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**Statistical coupling between winter cold days / warm nights in Europe and the underlying atmospheric flow**

The assessment of the dynamical mechanisms that can trigger temperature extremes is of utmost relevance due to their impacts on environment, society and economy. Towards this aim, two temperature extremes, TX10p (cold days) and TN90p (warm nights), are computed for all wintersin the period 1961-2010 over Europe. The main features of the statistical distributions of the absolute minimum (maximum) of the maximum (minimum) temperature TXn (TNx) are also analyzed for the winter months. Results give ...

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**Transversal analysis in matched series of studies**

In STATIS, relations between studies are throught to be captured by the Hilbert-Schmidt product of matrices associated with a series of studies. [2] showed how to obtain a geometrical representations of the studies using the eigenvalues and eigenvectors of the matrix S. In this paper we present a model and a corresponding transversal analysis. An application to elections in Portugal is presented.

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**Models of symmetric stochastic matrices**

AIP Conf. Proc. 1479, pp. 1666-1669; doi:[http://dx.doi.org/10.1063/1.4756489](http://link.aip.org/link/doi/10.1063/1.4756489) (4 pages)

NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2012: International Conference of Numerical Analysis and Applied Mathematics

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Location: Kos, Greece

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In this paper we present models for symmetric stochastic matrices showing how to adjust and validate them. We discuss the validation in the general case.

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