



AVHotRR version 2.0. Enhanced routine for near-real time monitoring of active volcanoes using IR satellite data.

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The AVHotRR routine operates since 2006 to process satellite data for monitoring active volcanoes in the Mediterranean area. AVHotRR is a continually evolving program. It needs to adapt both to the availability of new incoming data and to the variability of volcanic phenomena. Though originally developed to work with Advanced Very High Resolution Radiometer (AVHRR) data, AVHotRR has been improved over the years to adapt to other sensors. Currently implemented version allows to integrate results from different dataset in order to better constrain the detection of volcanic hot-spots. In particular, the high temporal resolution of the SEVIRI instrument aboard MSG provides a key to reduce false positives in AVHRR and Moderate Resolution Imaging Spectroradiometer MODIS images.

A new detection method based on the wavelet transform of SEVIRI data is proposed. Results from the application of AVHotRR to a dataset of AVHRR and SEVIRI images from Mt Etna, Italy, are presented and discussed to advantages and limitations of the algorithm.