



## **Local response of precipitation variability in Romania due to Mediterranean cyclones**

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The Mediterranean cyclones provide permanent heat and humidity transfer between the surface the Mediterranean Sea and the surrounding regions. Our study aims to explain the role of driving mechanisms of the Mediterranean lows on the precipitation variability over the Romanian territory. In addition to large-scale circulation changes, local effects, such as sea-land contrast, and/or local orography provide extra features in the precipitation variability patterns. For the time interval 1979-2005, we used daily and monthly precipitation amounts from 93 Romanian stations, sea level pressure over the Atlantic-European area and the sea surface temperature (SST) anomalies over the Mediterranean and Black Seas to identify the spatial and temporal features of precipitation variability caused by the anomalous Mediterranean-cyclone activity.