

Interactive comment on “A physics-based probabilistic forecasting model for rainfall-induced shallow landslides at regional scale” by Shaojie Zhang et al.

Anonymous Referee #2

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This manuscript proposed a physical-based probabilistic forecasting model for rainfall-induced shallow landslides at regional scale, in which only cohesion and tangent of frictional friction were considered as uniform probability distribution model for per pixel, and other parameters are fixed. Because the cohesion and friction angle always are not uniform distributed within two limits, the proposed method is not based physically as called by the authors. In addition, please consider the following comments if the authors revised the manuscript. 1. As expressed in Eq. 1, the safety factor is influenced by ϕ_b related to the matric suction. How this parameter is determined in the calculation? 2. How about the initial water content along the depth? 3. The distribution of cohesion and internal friction angle in Fig. 8 should be consistent with the soil type

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in Fig.7, but it is not so now.

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