Nat. Hazards Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/nhess-2018-131-RC2, 2018

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Large Scale Physical Modelling Study of a Flexible Barrier under the Impact of Granular Flows" *by* Dao-Yuan Tan et al.

Anonymous Referee #2

Received and published: 20 June 2018

Page 5: value of 2.0 proposed by Wendeler in 2008: PHD Thesis ETH No 17916 Page 7: velocity of the flow only calculated by the high speed videos? Very roughly, no laser devices in front of the barrier? Page 8: 5 m/s can be for granular flow in the correct range but I am wondering about bulk density given with 1600 kg/m3 fitting not in the range of granular flow which normally have around 2000 kg/m3 (page 22) and more. Page 10: Second surge not realisitc for reality, because the material was already drained. How long was the time in between the two surges? In a real debris flow it happen all together very quickly, there is no time of drainage Page 12, line 279 it is Figure 12 instead of Figure 10. Page 16: Two tests is nothing for research background and statistic interpretation. You need more tests to interprete the results correctly. Second test is not useful because front was stopped, no dynamic impact

onto the barrier. Page 17: f explain and discuss the results together with table 3 page 24. It must be more clearly explained where the results come from. Page 17: I still believe that c=2.0 is representing the granular impact on flexible barriers but we need more test results.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2018-131, 2018.