

“Contribution of surface solar radiation and precipitation to spatiotemporal patterns of surface and air temperature warming in China from 1960-2003” by Du et al.

After reading the manuscript, I have the following main comments

- 1) While the regional trend patterns of T_s , T_a , R_s and P and their relations are interesting, the authors did not give fully explanation of the possible reasons causing the formation of these patterns.
- 2) Unless I downloaded the wrong version, I found there are some mislabelling of Figures in the text. e.g., I can't find Fig S9g-i (line 383).
- 3) I noticed the authors were asked to justify the calculation of adjusted T , but I can't see the justification in the current version.
These parameters (T_a , T_s , R_s and P) interacts with each other, it is not easy to distinguish the casual relations. I am not sure I understand the actual implication of the adjusted T in section 3.3.

Minor comments

Please make Figure or Fig. consistent. eg Figure 1, but Fig. S1.

Line 22: “**stronger in northwest China**”. Are you sure it is not the northeast China?

Line 22: “**and weaker in South China**”. Is this before adjust or after adjust? Before adjust as shown in Fig. 4, the trend is negative in South China, not “weaker”.

Line 23: R_s is redefined as SSR in Fig. S4. Make it consistent.

Line 25: Is R_s daily mean, monthly mean here? Same for T_s -max and T_a -max

Fig.S6: the caption is copied from the old version, the referenced Figs are not there anymore.

Line 28: “**were much higher than those in other regions**”. It is hard to get this conclusion, since you don't have enough coverage over other areas.

Line 32: “**North China Plain and the Loess Plateau**”. It will be easier to see if you mark these regions on the corresponding map.

Line 92: “**sever air pollution** “ severe air pollution

Line 155: “**Our study is the first to use T_s observation as a parameter for identifying regional climate change.**” I doubt it.

Line 196: “**reanalyzes**” , reanalyses?

Line 241: In Eq (1). Are R_s and P anomalies? Please make it clear.

Line 245: “**Fig. S3**”. Fig. S4?

Fig. S4 & 5: Please explain the large difference of the sensitivity in Fig S5a and g.

Line 342: Fig S7? Please check it is the right Fig.

Line 376: Fig. S5? Please check.

Line 381-382: Fig S9 doesn't have g-i. Please check.