

## ***Interactive comment on “Impacts of spatial resolutions on projected changes in precipitation extremes: from site- to grid-scales” by Jianfeng Li et al.***

### **Anonymous Referee #1**

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This study tried to verify the resolutions of GCMs have less effect on projected changes in precipitation extremes. I thought the current conclusion did not make sense due to GCMs with coarse resolutions showed bad performance in simulating the extremes. One approach was downscaling tech including dynamic and statistic methods. The statistic was not appropriate in western China because lack of observations. So this study still focused on the GCMs' resolution impact on climate projection was not a new insight, even combined with statistic downscaling. Here, the statistic downscaling could NOT improve the GCMs resolution too much because of the observations were very limited derived from 509 stations. Some studies have already verified the finer resolution through dynamic downscaling could improve the model performance in terms of

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precipitation and the other elements, especially captured the extremes event induced by mesoscale system. And their results also showed different resolutions had great impact to modeling climate change (e.g. Gao et al. 2012 Climate Research). So I suggest the contributors to turn to the GCM-RCM through dynamics downscaling and see if the spatial resolutions have impact on projected changes.

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