

Interactive comment on “Non-stationary extreme value analysis applied to seismic fragility assessment for nuclear safety analysis” by Jeremy Rohmer et al.

Jeremy Rohmer et al.

j.rohmer@brgm.fr

Received and published: 9 March 2020

Dear Referee #1,

We would like to thank you for your constructive comments. We agree with most of the suggestions and, therefore, we will modify the manuscript to take on board your comments. In the document (supplement to this post), we recall these comments and we reply to each of the comments in turn (outlined by “<Authors’ reply>”). The document (supplement to this post) provides full details on how we improve the different aspects, which consists in: - Adding technical details on the statistical methods (double penalization, AIC-BIC model selection); - Discussing the implications of these methods with

C1

respect to alternatives (use of QQplots, GAMboostLSS): - Adding more details on the case study and on the numerical dynamic simulations; - Deepening the analysis on the uncertainties.

Yours sincerely,

Jeremy Rohmer on behalf of the co-authors

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-400/nhess-2019-400-AC1-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-400>, 2019.

C2