



The impact of meteorological conditions on fire activity in Mediterranean Europe

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Mediterranean regions are some of the most affected by wildfires and information about fire activity, as provided by the SEVIRI instrument on-board Meteosat-8, appears especially appealing to monitor and investigate fire activity.

An analysis is performed on the spatial distribution of fire events during the period of July and August 2007-2009. An assessment of the role of meteorological conditions on large fire events is also carried out by studying two extreme events, respectively on July 24-25 and August 22-27, 2007.

Structural similarities were found between the two episodes and a conceptual model is proposed for meteorological conditions strongly favouring the occurrence of severe wildfire episodes in Italy and the Balkan Peninsula.

The importance of both short- and long-term atmospheric conditions on meteorological fire risk is also put into evidence by analysing the fields of three weather-based indices, namely the Build-Up Index, the Initial Spread Index and the Fire Weather Index that are part of the Canadian Forest Fire Weather Index System.