Natural Hazards and Earth System Sciences Discussions

Nat. Hazards Earth Syst. Sci. Discuss., author comment AC2
https://doi.org/10.5194/nhess-2021-127-AC2, 2021

Reply on CC1

Qiwen Lin et al.

Author 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-AC2, 2021

Thank you for your insightful and helpful comments. All your comments and suggestions are considered.

Haug et al. (2020) indicated that the runout of rock avalaches is dependence on fragmentation to be controlled by the competition between mobility enhancing spreading and energy consuming internal friction. His comments on rock fragmentation in rock avalanches were presented in the new version of manuscript.

We agree with you on that the relationship between velocity/energy increments and block strength are unreliable with only three fit points. What we want to do is use a simple function to describe the increasing trend between those variables, but not trying to seek for the real correlation between variables. Thus, the incorrect expressions about trends and correlations are revised.

Fig. 7 is revised now.

Thank you very much.