

Reply to reviewer n.3: M. Mergili

“Evaluating performances of simplified physically based models for landslide susceptibility”

G. Formetta, G. Capparelli, P. Versace.

We focused more on one of the question raised by the reviewer n.3 and we added two more sentences in the text regarding the available data in the study area, and the calibration of the steady-state rainfall. The question of the reviewer was:

“In summary, I have the feeling that the authors have done a really fine work in implementing and explaining the computational aspect of their calibration and evaluation procedure. In contrast, they still have to reflect the scientific meaningfulness of the case study employed. At least some aspects should be explained and justified in a clearer way. I would even suggest to rethink the concept and maybe re-do the analysis, calibrating only the material parameters. If the data allows, I suggest to use subsets of the landslide inventory which can be assigned to well-defined rainfall events, and to apply the corresponding rainfall intensities and durations to the model.”

The two new sentences added in conclusion of the revised paper are:

“In the application we presented the effective precipitation was calibrated because we were performing a landslide susceptibility analysis and it was useful for demonstrating the method. However, we are aware that for operational landslide early warning systems the rainfall constitutes a fundamental input of the predictive process”.

“Moreover, the analysis would profit from measured rainfall data that triggered the occurred landslides, but that such data are not available at the moment for the study area”.