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Multithemes

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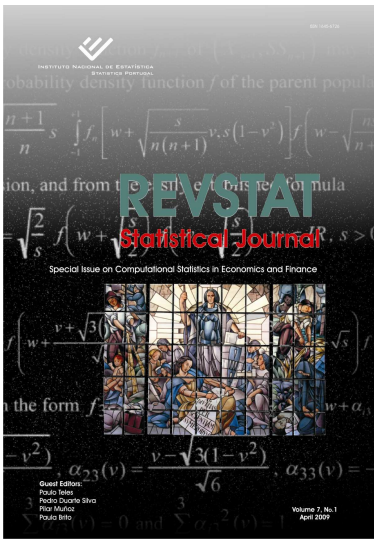

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This Volume of **REVSTAT: Volume 8, No. 1 - June 2010**, includes four articles. Their abstracts are presented below:

ON ESTIMATION FOLLOWING SUBSET SELECTION FROM TRUNCATED POISSON DISTRIBUTIONS UNDER STEIN LOSS FUNCTION
Authors: *A. Shanubhogue* and *Riyadh R. Al-Mosawi*

In this paper, we consider the problem of estimating the parameters of a subset selected from p ($p \geq 2$) left-truncated Poisson distributions under Stein loss function. Two problems of estimations are considered; average worth and simultaneous estimation. For the average worth, the natural estimator is shown to be positively biased with respect to Stein loss function and the Unique Minimum Risk Unbiased Estimator $UMRUE$ is obtained. For the simultaneous estimation problem, we have shown that the natural estimator is positively biased with respect to Stein loss function and the $UMRUE$ is obtained. The inadmissibility of the natural estimator of the simultaneous estimation is also proved and a class of dominating estimators is obtained. Monte Carlo simulation is undertaken to compute the biases and risks of the two problems of estimation.

A FOLDING METHOD FOR EXTREME QUANTILES ESTIMATION
Authors: *Armelle Guillou, Philippe Naveau* and *Alexandre You*

In order to estimate extreme quantiles from independent and identically distributed random variables, we propose and study a novel folding procedure that improves quantile estimates obtained from the classical Peaks-Over-Threshold method (POT) used in Extreme Value Theory. The idea behind the folding approach is to connect the part of a distribution above a given threshold with the one below it. A simplified version of this approach was studied by You *et al.* (2010). In this paper, an extension based on two thresholds is proposed to better combine the folding scheme with the POT approach. Simulations indicate that this new strategy leads to improved extreme quantiles estimates for finite samples. Asymptotic normality of the folded POT estimators is also derived.

OPTIMAL ALARM SYSTEMS FOR FIAPARCH PROCESSES
Authors: *Conceição Costa, Manuel G. Scotto* and *Isabel Pereira*

In this work, an optimal alarm system is developed to predict whether a financial time series modeled via Fractionally Integrated Asymmetric Power ARCH (FIAPARCH) models, up/downcrosses some particular level and give an alarm whenever this crossing is predicted. The paper presents classical and Bayesian methodology for producing optimal alarm systems. Both methodologies are illustrated and their performance compared through a simulation study. The work finishes with an empirical application to a set of data concerning daily returns of the São Paulo Stock Market.

AN OVERVIEW OF LINEAR STRUCTURAL MODELS IN ERRORS IN VARIABLES REGRESSION
Author: Jonathan Gillard

This paper aims to overview the numerous approaches that have been developed to estimate the parameters of the linear structural model. The linear structural model is an example of an errors in variables model, or measurement error model that has wide practical use. This paper brings together key concepts from a scattered literature to give an accessible account of existing work on this particular errors in variables model.

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