

Nat. Hazards Earth Syst. Sci. Discuss., author comment AC2
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Reply on RC2

Mathias Raschke

Author comment on "About the return period of a catastrophe" by Mathias Raschke, Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-86-AC2>, 2021

Dear Dr Aloïs Tilloy,

Thank you very much for all your effort regarding my manuscript (MS) and the helpful comments, notes and advice. I will consider some of these directly in a revision. However, I will also reject some of your concerns by arguments. Before, I would like to give following general reflections.

I aware that my English is poor and awkward. Therefore, I used already the help (proofreading) by two colleagues. The outcome of this procedure is unfortunately not good. Besides, I do science with my personal limited resources. Nonetheless, I will use a more professional service after a revision. The mathematical notation was already validated by a mathematician for the current submission.

Furthermore, there is no uniformity in scientific writing. The explanation style is extreme short in Mathematics compared (e.g.) with social sciences. I am more oriented to the first and prefer sparsity.

Besides, I was not sure about the level of mathematical/stochastic expertise of the different (and fragmented) science communities which deals with natural catastrophes. According to your and the other reviewers commends, more mathematical explanations are needed. I will add a subsection. However, I don't want to explain too many details which would be trivial for a student in mathematics (may be 3rd semester). A higher level of statistical expertise of the reader is assumed what I will mention in a revised introduction.

In addition, I will change the structure of the MS in a revision. Nevertheless, I underline that there are very different accepted or even prescribed structures for scientific papers (e.g., Nature Scientific Reports). And I keep the distinction between the new approach (CRP as main result) and technical details for the demonstration example.

A classification of a reference as ancient can be critical. Mathematicians prefer to refer to the original explorer/inventor of a theorem and its proof. I am oriented to this practice.

I do not share your opinion that the new opportunity for estimation of risk curves by CRP is not a clear result. Previous estimates were not reliable or are based on complex models with high numerical burden.

My replies to your detailed comments are below.

Once more, thank you very much for your advice, notes and comments.

Sincerely,

Mathias Raschke

Please also note the supplement to this comment:

<https://nhess.copernicus.org/preprints/nhess-2021-86/nhess-2021-86-AC2-supplement.pdf>