International Statistical Review – April 2015 issue

The *International Statistical Review*, now in its 82nd year, has long had the goal of being a journal for *all* statisticians. The articles in this first 2015 issue epitomize the scope of the journal and its rich diversity of papers. Starting with the interview of a former President of the International Statistical Institute (ISI) and the biography of a prominent early ISI member, it features several timely and insightful surveys (two in theory and methodology and two in interdisciplinary applications). These articles should be of interest and accessible to all statisticians.

A Conversation with Jean-Louis Bodin by Gilbert Saporta

Jean-Louis Bodin, former President of the International Statistical Institute, has had a distinguished career as an official statistician in the French and European statistical systems. He has dedicated the last 20 years of his career to international relations in official statistics and cooperation for strengthening statistical capacities of transition and developing countries. He was one of the main persons behind the UN Resolution on Fundamental Principles for Official Statistics and the African Statistical Charter and created AFRISTAT, the Economic and Statistical Observatory of Sub-Saharan African countries.

Ladislaus von Bortkiewicz—Statistician, Economist and a European Intellectual by Wolfgang Härdle and Annette Vogt

Ladislaus von Bortkiewicz (1868–1931) was active in theoretical economics, stochastics, mathematical statistics and radiology—today, we would call him a cross-disciplinary scientist. He also was a true European intellectual, with a career path from St. Petersburg to Straßburg via Göttingen, and finally the Berliner Universität, now Humboldt-Universität zu Berlin. He is known for the precise calibration of insurance claims, applying the—at that time hardly known—Poisson distribution to Prussian horse kicks and child suicide data. He proposed a simple solution to the Marxian transformation problem and wrote numerous articles and books on the mathematical treatment of statistical data. This article sketches his life and work and points out his prominent influence on today's statistical thinking.

Varying Coefficient Regression Models: A Review and New Developments by Byeong Park, Enno Mammen, Young Lee and Eun Ryung Lee
Discussions by: Jianqing Fan and Wenyang Zhang, Toshio Honda, Jianhua Huang and Ya Su
Rejoinder by the authors

Varying coefficient regression models are known to be very useful tools for analysing the relation between a response and a group of covariates. Their structure and interpretability are similar to those for the traditional linear regression model, but they are more flexible because of the infinite dimensionality of the corresponding parameter spaces. This paper gives an overview on the existing methodological and theoretical developments for varying coefficient models and discusses their extensions with some new developments.

Statistical Approaches for Nonparametric Frontier Models: A Guided Tour by Léopold Simar and Paul Wilson

There has been considerable work on the theory of production and analysis of efficiency since the pioneering work of Koopmans (1951) and Debreu (1951). The statistical problem can be viewed as the problem of estimating the support of a multivariate random variable, subject to some shape constraints, in multiple dimensions. This *Guided Tour* reviews the development of various nonparametric approaches and describes remaining challenges as well as open issues.

Statistical Issues in Assessing Forensic Evidence by Karen Kafadar

This is a review paper on statistical aspects of forensic science with particular reference to the design of studies to evaluate inferences from forensic evidence. It discusses sources of variability and the statistical principles involved in the quantification of, and uncertainty in, estimated probabilities of error. By contrasting the design of a successful community clinical trial with two previous fingerprint studies and with bullet lead studies, the article emphasizes the need for reduced subjectivity, the types of measurements on physical evidence that can lead to more accurate and consistent decisions, and the importance of carefully designed studies in the evaluation of forensic evidence.

Applications of Statistics in the Field of General Insurance: An Overview by Yves Grize

This is an expository paper on applications of statistics in the field of general insurance, also called non-life insurance. Unlike life insurance where advanced statistical techniques have long been part of financial mathematics and actuarial applications, their use is relatively recent in non-life insurance. The aim of the paper is to convince the readers that non-life insurance is not only an exciting ground to apply existing modern statistical tools but also a fertile environment for new and challenging statistical developments. Fundamental understanding of data-related issues is essential to the insurance business. Also, a better appreciation of the field of general insurance by statisticians will promote fruitful exchanges between actuaries and statisticians, thereby helping to bring actuarial and statistical professional societies closer to each other.