

Linear models for the joint segmentation of multiple series

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The main objective of the segmentation is to detect abrupt change-points in the distribution of a signal. Such problems occur in many areas, for example in genomics for the detection of chromosomal alterations, in meteorology for the detection of instrumental changes in temperature series. Segmentation raises interesting issues in terms of both statistical modelling, model selection and algorithmic. We will make a brief overview of these issues and present several solutions that have been recently proposed for the analysis of one series. However, several series are now available and the joint analysis of these series allows us to account for biases correction and correlation between series. We will present some linear models that we propose for this joint segmentation.