

Detection of Trend Changes and Outliers from Multidimensional Time Series: applications to ground deformation in the Virunga Volcanic Province.

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Trend changes and outliers detections are used to identify anomalous behaviour in time series. In this work we present a unifying framework for dealing with both kind of detections. The method is based on the comparison of several different detection techniques. The effectiveness of this preliminary methodology is demonstrated by analyzing an extensive amount of multidimensional time series of ground deformation in the Virunga Volcanic Province, DR Congo.