

Interactive comment on “A long-term observational analysis of aerosol-cloud-rainfall associations over Indian Summer Monsoon region” by Chandan Sarangi et al.

Anonymous Referee #2

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The authors presented aerosol-cloud-rainfall associations over Indian derived using multiple datasets from satellite and meteorological stations. The subject of the paper is appropriate for ACP. However, the paper contains some issues indicated in the following comments. I recommend the acceptance of the paper for publication only after these issues being addressed by the authors.

1. Though the number of total samples is given in Figure 3, the number of samples in each AOD bin is not found in the figure and the text. The vast majority of cases may be with middle AOD, but the very clean cases (e.g. 0.01~0.1) and very heavy polluted cases may be relatively rare over the study region in Indian. Therefore, the representation of samples in both very clean and very polluted cases is unclear. Conclusions

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based on a few extreme data points or from largely scattered data need further scrutiny. Such concerns are also in Figure 11.

2. The analysis based on the simulation work is irrelevant to the title of this paper "A long-term observational analysis of aerosol-cloud-rainfall associations over Indian Summer Monsoon region". Some modifications are necessary.

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