EGUsphere, referee comment RC2
https://doi.org/10.5194/egusphere-2022-19-RC2, 2022

Comment on egusphere-2022-19

Anonymous Referee #2

Referee comment on "Combining seismic signal dynamic inversion and numerical modeling improves landslide process reconstruction" by Yan Yan et al., EGUsphere, https://doi.org/10.5194/egusphere-2022-19-RC2, 2022

This work deals with the reconstruction of landslides dynamics using seismic signals and numerical modelling, in the case of the Baige landslide. It clearly has the potential to be a very good paper, as results are, in my opinion, convincing. The manuscript is, besides, well written. However, I think some shortcomings should be addressed to improve the quality of the manuscript:

- The contribution of this work, in comparison to other studies, is not clear. Using seismic data to calibrate numerical models has already been done before. If the analysis of high frequencies in seismic signals (besides, define what you mean by high frequencies) is innovative, it think it is not clear enough in the manuscript how it helps better constrain the landslide dynamics. If the main contribution of the article is using seismic data and numerical modelling to better constrain the dynamics of the Baige landslide specifically (which is perfectly okay), it should be stated more clearly.
- The methodology is not described precisely enough, and some methodological explanations are given in the Results section instead of the Methodology section. In particular, the method for estimating the landslide dynamics from seismic signal, and the method for calibrating model parameters, should be more detailed.
- The authors state that using deposits and seismic data to calibrate the model improves the quality of the simulation results, but do not illustrate it. As this is, if I'm correct, a key point of their work, this aspect could be further developed.
- The figures, and their caption, can be improved.

More details are given in the attached file.

Please also note the supplement to this comment:
https://egusphere.copernicus.org/preprints/2022/egusphere-2022-19/egusphere-2022-19-RC2-supplement.pdf