High-resolution simulation of a banded precipitation event over Italy

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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 kilometer resolution.

Diagnostics of model output were performed to reveal characteristic features of symmetric instability.