

Hydrol. Earth Syst. Sci. Discuss., author comment AC3
<https://doi.org/10.5194/hess-2020-646-AC3>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Reply on RC3

Thibaut Lachaut and Amaury Tilmant

Author comment on "Possibilistic response surfaces: incorporating fuzzy thresholds into bottom-up flood vulnerability analysis" by Thibaut Lachaut and Amaury Tilmant, Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-646-AC3>, 2021

We would like to thank the referee for this second review. We are grateful for the detailed corrections, and we will apply all the changes suggested in the supplementary material in the final version. There is only one clarification that we would like to make: by the end of the introduction, we do consider that the internal uncertainty of the response function is the challenge to the application of a fuzzy threshold, not the motivation. The sentence could be clearer, so we propose this change:

Previous version, L95: "Such internal uncertainty to the response function challenges the introduction of fuzzy thresholds, as the separation of the exposure space into acceptable and unacceptable regions is not obvious even with a binary definition of acceptability."

Modified version: "These studies show that, even with a crisp acceptability threshold, the internal uncertainty of the response surface can challenge the separation of the exposure space. Introducing a fuzzy threshold to a response surface that also has its own uncertainty is not trivial as these concepts address forms of imperfect knowledge that are very different in nature."