstanding recipients.

I would especially like to thank the members of the several judging and selection committees, who worked at the levels of both ISI and the different Associations for their outstanding availability and objectivity.

This year the ISI established a new prize: The Karl Pearson Prize for Contemporary Research Contribution. This Prize will be given in recognition of a research article or book, published within the last three decades, that has had profound influence on statistical theory, methodology, practice, or applications. The ISI is grateful to Elsevier for sponsoring the prize and for covering the winner's travel expenses to the WSC to present the lecture.

Our sincere gratitude goes also to the partners and sponsors that provided scientific, financial and logistical support needed to make this ceremony happen.

I truly hope you will all enjoy attending the Awards Ceremony that is becoming a traditional and attractive happening at the ISI WSCs!

## ISI Mahalanobis International Award in Statistics

*The award is a biennial initiative of the Indian Ministry of Statistics and Programme Implementation, representing the Government of India, in memory of the eminent Indian statistician Professor P.C. Mahalanobis. It is given to a selected statistician from a developing country who has worked there in recognition of his/her lifetime achievement in Statistics and the promotion of best statistical practices.*



*Professor P.C. Mahalanobis (1893-1972) was an Indian scientist and applied statistician. He is best remembered for the Mahalanobis distance, a statistical measure. He made pioneering studies in anthropometry in India. He founded the Indian Statistical Institute, and contributed to the design of large scale sample surveys.*

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## 2013 Award Winner: **Lamine Diop**

Mr. Lamine Diop, Senior Statistical Consultant from Senegal, won the award for his worthy contributions in promoting the use and progressing the development of Statistics in Sub-Saharan Africa. His 40 plus years of high-impact professional career and service have led to accomplishments that have strengthened capacities for Official Statistics in Sub-Saharan Africa where he has been a leader in Statistics. He has made outstanding contributions to this field, including statistical education and training - as Director of Statistics and Director of European Training Centre for Statisticians in Developing Countries amongst other posts. Lamine Diop has taught, administered programmes, negotiated financial resources, developed national accounts and in general helped in promotion of development of his region. The members of the ISI 2013 Committee for the Mahalanobis International Award in Statistics unanimously agree that Lamine Diop is an extremely worthy recipient of the award, selected from a strong field of nominations.



## ISI Jan Tinbergen Awards

*The Jan Tinbergen Award is an initiative of the International Statistical Institute (ISI) given to young statisticians from developing countries for best papers on any topic within the broad field of statistics. Papers submitted must be unpublished, original works that may include material from participants' university theses. Each winner will receive a monetary prize and is invited to present his or her paper at the Young Statisticians' Satellite Meeting, which precedes the World Statistics Congress (WSC) of the ISI.*



*Professor Jan Tinbergen (1903–1994) was a Dutch economist. He was awarded the first Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel in 1969, which he shared with Ragnar Frisch for having developed and applied dynamic models for the analysis of economic processes. Tinbergen was a founding trustee of Economists for Peace and Security.*



### 2013 1<sup>st</sup> Prize Winner: **Abhik Ghosh**

Mr. Abhik Ghosh, India, received the prize for his paper "On Robust Minimum Divergence Estimation Based on the S-Divergence".

### 2013 2<sup>nd</sup> Prize Winner: **Lu Han**

Mr. Lu Han, China, received the prize for his paper "Nonlinear Mixed-Effects State Space Models with Applications to HIV Dynamics".



### 2013 3<sup>rd</sup> Prize Winners:

### **Iris Ivy Gauran & Maria Sofia C. A. Poblador**



*I.I. Gauran*

Ms. Iris Ivy Gauran and Ms. Maria Sofia C. A. Poblador, both from the Philippines, received the prize for their paper "Classification of Congenital Hypothyroidism Using Artificial Neural Networks".



*M.S. Poblador*



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## ISI Karl Pearson Prize

The ISI's Karl Pearson Prize was established in 2013 to recognize a contemporary a research contribution that has had profound influence on statistical theory, methodology, practice, or applications. The contribution can be a research article or a book and must be published within the last three decades. The prize is sponsored by Elsevier B.V.



Karl Pearson (1857-1936) was a key figure in the development of Mathematical Statistics. His contributions include: the correlation coefficient; the Chi-squared statistic for testing goodness-of-fit and for measuring association in contingency tables; the method of moments; the Pearson family of frequency curves, and a flexible class of distributions. He wrote *Grammar of Science*, a foundational book with an empirical approach to the philosophy of science, and was co-founder of the journal *Biometrika*.

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## 2013 Award Winners:

### Peter McCullagh & John Nelder\*



P. McCullagh

Peter McCullagh is the John D. Macarthur Distinguished Service Professor at the Univ. of Chicago. His research interests include statistical models and scientific applications. John Nelder (1924-



J. Nelder

2010) was among the most influential statisticians of his time. He made pioneering contributions to statistical theory, computational methods, design of experiments, and data analysis. The inaugural Karl Pearson Prize is awarded to them for their monograph *Generalized Linear Models* (1983). This book has changed forever teaching, research and practice in statistics. It provides a unified and self-contained treatment of linear models for analyzing continuous, binary, count, categorical, survival, and other types of data, and illustrates the methods on applications from different areas.

\*John Nelder passed away in August 2010.



## IAOS Prizes for Young Statisticians

*The field of official statistics offers great challenges and opportunities. To encourage more young statisticians to take an active interest in official statistics, the International Association for Official Statistics (IAOS) sponsors a competition for the best paper in the field of official statistics written by a young statistician. In addition to the monetary prize, the winner will be invited to present the paper at one of the IAOS sessions at the ISI World Statistics Congress (WSC).*

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### 2012 1<sup>st</sup> Prize Winner: **Miguel Ibanez Salinas**



Miguel Ibanez Salinas, Statistical analyst, HEC Montreal/Institute for Statistics, UNESCO Canada, received the prize for his paper "Exploratory Analysis of the Patterns of Missing Values in the UIS Education Database". He holds a MSc in Business Intelligence and a BSc in Industrial Engineering. His current interest is to apply data mining techniques to official statistics in order to obtain a fresh look of national and international patterns.

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### 2012 2<sup>nd</sup> Prize Winners: **Duncan Elliott (primary), Joseph Winton & Robert O'Neill**



J. Winton

Duncan Elliott, Joseph Winton and Robert O'Neill, Office for National Statistics, UK, received the prize for their paper "Elementary Aggregate Indices and Lower Level Substitution Bias". Joseph Winton currently develops and delivers Statistical Training for government. He spent most of his career in National Statistics in Index Number Methodology supporting key outputs such as the CPI and Retail Sales. Robert O'Neill joined the Office for National statistics after completing his PhD in Economics researching multivariate volatility forecasting. Since joining the Office he has worked on Index Number Methodology.

## 2012 3<sup>rd</sup> Prize Winner: **Samuel Spencer**



Samuel Spencer received the prize for his paper "A Case against the Skip Statement".

## IASC Homage Award



The Council of the IASC decided to award **Stanley Azen**, Professor and Co-Director of Biostatistics in the Department of Preventive Medicine at the University of Southern California (USC) School of Medicine, in recognition of his substantial contributions to the development of the Association, the founding of the International

Association of Statistical Computing (IASC) official journal, Computational Statistics and Data Analysis (CSDA) 30 years ago, and his many contributions to computational statistics in support of biomedical research. The homage was paid at the IASC 20<sup>th</sup> International Conference on Computational Statistics in August 2012. The role of Professor Azen has been fundamental for the advancement of computational methods in biomedicine, and the training and mentoring of thousands of students and professionals over the years. In February 1997 he hosted the 2<sup>nd</sup> IASC World Conference on Computational Statistics and Data Analysis in Pasadena, California. In 1981, Dr. Azen was recruited by Elsevier to be the founding Editor and Editor-in-Chief of CSDA. In 1991, CSDA became the official journal of the IASC. CSDA has grown greatly over the years with the additional creativity of his Co-Editors, Dr. Erricos Kontoghiorghes and Dr. Jae C. Lee, as well as the excellent international assembly of Associate Editors.

## **IASE ISLP Best Cooperative Project Award in Statistical Literacy**

*The award is given every two years in recognition of outstanding, innovative, and influential statistical literacy projects that affect a broad segment of the general public and are fruit of the cooperation of different types of institutions (national statistical offices, schools, universities, statistical societies, media, libraries etc).*

*Among the characteristics a project should have to be eligible are:*

- Be ongoing and have the potential to remain so in the future as well as be funded (or supported, if the work is completely volunteer).*
- Access to the project resources and membership in the project should be free to all.*
- It should educate on concepts of statistical theory and data analysis, their use in the development of information about countries and societies, and their application in a broad spectrum of disciplines and areas of society, with concern towards modern data handling, experimentation, and graphical methods.*
- Have contents that are pedagogically sound for a general audience (adults and young, media and statisticians, teachers and students, social and natural sciences).*
- Involve two or more institutions that would usually not work in cooperation.*
- Have international outreach and make creative use of available resources.*

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The 2013 Winner will be announced at the ISI & ISI Associations' Awards Ceremony.



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## IASE ISLP Poster Competition Awards



*The goal of the International Statistical Literacy Poster Competition (ISLP) is to increase awareness of statistics among students and teachers throughout the world, to promote statistical literacy resources and to bring together parties interested in statistical literacy in each country. The Poster Competition is open*

*to teams of 2-3 students in two age divisions: students born in 1997 or younger, and students born in 1994 or younger. Posters must be the original design and creation of students, but are submitted by teachers to country coordinators. Posters may be about any topic students choose within the general theme of Agriculture. Data used may be collected by students or previously published by someone else. The posters are first judged within their countries, and the posters of country winners are then uploaded by the country coordinators for judging by the ISLP international panel. This year over 7000 posters from at least 29 countries have been entered.*

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The 2013 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> prize winners in each age division will be announced at the ISI & ISI Associations' Awards Ceremony.

## IASS Cochran-Hansen Prize

*In celebration of its 25th anniversary in 1999, International Association of Survey Statisticians (IASS) established the Cochran-Hansen Prize to be awarded every two years for the best paper on survey research methods. Participation in the competition for the Prize is open to young statisticians from developing or transitional countries. The winner of the Prize will be invited to present his/her paper at the World Statistics Congress of the ISI.*

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## 2013 Award Winner: **Emilio López Escobar**



Dr. Emilio L. Escobar, Mexico, has worked at the Statistics Department of the Mexico's Autonomous Institute of Technology (ITAM) since 2012. He undertook his PhD in Social Statistics at the University of Southampton, and won the IASS Cochran-Hansen prize for his paper proposing a replication variance estimator for unequal probability large-entropy sampling designs.

## ISBIS Young Statistician Award for the Best Paper



The winner of the 2012 ISBIS award for best paper by a young statistician was **Yili Hong**, Assistant Professor at the Department of Statistics, Virginia Tech, USA. The award was presented at the biennial ISBIS symposium in Bangkok, Thailand, in June 2012. Dr. Hong received a cash prize of US\$1,000. The award has been sponsored by the American Statistical Association and the US National Institute of Statistical Sciences the last two times. The other finalists for the award were:

**Cha-Chi Fan**, US Energy Information Administration, Washington DC, USA;

**Carolina García-Matos**, Universidad Politécnica de Madrid, Madrid, Spain;

**Nuttanan Wichitaksorn**, University of Sydney Business School, Sydney, Australia.



*ISBIS President-Elect Vincenzo Esposito Vinzi awarding certificates to three finalists.*

## **ISBIS Best $\gamma$ -BIS Poster Awards**

Two awards were given to recognize the best posters at the Joint Meeting of  $\gamma$ -BIS and  $\gamma$ SPE, Caparica, Lisbon, Portugal, July 23–26, 2012. The winning posters and presenters were:

**Shirin Shahriari:** "High-Dimensional Regression: A Simulation Study";

**Marta Ferreira:** "Nonparametric Estimation of the Tail-Dependence Coefficient".

Each winner received a certificate and cash prize of 250 Euros.



## **TIES Abdel El-Shaarawi Young Investigator Award**

*This annual award was established in 2001 in the name of Professor Abdel El-Shaarawi, the first President of The International Environmetrics Society (TIES), for his outstanding contributions and dedication to TIES. Prof. El-Shaarawi was initiator and organizer of the first TIES conference held in Cairo, Egypt, in 1989. He has been actively involved in establishing TIES as stable and well recognized society.*

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### **2013 Award Winner: Petra Kuhnert**



Bayesian hierarchical modelling, and non-parametric Research Statistician Petra Kuhnert, CSIRO Mathematics, Informatics and Statistics, Adelaide, Australia, was given the award for the significant interdisciplinary collaboration and impact, the promotion and development of cutting edge statistical methods in the environmental sciences, particularly in water quality, fisheries, and ecological research, and strong contributions to expert elicitation, regression. Petra is a research statistician in the Environmental and Agricultural Informatics Program within CSIRO Mathematics, Informatics and Statistics and works on a wide range of risk, marine and aquatic ecosystem problems. She has a PhD in applied statistics, with interests in incorporating uncertainty into deterministic models; non-parametric methods for the analysis of fish diet data to understand trophic interactions and feeding relationships between predators under climate change scenarios; elicitation practices with experts on risk related issues; and the translation and synthesis of expert opinion into priors to inform Bayesian models. More recently Petra has been developing Bayesian Hierarchical Models for integrating measurements with process models for improved prediction and understanding of catchment pollutant loads and their sources entering into the Great Barrier Reef lagoon in Australia.

## **World Bank Fund**

*The World Bank Fund (WBF) is for developing country residents who aim to actively participate in the scientific programme of the ISI WSC. The objective of the WBF is to improve the capacity of statistical officers and academics in developing countries providing them with statistical knowledge to develop statistical systems through the participation in international conferences and workshops.*

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The following individuals received funding for participation in the 59<sup>th</sup> ISI WSC in Hong Kong:

Alem Shiferaw, Yegnanew (Ethiopia)  
Alves, Patrick Franco (Brazil)  
Ceyhan, Elvan (Turkey)  
Dawodu, Omotola (Nigeria)  
Dongmo Tejiogni, Eric (Cameroon)  
Farouk, Ssekisaka (Uganda)  
García León, Teodoro R. (Venezuela)  
Hoque, Rashedul (Bangladesh)  
Howlader, Tamanna (South Africa)  
Kamgarsangari, Saeideh (Iran)  
Khan, Hasinur Rahaman (Bangladesh)  
Mosammam, Ali Mohammadian (Iran)  
Nedeljkovic, Milan (Serbia)  
Nnadozie, Remigius Chidozie (South Africa)  
Ntsafack, Nguimfack (Cameroon)  
Raqab, Mohammad Z. (Jordan)  
Shafiqur Rahman, Mohammad (Bangladesh)  
Sunusi, Nurtiti (Indonesia)  
Tesfa, Mulugeta (Ethiopia)  
Van Niekerk, Janet (South Africa)



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## **Wakimoto Memorial Fund**

*The fund is named after late Professor Wakimoto Kazumasa (1936-1993) who was an active member of the ISI. In 2013, the fund supported young statisticians from East Asia to attend the ISI WSC in Hong Kong.*

The following individuals received funding for participation in the 59<sup>th</sup> ISI WSC in Hong Kong:

Aazizi, Soufiane (Morocco)  
ElSarawy, Mahmoud (Egypt)  
Farouk Embareka (Egypt)  
Li, Hua (Singapore)  
Lim, Kyungduk (South Korea)  
Zewdie, Samuel Abera (Ethiopia)

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## **African Development Bank Fund**

*The fund is for ISI WSC participants who reside in an African country and have African nationality.*

The following individuals received funding for participation in the 59<sup>th</sup> ISI WSC in Hong Kong:

Alima Ndongo, Christine Ernestine (Cameroon)  
Alognon, Amakoé Délali (Togo)  
Bitew, Denekew (Ethiopia)  
Gichohi, Beatrice Wanjiku (Kenya)

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## **Statistics South Africa Fund**

*The fund is for ISI WSC participants who reside in an African country, have African nationality, and are born on or after 1<sup>st</sup> of January 1983.*

The following individuals received funding for participation in the 59<sup>th</sup> ISI WSC in Hong Kong:

Alia, Didier Y. (Benin)  
Balima, Mahamadi (Burkinabè)  
Dake, Fidelia A. (Ghana)  
Ngamou Tchuana, William (Cameroon)

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