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Interactive comment on "Statistical characteristics of raindrop size distribution over Western Ghats of India: wet versus dry spells of Indian Summer Monsoon" by Uriya Veerendra Murali Krishna et al.

Anonymous Referee #2

Received and published: 31 December 2020

- 1. Lines 105-110: The research gaps in this study need to be further clarified. As the DSD statistics have been reported in the previous literatures in the Western Ghats. The authors could deepen their exploration on the mesoscale processes associated with the precipitation dynamics of Indian Summer Monsoon.
- 2. Line 118-121: Please add a figure to show the topographic map and location of the disdrometers used in this study.
- 3. Line 190-196: Please explain the selection of temperature and specific humidity at 700 hPa as the data sources of water vapor analysis. Why the wind feature is not considered in the analysis. Also, the spatial resolution of ERA-Interim is 0.25×0.25

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deg, and the disdrometer data is site-based. How to fill and explain the uncertainty of the spatial resolution between ERA-Interim and in-situ disdrometer.

- 4. Line 374-378: The precipitation classification algorithm needs to be further clarified as the Bringi et al. (2003) approach has been improved since 2003.
- 5. Line 564-567: The explanation of feedback mechanism during the wet and dry spells are weak. Although Fig.10 shows the temperature and specific humidity patterns during wet and dry spells, lacks of enough quantitative analysis. Please give more evidences to support the feedback mechanism.

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2020-1011, 2020.