The impact of topography on seismic amplification during the 2005 Kashmir Earthquake

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We are thankful for the reviewer's comments and have taken care of addressing all of them. Below you will find replies to each comment individually, and references to the location in the manuscript where the suggestions have been incorporated (underlined where changes/improvements are made).

Reviewer 1		
Comment	**Reply**	**Manuscript Reference**
The approach chosen to evaluate the effect of regional topography to run scenarios with and without topography, to separate low and high frequency accelerations as described on page 4 top seems a valid approach. On page 4 line 14 is mentioned that a 'homogenous halfspace model is used. This might need some clarification what that means in the model and what the implication are for the outcome of the model and accuracies.	A halfspace is a simplified mathematical model used to approximate the earth when performing seismological calculations. In a homogeneous halfspace, material/velocity properties are kept constant throughout the model. There are mainly two reasons behind adopting homogeneous halfspace instead of a heterogeneous halfspace (where the material/velocity properties changes). 1. Non-availability of the tomographic velocity model. 2. To avoid any effect of heterogeneity on amplification. Non-availability of the tomographic velocity model, especially at the resolution adopted in this study. This may change the absolute ground motion values but not the amplification due to topography (except when there are sediments, which we have explicitly excluded in our modeling due to large uncertainties in the sediment thickness in the area and the overprint on a possible topographic seismic amplification effect). It might have a slight effect on the spatial amplification pattern; an incoming wavefield can come in under a different angle if a layered velocity model will be used, but we have estimated that the effect of making a guess for the correct global velocity model for an intra-crustal earthquake is	Lines 19-35 on page 4. Lines 1-2 on page 5.

	as uncertain as the choice for a homogeneous upper crustal velocity model. This is discussed in the last paragraph of the methodology section. Based on this comment, we decided to revise the manuscript to make this explanation clearer.	
A mesh size of 270 m was chosen and used. Not sure what the motivation for this meshsize is. Please add a few words on your considerations.	The motivation behind this choice was briefly discussed in the Methodology section and is based on previous research (Khan et al., 2017). In this earlier paper we have tested several mesh resolutions to find the best approach in a trade-off between accurate results and computing time. It was shown that for the geomorphological geometry for Pakistan a 270 m mesh resolution gives accurate results and a significant decrease in accuracy is observed for coarser models. Based on the question, we decided to revise the text for better clarity.	Lines 17-23 on page 3.
Sections 3 and 4 are both titled 'Methodology' in my version of the paper. Section 4 must read Results I suppose.	Thank you; we changed that.	Line 3 on page 5.