

## ***Interactive comment on “Physical parametrisation of fire-spotting for operational fire spread models: response analysis with a model based on the Level Set Method” by Inderpreet Kaur et al.***

**Inderpreet Kaur et al.**

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Dear Referees and Dr. A. Kerkweg,

we thank you very much for carefully reading of our manuscript and your support to our work through your suggestions for its improvement.

Actually, by collecting and following your comments, we can definitively say that the perspectives of our research are now much more focused on the fact that when dealing with applied problems the applied aims should always be the priority. We recognise that before the peer-review process our research was still in an “academic approach” with

C1

the concrete risk of making efforts with no interest to the academic community; as we focused on an applied problem, and with no interest to an applied community. For this reason, we acknowledge your positive and constructive attitude directed to find the potentialities of our work and pushing us to put them into a useful framework.

This change of perspective took us one month and an half more than the standard deadline for re-submission. Hence we really thank also the editor Kato Tomomichi and the editorial support Anna Feist-Polner for allowing and managing such extension.

This change of perspective required also a change in the title, where the names of the considered models are now explicit, and the work by two further co-authors. In particular the first author is changed. In the section “Author contributions” we provide the role of all authors.

In general, the manuscript has been strongly revised and the implementation of our routines for including fire-spotting in the large-scale operational code WRF-Sfire (as required by Referee 2) embodies the main change. We did not include the global sensitivity analysis required by Referee 1, mainly because it was a long work (6 months) done in collaboration with a group at CERFACS, Toulouse, France, and its presentation and discussion needs many pages. Hence, we think that such analysis deserves a separate paper. However, this separate paper is next to submission and we intend to upload it in arxiv.org before the end of August 2018.

In the attached document we include the rebuttal letter for the Referee and, because of the many changes, the PDF files of the revised version with and without marked changes.

Sincerely Yours,

The authors

Please also note the supplement to this comment:

C2

<https://www.geosci-model-dev-discuss.net/gmd-2018-33/gmd-2018-33-AC3-supplement.zip>

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Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2018-33>, 2018.