

Interactive comment on “Simulating the effects of weather and climate on large wildfires in France” by Renaud Barbero et al.

Anonymous Referee #1

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General Comments:

The paper “Simulating the effects of weather and climate on large wildfires in France” makes a nice approach to model wildfire occurrence in France, using meteorological and fire danger indices. On the overall I think the paper is very well structured and written, so the message is quite clear. The methodology is well described and I don't find major issues regarding the publication of the work. I only have some minor issues, as described below.

Specific Comments:

Regarding Fig.2, a few suggestions: 1) Maybe presenting in each panel the total number of large fires (as presented in Table 3) would help the interpretation and context

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of the plots; 2) Did the authors tried to look at these plots in log scale? (at least for Mediterranean Mountains region); 3) I find some of the statistically significant correlations between the number of large wildfire frequency and Total Burned Area confusing, with just a few cases, and most of them in the 0 class (the North region is a perfect example)

I wonder if there was the possibility of reducing the pool of predictors? By this, I mean looking for redundant/similar predictors amongst each group (Met.variable; Fire-Weather metric; Drought metric). Could it be the case that some of them provide very similar information, and consequently very similar performances for the models? In particular, when bootstrap is lower and more combinations are possible, are the differences in the performance of these large enough to justify that there are no common predictors amongst models chosen for each area? The methodology is OK and well explained, but I wonder, if that was the case (not shown by the authors), wouldn't more “coherent” models in terms of more restricted predictors be more easily interpreted and also more coherent for further usage in other works and other realms?

Besides the prospect of using this scheme for future fire behavior, do the authors think it be usable/adapted on an Operational basis? I would like to see some discussion about this.

Other Comments:

Line 50: Could the authors introduce the meaning of the SAFRAN acronym in the text?

Line 19: “most extreme years”

Line 69: correct the title 2.4.1 “Generalized”

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