



Non-uniform scaling features in magnetotelluric signals and possible correlation with seismicity

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The scaling behaviour of the time dynamics of magnetotelluric signals (MT) measured from July to November 2007 at Tramutola station (southern Italy) were analyzed. The 6.25 Hz data were used for the analysis performed applying the detrended fluctuation analysis (DFA). This method is a powerful tool to detect and investigate time-scaling behavior in nonstationary signals. Deviations from uniform power-law scaling were identified and quantified by means of an instability index. The results point out to significantly high instability index in MT data possibly correlated with the seismic activity of the investigated area.