



On the use of the SWVI in the operative chain of the early warning

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The paper proposes the Soil Wetness Variation Index (SWVI), as a synthetic parameter for the soil water content based on satellite observation, to recognise and identify potential critical conditions for flash flood events.

Such parameter allows strong interoperability and becomes employable in the definition of forecasting models for operative support during the early warning and warning stage in the prediction chain.

Using the general Robust AVHRR Techniques (RAT), the well-known disadvantages of the satellite techniques for hydrologic aims have been sensitively reduced.

The response of the SWVI is analysed in the space-time domain through a sensitivity analysis by comparing the index values with the precipitation data available from a rain gauge network. The analyses have been performed at local scale assuming the Basilicata region as study area.