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# A case of severe flood over Albania: a rainfall analysis from a satellite perspective

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Abstract. This paper presents results of daily rainfall estimates for the flood event in Albania occurred during the end of September 2002 (from the 21 until the 23). Estimated precipitations based on Meteosat-7 data and computed using various techniques, are compared with surface based observations. The two techniques, developed for convective clouds, were employed to screen the Albanian Flood. On one hand a single Infrared band technique known as Auto-estimator and on the other hand a threechannel Convective Rainfall Rate technique known as CRR. Secondly, for both methods, a number of corrections, such as, moisture, cloud growth rate, cloud top temperature gradient, parallax and orographic corrections were, also, performed and tested during the flood case. Preliminary results show that auto-estimator over-measure significantly daily rainfall with respect to the observed while CRR gives much closer rain quantities. The Auto-estimator power law curve was adjusted to the specific conditions using all the available rain rate gauge measurements. Satellite daily rainfall estimated by the two methods, corrected and calibrated were finally evaluated using the Albanian rain gauge network as ground true.

■ Full Article in PDF (PDF, 472 KB)

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