

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

Habib Ghaedamini

Potential competing interests: No potential competing interests to declare.

1. This article is entitled "Spatio-Temporal Analysis of Precipitation Patterns in Xinjiang Using TRMM Data and Spatial Interpolation Methods: A Comparative Study." The title is general and vague.

2. Zhang et al., 2016 evaluated Spatial downscaling of TRMM-based precipitation data using vegetative response in Xinjiang, China. It seems this article is similar but abstracted from this work. Please mention in the article's introduction the importance of this work and the differences between the mentioned article and other similar works.

3. The introduction does not provide much information about the purpose of the research, so the reader does not make any connection with the existing gaps to carry out this research. It is better to refer to the previous research in China and the mentioned region and mention the existing gaps in line with the importance of this work.

The authors stated in the introduction that this work delineated the region's spatial and temporal precipitation trends. Although the results section focuses on data quality in monthly and annual time scales, specific spatial scales are not mentioned. Please clarify this contradiction in the review of the article.

4. The purpose of using interpolation methods is not clear. Is it used to convert the irregular time series of 42 observation stations into regular grids? The objective is not specified in the methodology.

5. It seems that the authors have focused on comparing observed and satellite precipitation trends in the analysis, which is not consistent with the title of the article.

6. Is Fig. 2 comparing site-measured precipitation data with TRMM precipitation data based on the areal precipitation average in the study area?

7. Tables 2 and 3 show that for all interpolation methods, there is no significant difference between the criteria except for the correlation index. Can the superiority of the models be justified based on the correlation coefficient? It should be explained that although the region's topography is complex, these methods have no significant difference.

8. The article's writing does not have a coherent structure and needs to be rewritten and clarified. Please note that this article is unsuitable for publication in a scientific journal.

