

## ***Interactive comment on “Fire danger rating over Mediterranean Europe based on fire radiative power derived from Meteosat” by Miguel M. Pinto et al.***

### **Anonymous Referee #2**

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The Manuscript entitled “Fire danger rating over Mediterranean Europe based on fire radiative power derived from Meteosat” propose a new method to forecast daily fire danger over the Mediterranean, which combines the historical information of remotely sensed radiative energy released by fires and FWI forecasts. The proposed methodology seems relevant and is thoroughly described. The manuscript is well writtend and will be of interest for the fire community.

My main concern is that, in its current state, the manuscript provides only limited general overview of the issues addressed. I think that he manuscript would gain from more detailed introduction and discussion sections and it would help to reach a broader

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readership. I would appreciate an introduction that provides more information about the methodologies that have been developed so far and the rationale behind the development of such hybrid methods as yours. For instance, the description for the need new estimations of fire danger (Page 2, 18-20) is quite brief Another example is that the description of the fire radiative power derive from remote sensing does not appear until discussion (P20, line 21-26). Similarly, the discussion would gain from a more thorough description of the limits and future developments of this method as well as its comparison with other methods.

#### Specific comments

Page 2 lines 7-9: I am not sure there is a consensus about this assertion, especially in the Mediterranean where recent studies tend to point out towards a drought-limited fire regime.

Page 3 line 9: What is the averaged size of these pixels over the Mediterranean?

P6 line 15-21. I wonder how much does the results of the daily models depend on the estimations of  $P(E/0)$  and  $FWI^*$  that in turn depends on the calibration period This seems particularly the case for  $P(E/0)$  where the calibration period is relatively short. Besides, It might be not relevant but I failed to understand the purpose of using the FWI anomalies instead of the raw FWI values (P4, lines 23-27). I agree that FWI is influenced by numerous factors (topography, distance to the sea...) but there are also large-scale patterns involved in these processes. For instance, a one Standard Deviation from the FWI mean in southern Greece is not equivalent in terms of fire danger to a one standard deviation in northern Spain.

Fig 6 and Fig 8: maybe provide a statistical test to support your conclusions on these figures.

Figure 14: This figure is interesting and relevant for your study but not easy to follow because of the different sources of information provided. Maybe provide more details

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within the figure and subpanels descriptions.

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