

Review of: "Spatio-Temporal Analysis of Precipitation Patterns in Xinjiang Using TRMM Data and Spatial Interpolation Methods: A Comparative Study"

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Potential competing interests: No potential competing interests to declare.

Comment to "Spatio-Temporal Analysis of Precipitation Patterns in Xinjiang Using TRMM Data and Spatial Interpolation Methods: A Comparative Study"

In principle, precipitation is not continuous in space at the edge regions, making various interpolation methods invalid. Thus, investigating the effects of interpolation method on precipitation patterns is somehow valuable and interesting.

Introduction part:

Regarding the humidification trends in northwest China, or increasing trend of precipitation over this area, one more reference is suggested, Su et al. (2020, doi: 10.3390/atmos11030303). Regarding the importance of XinJiang's precipitation pattern, more information or supporting reference is helpful. Regarding the use of satellite remote sensing for climate research, a few references could be helpful.

One critical issue for using TRMM to study precipitation in XinJiang is the accuracy. As well known, TRMM has great accuracy for heavy precipitation, but has large uncertainties (due to the instrument ability) for light precipitation. For Xinjiang region, I think more precipitation belongs to weak precipitation (scarce precipitation as indicated in paper). How do the authors consider and solve the TRMM precipitation uncertainties issue?

Data and Method part:

Figure 1, English instead of Chinese should be used in the map.

"with data in millimeters per hour" should be "with unit in millimeters per hour"

The four metrics assessing precipitation have been used widely, a few references could be useful.

Results and Analysis part:

Caption should be better as "Analysis and Results"

Figure 2, Similarly, English should be used for the figure x- and y- captions.

Title of section 3.3.1, it should be "characteristics"

Section 3.4, Actually, the increasing trend of precipitation has been found by previous studies, including the reference I mentioned earlier, which are worthy to mention for comparison.