

# ***Interactive comment on “EDDA 2.0: integrated simulation of debris flow initiation and dynamics, considering two initiation mechanisms” by Ping Shen et al.***

## **Anonymous Referee #1**

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I think that the manuscript is excellent. I only suggest to insert these further references, concerning the statistical models, at page 4 line 67-69:

Baum, R.L., and Godt, J.W. Early warning of rainfall-induced shallow landslides and debris flows in the USA, *Landslides*, 7(3), 259-272. DOI: 10.1007/s10346-009-0177-0, 2010.

Berti, M., Martina, M.L.V., Franceschini, S., Pignone, S., Simoni, A., and Pizziolo, M. Probabilistic rainfall thresholds for landslide occurrence using a Bayesian approach, *Journal of Geophysical Research: Earth Surface*, 117 (4), doi:10.1029/2012JF002367, 2012

Cannon, S.H., Gartner, J.E., Wilson, R., Bowers, J., and Laber, J. Storm rainfall conditions for floods and debris flows from recently burned areas in southwestern Colorado and southern California, *Geomorphology*, 96(3–4), 250–269, DOI: 10.1016/j.geomorph.2007.03.019, 2008

De Luca D.L.; Versace P. A comprehensive framework for empirical modeling of landslides induced by rainfall: the Generalized FLAIR Model (GFM). *Landslides*, 14(3): 1009-1030, ISSN: 1612-5118, DOI: 10.1007/s10346-016-0768-5, 2017

Godt, J.W., Baum, R.L., and Chleborad, A.F. Rainfall characteristics for shallow landsliding in Seattle, Washington, USA. *Earth Surface Processes and Landforms*, 31, 97-110, DOI: 10.1002/esp.1237, 2006

Guzzetti, F., Peruccacci, S., Rossi, M. and Stark, C.P. The rainfall intensity–duration control of shallow landslides and debris flows: An update, *Landslides*, 5, 3–17, DOI: 10.1007/s10346-007-0112-1, 2008.

Staley, D.M., Kean, J.W., Cannon, S.H., Schmidt, K.M., and Laber, J.L. Objective definition of rainfall intensity–duration thresholds for the initiation of post-fire debris flows in southern California, *Landslides*, 10(5), 547-562 DOI:10.1007/s10346-012-0341-9, 2013.

after addition of these references, in my opinion the manuscript is ready for publication

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Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2017-204>, 2017.

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Discussion paper

