

Interactive comment on “Transitional relation exploration for the typical loess geomorphologic types based on the slope spectrum characteristics” by S. Zhao and W. Cheng

Anonymous Referee #2

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General comments: This is a very interesting paper addressing an important subject of transitional relation exploration for the loess geomorphologic types. For the highly erosion-prone soil that is susceptible to the forces of wind and water, morphology of the Loess Plateau is very complicated and mobile. The documented findings provide insight into possible hillslope process of the loess morphology. In terms of the methodology, slope spectrums analysis is novel and feasible in the loess geomorphology studies. The paper provides a useful tool to explore the process of topography evolution, not only for loess geomorphology, but also for other landscapes.

Specific comments: (1) The authors mentioned that the transitional rule among typical loess geomorphologic types is widely acknowledged as from loess tableland to loess

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ridge and finally to loess knoll. However, it seems that the continuous transition relationship of the histogram skewness is not very obviously with increasing mean slope from loess tableland to loess knoll (Table.1). Then, is this adequate using the prior knowledge directly? (2) Some subtypes have similar slope spectrums, such as the oblique ridge and the knoll ridge. How to identify the transition relationship between them?

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