

We thank the topical editor for the friendly support in handling the manuscript and for providing additional comments. We have addressed them as follows:

*There are just some minor things to be corrected in the Abstract and Conclusions. In the abstract, please change "The subsurface material" into "The rocks beneath the Mexico City..." or something similar (sediments?).*

We have changed this formulation to "sediments underneath", as it is in fact mostly the sediments that are responsible for the strong site effects (together with the basin shape).

*In the Conclusions - in the first sentence, the formulation "in the Mexico City basin" is bit awkward, as there is no such geological formation. Maybe simply: beneath the Mexico City.*

We agree, previously we had not noticed this slightly odd formulation. We have changed it to "underneath Mexico City".

*Also note that currently the Conclusions are quite lengthy and contains also literature references. I would appreciate if you can make them shorter and avoid citing references in this section. All was already mentioned in the Discussion section.*

We thank the editor for this suggestion, which we think actually helped to make the conclusions more concise. We have removed all the literature references and shortened the text by removing some less essential details.

The references had indeed all been cited either in the methods or results&discussion part, with the exception of the references about non-linear behaviour of the basin sediments. Therefore, we added a new sentence to the results and discussion part, section 5.4: "Velocity decrease is observed across all the studied locations including those on lacustrine clay, supporting the conclusions by Singh et al. (1988b) and Beresnev and Wen (1996) who stated that the lacustrine sediment behaves non-linearly."

We will append a marked-up version of the changed manuscript and a clean version of the changed manuscript. No changes have been made to the supplementary material.