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.

Re-review of the manuscript '*Spatio-Temporal Analysis of Precipitation Patterns in Xinjiang Using TRMM Data and Spatial Interpolation Methods: A Comparative Study*' submitted to *Qeios*.

I checked the updated version of the manuscript and compared it to the earlier draft.

The paper has been revised by the authors as per the advice of reviewers.

The authors made improvements and updated the manuscript.

The authors presented a study on climate effects, which was evaluated in the context of global warming. They assessed changes in precipitation patterns in Xinjiang and found an increase in extreme weather events that have had a serious impact on regional development.

In order to grasp the temporal and spatial distribution characteristics and trend changes of precipitation in Xinjiang, the authors used several geospatial analysis methods: TRMM3B43v7 data were interpolated with the radial basis function method, inverse distance weighting method, ordinary kriging method, and ANUSPLIN interpolation method.

They used evaluation indicators to determine the best interpolation method. In the presented paper, the authors demonstrated that the applicability of TRMM data in Xinjiang is good, but it is overestimated.

Besides, they noted that the average monthly scale is 1.30mm higher. Moreover, the authors reported that precipitation in Xinjiang is mainly concentrated in the north of the Tianshan Mountains and less in the south.

Specifically, they found that from 1998 to 2019, the precipitation trend in Xinjiang showed an increasing trend, with more than 63.64% of the total area of Xinjiang showing an increasing trend, and the western region showed a significant increase, while the eastern region showed a slight decreasing trend.

The paper contributes to regional climate studies in China using GIS and geospatial analysis.

Also, the authors proofread the text throughout the manuscript and corrected occasional mistakes.

The revised manuscript is improved and can be accepted for publication.

With kind regards,

- Polina Lemenkova.

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