Answer to reviewers NHESS article 122 17 January 2022

Dear Editor and Reviewers,

We would like to express our gratitude for the work done from the editor and reviewers for this publication which clearly improved the article.

Best regards, Tomas Artes

Referee #1: Miguel Pinto, miguelotnip@hotmail.com						
Anonymous during peer-review:	Yes		No	No		
Anonymous in acknowledgements of published article:	Yes		No	No		
Recommendation to the editor						
1) Scientific significance		Excellen	Good	Fair	Poor	
Does the manuscript represent a		t	0004			
substantial contribution to the						
understanding of natural hazards and						
their consequences (new concepts, ideas,						
methods, or data)?	•					
2) Scientific quality		Excellen	Good	Fair	Poor	
Are the scientific and/or technical		t				
approaches and the applied methods						
valid? Are the results discussed in an						
appropriate and balanced way (clarity of						
concepts and discussion, cons						
related work, including appropriate						
references)?			T			
3) Presentation quality		Excellen	Good	Fair	Poor	
Are the scientific data, results and		t				
conclusions presented in a clear, concise,						
and well-structured way (number and						
quality of figures/tables, appropriate use						
of technical and English language,						
simplicity of the language)?						
For final publication, the manuscript should be						
accepted as is.						
accepted subject to technical corrections.						
accepted subject to minor revisions.						
reconsidered after major revisions :						
rejected.						

Were a revised manuscript to be sent for another round of reviews: I would be willing to review the revised manuscript. I would not be willing to review the revised manuscript. Suggestions for revision or reasons for rejection (will be published if the paper is accepted for final publication) The authors answered all my comments and, in particular, added to the text the information regarding the computation of CHaines that was missing in the previous version of the manuscript and confirmed that data normalization was used for the MLP inputs. This information clears some doubt I had regarding these results in the previous version of the manuscript. Regarding my comment about the probabilistic approach, I agree with the authors that a refined dataset will allow for a better analysis, and I understand that such work can be a subject for future work. Despite the noisy dataset, the current results suggest that the FWI + EFBI provides a significant advantage over the FWI + CHaines for the discrimination between the two classes of fire size. This is a relevant result to the fire community and I expect it will be a good base for future research. A few corrections: L179 – "also CHaines index is also" I suggest removing the first "also". L255 – "have" and "three cases" L332 – EBI? L339, L353 – These accuracy values are not consistent with the ones in the results section. **Authors: Changes applied.** Anonymous Referee #2 Anonymous during peer-Yes No review: Anonymous in acknowledgements of Yes No published article: Recommendation to the editor 1) Scientific significance Poor Excellen Good Fair Does the manuscript represent a substantial contribution to the understanding of natural hazards and their consequences (new concepts, ideas, methods, or data)? 2) Scientific quality Good Excellen Fair Poor Are the scientific and/or technical approaches and the applied methods valid? Are the results discussed in an appropriate and balanced way (clarity of concepts and discussion, consideration of related work, including appropriate references)? 3) Presentation quality Excellen Good Fair Poor

Are the scientific data, results and

conclusions presented in a clear, concise,

and well-structured way (number and quality of figures/tables, appropriate use of technical and English language, simplicity of the language)?

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Were a revised manuscript to be sent for another round of reviews:

I would be willing to review the revised manuscript.

I would not be willing to review the revised manuscript.

Suggestions for revision or reasons for rejection (will be published if the paper is accepted for final publication)

The authors have addressed all my concerns. The authors may wish to fine tune some of the English appearing in the revised text.

Authors: The article has been proofread-ed and corrections have been applied to improve the English.