gmd-2018-33 Submitted on 06 Feb 2018

RandomFront 2.3 A physical parametrisation of fire-spotting for operational fire spread models: Implementation in WRF-Sfire and response analysis with LSFire+ Andrea Trucchia, Vera Egorova, Anton Butenko, Inderpreet Kaur, and Gianni Pagnini

This revised version of the previous paper **Physical parametrisation of fire-spotting for operational fire spread models: response analysis with a model based on the Level Set Method** has important improvements that I value very positively, especially regarding the examples, coupling the RandomFront post-processing scheme with two fire spread models, one based on the level set method, and the other coupled with an atmosphere model.

As in my previous review, again I think that the topic of the paper is well suitable for the journal, and of current interest as wildfires are increasing concerns in the research community in the context of climate change and the new paradigm of wildfires that climate change has causing: sixth generation wildfires.

The organization of the paper is correct. The state of the art included in the introduction is complete and the bibliography used is updated. The improvements in the article are very positive, especially in the examples.

I suggest accepting the publication, with two minors changes:

1- Pag 17, par 20-26: It would be interesting to explain what part of the computational cost corresponds to the post-processing routine. The computational cost of the both models (WRF-Sfire and LSFire++) is detailed, but it is not clear if this includes the RandomFront computational cost or not.

2. Figures 1-3 captions should include an explanation about the meaning of dashed lines, this is explained in the text, but I suggest adding it in the captions too.