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Solid Earth Discussions

Interactive comment on "Combined effects of grain size, flow volume and channel width on geophysical flow mobility: 3-D discrete element modeling of dry and dense flows of angular rock fragments" *by* Bruno Cagnoli and Antonio Piersanti

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Most of the comments have been revised or revised. But I still have two questions as follows: (1) I know you can obtain the gravity center through importing the three-dimensional shape into CAD. But how do you obtain the three-dimensional shape of the deposit especially in a real rock avalanche with volume of more than 1 million m3? Actually some scientists including the reviewer conducted the statistics on relationship between u/l and possible influencing factors, but they used top point of the scar and

distal point of the deposit to calculate the u/l because it is hard to obtain distribution of deposits of rock avalanches since it is complicated. (2) In answer (6), it not true to say "This generates an inverse correlation between flow volume and mobility when this mobility is measured by considering the front of the deposit." Actually, they obtained the inverse relationship between volume and u/l if calculated using the front of the deposit.

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