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Interactive comment on "Impacts of Tibetan Plateau uplift on atmospheric dynamics and associated precipitation $\delta^{18}O$" *by* S. Botsyun et al.

Anonymous Referee #1

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The processes and factors influencing the precipitation delta 18O are very complex. This could lead to large uncertainty in paleoelevation reconstructions based on stable oxygen isotope technique. Based on model simulations, here the authors performed analyses to quantify the relative contribution of different factors related to the Tibetan Plateau uplift on the precipitation delta 18O. They also applied their results at the locations where plaeoelevation studies have been done and estimated the uncertainty in previous studies. I find this study very interesting and useful for paleoelevation reconstruction over the Tibetan Plateau region. The paper is well written and explained. I only have one question: what is the reason to choose the two topography scenarios, 50% of modern elevations and 250-m elevation? Would these specific scenarios have an influence on some of your results and conclusions? In another word, if other scenarios were chosen, would the results and conclusion be changed?

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Discussion paper

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