

Author's response / Letter to the editor

Title: A sanity check for earthquake recurrence models used in PSHA of slow deforming regions: the case of SW Iberia
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Interactive comment by Robert J. Geller (Referee)

Our renewed acknowledgements to Referee #2 Robert J. Geller

We address a special thanks to Robert J. Geller for helping us bringing the paper to an higher level of interest for the research community, that we initially only mentioned lightly.

Reply to Referee #2 comments (Robert J. Geller) Submitted on 10 Nov 2021

1. Add to line 56 after “....uncertainties.” and before “While....”: Mulargia et al. (2017) point out that PSHA assumes that frequencies of past earthquakes can be conflated with probabilities of future earthquakes, but that this assumption appears to be incorrect. All researchers should be aware of this issue.

R: We add the statement as suggested.

2. Add to end of line 689: One possible hope for objectively evaluating the results of PSHA would be aggregating results globally, as was done by Rong et al. (2003) to evaluate the seismic gap model and show that its predictions were not statistically significant. In any case, policy makers and stakeholders should be aware that although PSHA is widely used, it has not yet been validated by objective testing. Thus PSHA should not be relied on as a “black box.”

R: As proposed, we add the above sentence, as well as the suggested additional reference of Rong et al., 2003.