

Interactive comment on “The impact of topography on seismic amplification during the 2005 Kashmir Earthquake” by Saad Khan et al.

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General: The study presented in this paper shows an interesting case study of modelling the effect of topography on local ground shaking during the Kashmir earthquake. Although I am a bit away from the scientific field and not an expert in SEM - SPECFEM3D I believe the study is an interesting contribution to our knowledge on seismic amplification and the role of topography, applied to an interesting study area of the Muzaffarabad fault and to a relevant event. The presented discussion (pages 6 and 7) on the relation between seismic amplification and the occurrence and patterns of landslides is very interesting. I understood this is already a revised version of an original paper. With some minor adjustments I think it can be accepted.

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Specific Comments: 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 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.

Technical: Sections 3 and 4 are both titled ‘Methodology’ in my version of the paper. Section 4 must read Results I suppose. Figures are relevant and well taken care of.

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