

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

Noor Azlinda Ahmad¹

¹ Universiti Teknologi Malaysia

Potential competing interests: No potential competing interests to declare.

The whole idea of this study is valuable and beneficial to urban planning, agricultural development, weather prediction, and management. It is suitable for publication subject to some minor corrections and justifications. Below are my comments, and I hope they will help the authors improve their manuscript accordingly.

1. **Strength:** Weather prediction and proper urban and agricultural planning for the related areas.
2. **Weakness:** Though I think this manuscript is as good as it is, it would be great if the authors could further elaborate on the discussion part of their results to include some scientific justifications/arguments on the possibility of an increasing/decreasing trend observed in certain areas. Though they have provided a simple explanation, a detailed discussion of this part would be valuable. Try to relate your findings to the existing literature (especially on the methods used) and then draw meaningful conclusions.
3. **Methods used:** The method used is clearly explained and straightforward. I like the fact that you compare all four methods and summarize the drawbacks and strengths of each method, including the formulas used for each of them.
4. **Results and analysis:** The results shown in Figures 4 and 5 are difficult to interpret. I would suggest you change the language used to English so that it's easy for non-Chinese speakers to read and understand all the labels used. For example, in Figure 4, what do the colors indicate (blue, red, and yellow)? It was stated that the precipitation increased in the regions of Aksu, Kashgar, Hotan, and Aral, but are those locations indicated in Figure 4? It would be appreciated if the authors could show the increasing pattern on a map instead. Similarly, in Figure 5, it was stated that precipitation is higher in summer. But since I don't understand Mandarin (I guess this is the language used), I can't figure out exactly which color represents the different seasons. I wildly guess that the orange is representing summer in this case. This comment also applies to Figure 6. Make sure the axes are labeled clearly and correctly (with the proper unit, if necessary).
5. Authors explained the trend test (page 6), but the results of the test are not appropriately presented in the manuscript. Explain why $\alpha=0.05$ was chosen (if it is by default, then just mention it) and how the trend can be considered significant at the 90%, 95%, and 99% confidence levels. Is it based on a statistical table or any justification to verify your claim?

