Reply on RC2

Wenqian Mao et al.


- 1) On line 18, the “which” had better to be replaced with “while”.
  Thanks for your advice. We have revised the conjunction.

- 2) The period on line 32 should be updated with English style.
  Thanks for your advice. We have revised the parentheses with English style.

- 3) The period before (SR) should be removed on line 50.
  Thanks for your advice. We have deleted the period.

- 4) “in southeast” should be updated as “in the southeast”.
  Thanks for your advice. We have updated this statement in the whole manuscript.

- 5) “results from” had better be replaced with “measurement in” on line 56.
  Thanks for your advice. We have replaced the expression.

- 6) Insert a blank space between the number and unit on line 57.
  Thanks for your advice. We have inserted a blank between the number and unit in the whole manuscript.

- 7) “vary from location” had better be replaced with “vary with”, or “vary from location to location”.
  Thanks for your advice. We have revised as “vary from location to location”.

- 8) The equation on line 139 shows up suddenly and suffers from discontinuity in the context. Similar case can be seen for Eq. (7) on line 169.
  Thanks for your advice. We have added some contexts before the both equations to
improve the continuity

- 9) “with” or “by” should be added after the word “calculated” on line 149.

Thanks for your advice. We have added the word “by” after the word “calculated” and checked the similar problems.

- 10) Refine the sentence on 167-168.

Thanks for your advice. We have refined as “And it has better fitting capability than M-P distribution on the broader variation of DSD fluctuations, including the middle rain drops, especially on small and large rain scale”.

- 11) Replace “to be well fitted” with “to well fit” on line 167.

It shown as the above response.

- 12) Refine the sentence on line 174-175.

Thanks for your advice. We have refined as “Although, the gamma distribution is commonly accepted, the normalized gamma distribution has also been widely adopted with its independent parameters and clear physical meaning as follows”.

- 13) Add legends for different color points, and add descriptions for the rectangles in grey line in the subfigures in Fig.7.

Thanks for your advice. We have updated the legends and descriptions in Fig 7.

- 13) "with the rain rate class rising” can be refined as “as the rainfall rate increases”.

Thanks for your advice. We have refined it and checked in the whole manuscript.

- 14) Refine sentence on line 478-479.

We have refined as “Above all, the proposed classification of stratiform and convective rainfall is suitable for Qilian Mountains, which is applicable to the precipitation in the arid and semi-arid regions.”.

- 15) “Fig 1” needs to be considered for better presenting sites information.

Thanks for your advice. We have changed Fig 1 with bigger size of sites and smaller areas in the map, which better presents the sites information.

- 16) The differences from different sites can be described more clearly in the Conclusion section.

Thanks for your advice. We have revised Conclusion section, which described the differences from four aspects including different rainfall rates and types, as well Z-R relationship.

- 17) Some key raindrop parameters can be reported in the Analysis section, such as 3.4 Section reflecting the differences in different rain types.

Thanks for your advice. We have considered some key raindrop parameters, but there are six sites showing the values, which makes it hard to choose site or the average values of sites. We will add the key parameters of typical site to report the differences in different
rain types. And we also prepare another manuscript chosen one site to indicate the
differences with other areas. We think it will be more clearly reported with some key
raindrop parameters’ values.

- 18) Line 320: “based on the classification ideas of Chen and Saurabh”, Saurabh is not
shown in the part of classification method. Please check this sentence.

Thanks for your comment. “based on the classification ideas of Chen and Saurabh” should
be revised as “based on the classification ideas of Chen et al. (2013) and Das et al.
(2018)”

- 19) Check the accuracy of the subscripts in the manuscript.

Thanks for your comment. We have revised the subscripts in the whole manuscript.