

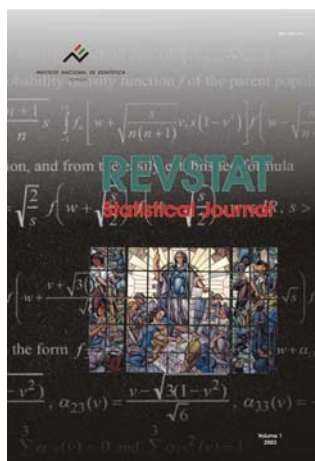
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In 2003 the National Statistical Institute launched the scientific statistical journal **REVSTAT-STATISTICAL JOURNAL**, published in English two times a year, with a prestigious international Editorial Board, which came to substitute the *Revista de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

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This Volume of **REVSTAT: Volume 4, No. 3 - November 2006** includes fourth articles. Their abstracts are presented below:

LIMIT DISTRIBUTION FOR THE WEIGHTED RANK CORRELATION COEFFICIENT, r_W

Authors: Joaquim F. Pinto da Costa and Luís A.C. Roque

A weighted rank correlation coefficient, inspired by Spearman's rank correlation coefficient, has been proposed recently by Pinto da Costa & Soares [Pinto da Costa, J. F. and Soares, C., 2005. A weighted rank measure of correlation, *Australian & New Zealand Journal of Statistics*, vol. 47 (4), 515-529]. Unlike Spearman's coefficient, which treats all ranks equally, r_W weights the distance between two ranks using a linear function of those ranks, giving more importance to top ranks than lower ones. In this work we prove that r_W has a gaussian limit distribution, using the methodology employed in [Ruymgart, F. H., Shorack G. R., Van Zwet, W. R., 1972. Asymptotic normality of nonparametric tests for independence. *The Annals of Mathematical Statistics*, vol. 43, 1122-1135].

COMBINING METHODS IN SUPERVISED CLASSIFICATION: A COMPARATIVE STUDY ON DISCRETE AND CONTINUOUS PROBLEMS

Authors: *Isabel Brito, Gilles Celeux and Ana Sousa Ferreira*

Often in discriminant analysis several models are estimated but based on some validation criterion, a single model is selected. In the purpose of taking profit from several potential models, *classification rules combining models* are considered in this article. More precisely two ways of combining models are considered: a serial combining method and a hierarchical combining method. Serial combining is a convex linear combination of a finite number of models. Hierarchical combining method leads to nested models structured in a binary tree. In this paper, several combining methods resorting from both points of view are presented and their performances are assessed on discrete and continuous classification problems.

PEAKS OVER RANDOM THRESHOLD METHODOLOGY FOR TAIL INDEX AND HIGH QUANTILE ESTIMATION

Authors: *Paulo Araújo Santos, Isabel Fraga Alves and Maria Ivette Gomes*

In this paper we present a class of semi-parametric high quantile estimators which enjoy a desirable property in the presence of linear transformations of the data. Such a feature is in accordance with the empirical counterpart of the theoretical linearity of a quantile $\chi_p: \chi_p(\delta X + \lambda) = \delta \chi_p(X) + \lambda$, for any real λ and positive δ . This class of estimators is based on the sample of excesses over a random threshold, originating what we denominate *PORT (Peaks Over Random Threshold)* methodology. We prove consistency and asymptotic normality of two high quantile estimators in this class, associated with the *PORT*-estimators for the tail index. The exact performance of the new tail index and quantile *PORT*-estimators is compared with the original semi-parametric estimators, through a simulation study.

EXTREMES OF PERIODIC INTEGER-VALUED SEQUENCES WITH EXPONENTIAL TYPE TAILS

Authors: *Andreia Hall and Manuel G. Scotto*

This paper aims to analyze the extremal properties of periodic integer-valued sequences with marginal distribution belonging to a particular class defined by Anderson [1970. J. Appl. Probab. 7, 99–113] where the tail decays exponentially. An expression for calculating the extremal index of sequences satisfying certain local conditions, similar to those introduced by Chernick et al. [1991. Adv. Appl. Prob. 6, 711–731] is obtained. An application to infinite moving averages and max-autoregressive sequences is included. These results generalize the ones obtained for the stationary case.