Earth Surface Dynamics Discussions

Earth Surf. Dynam. Discuss., author comment AC1
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Reply on RC1

Wei Shi et al.

Author comment on "Response of modern fluvial sediments to regional tectonic activity along the upper Min River, eastern Tibet" by Wei Shi et al., Earth Surf. Dynam. Discuss., https://doi.org/10.5194/esurf-2022-34-AC1, 2022

We are grateful to **Reviewer 1** for giving us detailed comments to improve our manuscript. The responses to the comments from Reviewer 1 are addressed point by point as follows.

Comments

Shi et al. present combined analyses of grain-size distribution and magnetic susceptibility in modern fluvial sediments from the upper Min River, Eastern Tibet to distinguish regional tectonic vs climatic influences on fluvial deposition. Their study indicates that tectonic faulting exerts a first-order control on fluvial deposition in tectonically active regions, which are well supported by regional relief and hillslope angle data. As far as I know, this study proposes a new and plausible method to characterize the development of tectonic activity along a transect, which is distinctly different from the traditional low-temperature thermochronologic dating and seismic methods as we often see. Therefore, I recommend this manuscript for publication. In the meantime, there are some minor issues that are needed to be clarified before this manuscript can be completely accepted.

Thank you very much. Revisions have been made below according to your comments.

Please also note the supplement to this comment:
https://esurf.copernicus.org/preprints/esurf-2022-34/esurf-2022-34-AC1-supplement.pdf