

Cloud are the important parameter in weather and climate research . In xinjiang area there are sparsed ground station and the satellite data application is more important .So the validation of satellite data is crucial. The research is meaningful. But there are some comments as following:

1. Line 120 : "2.2 Research data", the description is too simple. The distribution of the 66 ground based TCC observation should be given, such as see(figure 1). The ground based TCC is about 0 to 10? and the FY-2F/CTA should be 0-100%?
2. Line 133:"where the projection method is Mercator projection, the nearest neighbor method is used for resampling. Secondly, selecting ground-based observations that match the timing of satellite observations".
 - (1) Which satellite/CTA data you use? You did Mercator projection? Why use Mercator projection?
 - (2) "Nearest neighbor method", what distance?
 - (3) "match the timing" ,how many minute you use? the same time? Please give the details.
3. Line144 to Line 147:"When the observation 145 of ground station is clear sky, but the satellite detection result is cloud, then the effective cloud arithmetic average is performed on the points in a certain area around the point, and if it is still clear sky, then the satellite is judged to have missed the detection, this point is recorded as Yn." Please check is it right? It's not consistent with " ③ When the observation of ground station is clear sky but the satellite detection result is cloud, it would be judged that the satellite misjudgment and be recorded as Ny;"
4. Line 155:"they are considered to be stronger that the values of difference are greater than 2, they are considered to be weaker that the values of difference are less than -2;" and the consistency rate (CR), strong rate (SR) and weak rate (WR) can be expressed as Eq. (5) to Eq. (7) respectively.

is there any cite paper?
5. It should give some description for the figures in the paper .For example , with Figure 2, it should tell the reader which is PR distribution, which is the MR distribution at first. The reader will not be confused and search the information in Figures.

The following Figures have the same problems.
6. Line 179: should be 1.375um ,not "gm" .Same Line 180
7. Line 186: Line 188: Line 198: FT-2F/CTA is not right.
8. Line 276, "It is observed that with the increase of altitude, the PR and CR of FY-2F/CTA present a decreasing trend", It seems that decreasing trend is not obvious.
9. All results should be given the numbers of sample. how many matching data author used and got the conclusion? and how about the significance test? Otherwise ,the reader can not be convinced.

10. In “3.3 The difference between FY-2F/CTA products and Manual observed TCC under various cloud cover levels of Xinjiang “. The FY-2F/CLA product’s resolution is $0.1^{\circ} \times 0.1^{\circ}$ (one point covers $0.1^{\circ} \times 0.1^{\circ}$ area), ground based TCC data is the station data (scatter data). How to consider and deal with difference of the coverage of two types of data?
11. Line 352: “high” should be “higher”