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Quantifying intra-annual persistent behavior in SPOT-VEGETATION multispectral data for vegetation covers of Southern Italy

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Multitemporal series of satellite SPOT-VEGETATION spectral channels (blue, green, near-infrared, short-wave infrared) from 1998 to 2005 were exploited for studying persistence in Mediterranean ecosystems of sardinia (southern Italy). We used the Detrended Fluctuation Analysis (DFA), which permits the detection of scaling persistent properties in nonstationary signal fluctuations. Our findings point out that: i)the investigated vegetation cover is governed by persistent mechanisms; 2) the scaling of the blue spectral channel, which mainly informs about the residual atmospheric contaminations, is characterized by a significant larger instability.