

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC3  
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## **Comment on nhess-2020-411**

Anonymous Referee #3

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Referee comment on "Debris flow velocity and volume estimations based on seismic data" by Andreas Schimmel et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-411-RC3>, 2021

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This is a well-written and clear presentation of seismic signal analysis for debris flows. In my opinion the paper is very close to publication as is. I especially liked the discussion, especially the paragraphs concerning volume estimation. The conclusions are straightforward and not overly "hyped".

I have only one request. I found myself studying the debris flow hydrographs, because I am especially interested in the surge behavior as a function of time. I wish I could see the elevation profiles of the three sites, with the location of the gauging stations. The figures containing the torrent overview are based on google maps and contain a 100m scale, but I am interested in the elevation (slope) and distance travelled. I would very much appreciate three distance/elevation plots of the torrents. I would like to know if there are strong slope changes that would generate strong signals, etc. and, of course, where.