

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

Anonymous Referee #1

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General: The paper is generally well written and presents a new alternative for combining faults and zones in a PSHA evaluation. The language is generally acceptable, but here and there the Spanish “accent” is coming through, and sometimes wrong wording is used. A thorough “language washing” by a native English-speaker is needed before publication.

On Mmax: This review is concerned with using the catalogue only up to Mmax recorded in the catalogue. What about blind faults that are not mapped and may trigger larger magnitudes away from the mapped faults. The authors should be more clear about this situation. This issue is exemplified in Fig. 6 where the Granada and Almeria hazard

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is so widely different from the zonation based hazard map. Fig. 6 should also be expanded with 1 Hz hazard difference in which the difference between methods could be even higher.

On Mmax: After reading I am still somewhat uncertain how MmaxC and Mmax relate. The authors should make some additional effort in clarifying the different Mmax used for faults and areas. May be use more clear annotations $M_{max}(\text{fault})=M_{maxF}$; $M_{max}(\text{zone})=M_{maxZ}$ and Mmin correspondingly.

On Mmax: May be I have overlooked, but how is Mmax established quantitatively from the catalogue?

QAFI database not defined/referenced.

Fig. 6 and 8: What is the Mmax used in the reference model? Due to the big differences it is important to be very clear about the reference computation. The implications in an application is significant.

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