

Interactive comment on “Extreme temperature and precipitation response to solar dimming and stratospheric aerosol geoengineering” by Duoying Ji et al.

Anonymous Referee #2

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General Comments: In this manuscript, the authors analyzed the extreme values of climate indicators under 2 different solar radiation management scenarios G1 and G4. They took extreme index by ETCCDI and applied it on temperature and precipitation. The authors tried to find the differences and similarities on the global impact of two SRM experiment. And also tried to analysis the differences among the model.

This manuscript is novel and further complete the understanding of SRM. The structure is also well organized. I recommend the manuscript for publication though some of the comments still should be fixed or rephrased.

Specific Comments: 1. The significant regions in Fig. 2c and 3c,f,j need further de-

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scriptions on calculation process; 2. The uncertainty reason present on abstract may not be proper here. Rephrase the word may be better. 3. On Page 15, Line 1-6, this paragraph are not linked so well with the context. There are also no further analysis on the daily rain types. Further explanation and graphs would be better.

Minor comments: 1. P2 L18: Missed ref. Lathan et al.

2. P3 L12: Missed ref. Niemeier et al.

3. P5 L1: The estimate of CSDI and WSDI is applied on ensemble mean temperature or mean CSDI/WSDI?

4. P8 L24-27: It is not clear for me about the relations between different models and the geoengineering impact. Further expression would be better.

5. P12 L2: May be I got missed but I'm not sure what the 'case' indicate.

6. P13 L28: Eastern China in Fig4 seems no special around the globe, this part may need further explanation.

7. P14 L10-13: The reduction of Rx5day is whether a result from Curry et al., 2014 or from the paper result? Further explanation would be better.

8. P15 L1-6: The paragraph may not fully link with the context and there is no graphs or tables to support the statistics.

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