

## ABSTRACT

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## **CLIMATE CHANGE LEADS TO MORE FREQUENT FIRES IN A MEDITERRANEAN ENVIRONMENT**

Marco Turco (1), Maria-Carmen Llasat (2), Jost von Hardenberg (1), Antonello Provenzale (1)

Contact: [m.turco@isac.cnr.it](mailto:m.turco@isac.cnr.it)

- 1) ISAC-CNR, Torino, Italy
- 2) University of Barcelona, Barcelona, Spain

The analysis of both observed climate and fire data from 1970 to 2007 in a typical Mediterranean environment (i.e., the northeastern Iberian Peninsula) shows that the warming climate forcing alone would have led to a positive trend in the Number of Fires (NF) and a slightly negative trend in the Burned Area (BA). This is in contrast to the common expectation that warming should result in larger fires. In fact, for BA, less favourable conditions for both fine-fuel availability and fuel connectivity counterbalance the increase in fuel flammability. Climate scenarios from the ENSEMBLES Project indicate that warming will continue up to at least 2050, promoting more numerous fires but of similar or slightly smaller extension. These results suggest the necessity for a more intense fire management effort in order to maintain the number of fires at least at the same level as today.