

Gießen, Aug 21st, 2026

Dear Robert Greco,

Thank you for handling our manuscript. We have changed the style issues raised by the editorial office, like colored frames in a table, corrected several typographical and grammatical errors, and fixed the last formulation issues raised by Peter Oberle (see below). We would like to thank the reviewers for the great effort put into our manuscript.

Best Regards,

Philipp Kraft and Azam Masoodi

Issues raised by Peter Oberle:

L37: „..., which will be used to develop and validate a 3D numerical model.“ should be: „..., which represent natural processes and can be applied in 2D numerical models to simulate overland flow.“

- Changed as proposed

L169ff: „Since the surface of the experimental plots is homogeneous, spatial variability can be ignored in the model, the generated DEM does not include microtopography.“ Maybe clearer if it's something like this: “Since the mean slope of the experimental plots is constant, spatial variability can be ignored in the model, the generated DEM however does not include microtopography.”

- Changed as proposed

Fig 1 b): From my understanding the red arrows indicate the discharge collection and the measurement itself is carried out at the four Bernoulli tubes in the front. Additionally, I believe that the mentioned calibration in Ries et al. (2020) refers purely to the stage-discharge relationship of the Bernoulli tubes. Arrows should be adjusted accordingly.

- We think the location of the surface water collection is more important for the manuscript. We changed the figure caption to: The red arrows indicate the locations of flow collection.

L286: Punctuation after Munoz-Carpena (2009)

- Corrected

L441: Maybe explain effects due to flow resistance and infiltration in two separate sentences for better understanding:

“These factors can significantly influence overland flow and flow resistance coefficients, as discrepancies may exist between the conditions studied, which lead to the analyzed empirical formulas, and the investigated surfaces.” -> The infiltration processes in real field conditions...

- We have reformulated the part as: *These factors can significantly affect influence overland flow and the associated flow resistance coefficients, particularly because the conditions under which the empirical relationships were derived may differ from those of the surfaces investigated in this study. Small-scale heterogeneities can also affect infiltration processes under real field conditions by altering local water retention and ponding, soil–water contact time, and the development of preferential infiltration pathways. In the model, these effects are represented by a simple surface retention factor as a proxy*