

Rome, July 26<sup>th</sup>, 2019

Dear Editor,

as already discussed with you via email, the following are our changes and responses to your raised points:

(1) Laws vs Relationships:

We have changed all “laws” into “relationships”.

(2) Fig. 9:

Now we understand what you mean. We have included a new statement (page 13, lines 28-31) acknowledging the fact that historical and instrumental earthquakes are reported as punctual epicenters (Fig. 9) even though they were generated by faults that are commonly kilometers-long surfaces. This can lead, in places, to an overestimation of  $\Delta M$  in Figs 10-12.

(3) Worries expressed by Valensise:

We have now introduced a new statement (see below) at page 11 lines 21-24:

“More generally, using surface faults/ruptures to infer earthquake parameters (at seismogenic depths) may lead to a misestimation. This concept has already been addressed in the previous literature dealing with scaling relationships between fault size and earthquake magnitude (e.g., Wells and Coppersmith, 1994; Leonard, 2010; Thingbaijam et al., 2017).”

Thanks a lot for your assistance

Sincerely

Andrea Billi and co-authors