

Editor's comments.

In particular, following Review #1, I suggest you to:

- better clarify in the text which dataset corresponds to the provided DOI: the preferred is identified as D3 at line99, line 109 reads " D6, the final product of this study", and line 245 (in the data availability section) states that Bindi et al (2023) includes both datasets

The DOI is associated to D3; since D6 is a subset of D3, it is also included in the disseminated catalog. To fulfill the Editor's request, we removed "preferred" and "final product". In the current version, these lines read as:

line 110: The spatial distribution of events and stations generating data set D3 are shown in Figures \ref{figure02}a,b; this dataset is disseminated as part of the supplementary dataset.

Line 118: We added a column in the disseminated D3 dataset to flag lines corresponding to D6

Line 278: The archive including the energy magnitude catalogue (D3 and D6 in Table 1) and example of configuration files is available at: \cite{Bindi23repo}, \url{https://doi.org/10.5880/GFZ.2.6.2023.010}.

- briefly summarize the discussion on the uncertainty associated to M_e and the selected regression method, including your reply to the reviewer's comments to Equation 2 and line 174.

Following the Editor's request, we have added a few lines on the variability of the single-station energy magnitude residuals and on the uncertainty of the mean values (lines from 135 to 145):

135 $\phi_0=0.232$ m.u. ~~By combining~~ Combining the inter-event variability τ with the intra-event variability equal to $\phi = \sqrt{\phi_0^2 + \phi_S^2}$, we obtain the total standard deviation $\sigma = \sqrt{\tau^2 + \phi^2} = 0.407$, which represents the variability of the single station M_{eij} residuals with respect to the average M_e computed per event. It is worth noting that the δS_j values can be used as station corrections to compute the energy magnitude of new events. In this case, the inter-station contribution to the total variability is removed and the expected
140 variability of the M_{eij} distribution is reduced to $\sqrt{\tau^2 + \phi_0^2} = 0.338$. Finally, the linear regression model is defined by the coefficients $c_1=(0.77 \pm 0.09)$ m.u. and $c_2=(0.92 \pm 0.01)$. Considering the simplicity of the linear model in equation 2 and the large data set analyzed, the uncertainty on the median model (sometimes referred to as σ_μ , Atik and Youngs, 2014) is very low, increasing from 0.007 for $M_w = 6$ to 0.039 for $M_w = 9$.

I also suggest using the same scale and grid spacing for both axes in the scatter plots (figures 8, 9, 10, 11 and 13).

At the suggestion of the Editor, we have tried to use the same scales for the figures indicated, but we prefer to keep the original versions. The motivation is that these figures show different quantities with values taken from different data sets. For example, below we report Figure 8 where we have extended the x-axis (where M_w is reported) from 5.8 to 5.25 to match the x-range in Figure 9 (where a different magnitude is reported, i.e. MeBB IRIS and MeHF IRIS). We do not like the graphical result, and considering that there is no particular scientific gain in aligning the ranges (because different quantities are shown), we prefer to stick with our original choice.

