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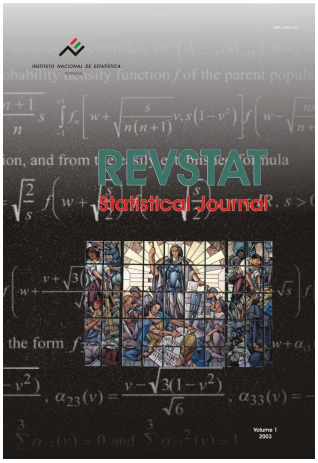

In 2003 the National Statistical Institute launched the scientific statistical journal **REVSTAT-STATISTICAL JOURNAL**, published in English two times a year, with a prestigious international Editorial Board, which came to substitute the *Revista de Estatística* [Statistical Review], published in Portuguese between 1996 and 2002.

The aim of the Editorial Board of **REVSTAT** is to publish articles of high scientific content, developing innovative statistical scientific methods and introducing original research, grounded in substantive problems, covering all branches of Probability and Statistics. Surveys of important areas of research in the field are also welcome.

REVSTAT hopes to become a place where scientists may feel proud of publishing their research results changing the character of the previous *Revista de Estatística* from a national to an international scientific journal.

This Volume of **REVSTAT: Volume 5, No. 3 - November 2007** includes an obituary and four articles. Their abstracts are presented below:

OBITUARY: RADU THEODORESCU, 1933-2007

Autor: *Dinis Pestana*.

EXTREMES FOR SOLUTIONS TO STOCHASTIC DIFFERENCE EQUATIONS WITH REGULARLY VARYING TAILS

Author: *Manuel G. Scotto.*

The main purpose of this paper is to look at the extremal properties of

$$X_k = \sum_{j=1}^{\infty} \left(\prod_{s=1}^{j-1} A_{k-s} \right) B_{k-j}, \qquad k \in \mathbf{Z},$$

where $(A_k, B_k)_{k \in \mathbf{Z}}$ is a periodic sequence of independent $\mathbf{R}_+^2$-valued random pairs. The so-called complete convergence theorem we prove enable us to give in detail the weak limiting behavior of various functional of the underlying process including the asymptotic distribution of upper and lower order statistics. In particular, we investigate the limiting distribution of the maximum and its corresponding extremal index. An application to a particular class of bilinear processes is included. These results generalize the ones obtained for the stationary case.

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LARGE DEVIATIONS AND BERRY–ESSEEN INEQUALITIES FOR ESTIMATORS IN NONLINEAR NONHOMOGENEOUS DIFFUSIONS

Author: *Jaya P.N. Bishwal*.

Bounds on the large deviations probability of the maximum likelihood estimator and regular Bayes estimators, and Berry–Esseen type bound for the suitably normalized maximum likelihood estimator of a parameter appearing nonlinearly in the nonhomogeneous drift coefficient of Itô stochastic differential equation are obtained under some regularity conditions. Berry–Esseen results are illustrated for nonhomogeneous Ornstein–Uhlebeck process.

MEASURE OF DEPARTURE FROM EXTENDED MARGINAL HOMOGENEITY FOR SQUARE CONTINGENCY TABLES WITH ORDERED CATEGORIES

Authors: *Kouji Yamamoto, Yukari Furuya* e *Sadao Tomizawa*.

For the analysis of square contingency tables, Tomizawa and Makii (2001), and Tomizawa, Miyamoto and Ashihara (2003) considered the measures to represent the degree of departure from marginal homogeneity (MH). Tomizawa (1984) considered an extended marginal homogeneity (EMH) model for square tables with ordered categories. This paper proposes a measure to represent the degree of departure from EMH. The measure proposed is expressed by using the Cressie and Read's (1984) power-divergence or Patil and Taillie's (1982) diversity index. The measure would be useful for comparing the degree of departure from EMH in several tables. Examples are given.

A NOTE ON SECOND ORDER CONDITIONS IN EXTREME VALUE THEORY: LINKING GENERAL AND HEAVY TAIL CONDITIONS

Authors: *M. Isabel Fraga Alves, M. Ivette Gomes, Laurens de Haan* e *Cláudia Neves*.

Second order conditions ruling the rate of convergence in any first order condition involving regular variation and assuring a unified extreme value limiting distribution function for the sequence of maximum values, linearly normalized, have appeared in several contexts whenever researchers are working either with a general tail, i.e., $\gamma \in \mathbf{R}$, or with heavy tails, with an extreme value index $\gamma > 0$. In this paper we shall clarify the link between the second order parameters, say ρ and $\overline{\rho}$ that have appeared in the two above mentioned set-ups, i.e., for a general tail and for heavy tails, respectively. We illustrate the theory with some examples and, for heavy tails, we provide a link with a third order framework.

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