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## Numerical study of a banded precipitation event over Italy

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**Abstract.** Satellite images of 30 October 2008 show the development over north-central Italy of rainbands and multiple waves during a strong south-westerly wind episode associated with a deepening synoptic trough and cold front passage. The event was studied by means of the ISAC model chain constituted of the hydrostatic model BOLAM and the nested non-hydrostatic model MOLOCH at 1.1 km resolution. Diagnostics of model output was performed to reveal the physical origin of the dynamical features and precipitation field as simulated. Based on our results we propose a theoretical framework in which symmetric instability underlies some of the observed precipitation patterns.

Full Article in PDF (PDF, 11230 KB)

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