

Interactive comment on “Stratification observed by the in situ measurements from the Swarm satellites” by Xiuying Wang et al.

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We thank the referee for reviewing the paper and giving us valuable suggestions.

The one by one response to the suggestions is given below.

(1) We will give a detail description on the process to detect the stratification event in our modification paper.

A short explanation is given here.

As the plasma data from Swarm satellites is 2 Hz sampling rate, it is too complicated to compare these high sampling rate data directly. Therefore, the data along the orbit track are down sampled, and then we compare the down sampled data. For example,

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we calculate the average between latitude [-5,-4), and compare the average data from the two satellites. In this way, all the cases that average from Swarm B is greater than that from Swarm A are identified. To prevent the occasionally variation of the data, continuous 5 points with positive data difference, namely 5 degree latitude, is defined as an event.

We will add the F3 layer concept in introduction section in the modification paper.

(2) Page 1, line 23. We accept the suggestion and will modify the paper.

(3) Sorry for the mistake. We re-downloaded the indices data and will re-draw the plots in the modification paper.

(4) We thank the referee for pointing out the mistakes and grammar errors. We will modify all of them and improve the paper in the revision version.

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