

Interactive comment on “A new approach to flood loss estimation and vulnerability assessment for historic buildings in England” by V. Stephenson and D. D’Ayala

Anonymous Referee #1

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First of all, I think this was a very interesting article to read. As everyone in the flood research community knows, a lot of the loss assessments are still in need of further development. Therefore, I think that the topic of addressing the vulnerability of historical buildings, which can be found in almost every city throughout Europe (or the world), is important. However, I would like to make a few critical remarks:

- The research is very much focused on the UK. It would be valuable if the authors would elaborate a bit more about the applicability of the proposed technique outside the UK. Is the data the authors use very specific for the UK or is it general data which is widely available?

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- This also brings me to my next point. A number of times, terms are being used that are somewhat unclear for people outside the UK. An example is the term ‘Grade’. The authors use the term a couple of times, but it is not clearly explained what these ‘Grades’ actually mean? It would be valuable to add a sentence or two to explain it. Or another example: what does m.a.m.s.l mean?

- Another point of discussion is the scaling of the parameter. The range of the attributes for each parameter is now between 3 and 5. This scaling between 3 and 5 feels rather arbitrary. I believe the methodology would improve if a more detailed explanation is added about the ideas and methods behind the range of 3 and 5. Most of the results are based on the range of these attributes. Why is the range, for instance, not between 1 and 5 or 1 and 3?

- In chapter 4, the authors talk about the flood risk of a specific area. It is somewhat unclear if they mean flood risk (probability*consequences) or flood hazard. I would like to address that it is important that the authors make sure that, throughout the article, they use the correct terms regarding flood risk, flood vulnerability, flood hazard and flood exposure.

- I was wondering why the authors chose for a log-normal distribution of the functions. Is this the best option? Was log-normal the best fit for the data? What is the uncertainty in using this distribution?

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