Natural Hazards and Earth System Sciences Discussions

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC1
https://doi.org/10.5194/nhess-2021-127-RC1, 2021

Comment on nhess-2021-127

Anonymous Referee #1

Referee comment on "Multiscale effects caused by the fracturing and fragmentation of rock blocks during rock mass movement: implications for rock avalanche propagation" by Qiwen Lin et al., Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2021-127-RC1, 2021

Dear Authors,

Thank you for interesting paper. I made several comments and suggest some minor corrections listed hereafter:

Line 65. fractur**ing** and fragmentation. fracture means object while you are talking about the process.

Lines 86-89. It will be good to add some comments, explaining how fractal grain-size distribution is related to hypermobility. Any grain-size distribution is what we measure afterward. Why it appear to be this or that is another question.

Line 150. For the traveling path, the inclined plane is a frictionless rigid **one** with a slope angle of 30°... I do not think that "wall" is a proper word here.

Lines 162, 163, 173, 187. fracturing (see my first comment).

Line 271. based on my field observation I cannot say that rolling is a common process in rock avalanches, anlike fragmenting and sliding.