

Interactive comment on “Approach for combining faults and area sources in seismic hazard assessment: Application in southeastern Spain” by Alicia Rivas-Medina et al.

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Received and published: 20 June 2018

Thank you for your time and the remarks on the paper. We acknowledge that your comments significantly improve the original manuscript. Below we provide response to your points with more detail. SPECIFIC COMMENTS: Abstract - Lines 9-11 page 1: The text has been modified Lines 15-17 pag 1: This is removed from the abstract and the text changed Line 19 page 1 and 1 Introduction: References have been included Line 28 page 1: It has been added to the text Line 2 page 2: References have been included Line 3 page 2: References have been included Line 22 page 2: References have been included Lines 28-32 page 1: We agree on that hose limitations

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are inherent to the probabilistic method. With this paragraph, we just wanted to clarify that we do not try to solve them, but only to take them into account in the proposed approach. The maximum magnitudes associated to each fault are calculated, and their occurrence rates are estimated using a GR recurrence model. This model, considering Mmax of faults, is included in seismic hazard calculations. The MmaxC value is only considered for the distribution of seismic potential, but not for the input recurrence model incorporated in the hazard model. 2 Source hybrid approach (zones & faults) for hazard estimation. We consider that it is better to focus the paper in the specific features of the proposed approach. The manuscript is structured accordingly focusing on the description of the source hybrid approach. However, we include the reference to the classical method included in this study: IGN-UPM Working Group (2013). Lines 10-16 page 3: The text has been modified Line 20 page 4: The text is modified Line 22 page 4: The text is modified Line 18 page 5: This issue is included in the Discussion Line 14 pag 7: A reference to QAFI is included, as well as an annex with fault information Line 9 page 8: Details on how seismic sources are used in the CM can be found in IGN-UPM Working Group (2013) (reference included in the paper) We have not provided further details on this paper because it is not the objective of this paper. Line 6 page10: References are included References - New references are included FIGURES - Figure 2: The figure is explained with more detail TECHNICAL CORRECTIONS: Line 17 page 1: The text is modified

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2018-28/nhess-2018-28-AC5-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-28>, 2018.

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