Review of AMT-2017-401
By V. Bringi, M. Thurai and D. Baumgardner
Manuscript Title – Raindrop Fall Velocities from an Optical Array Probe and 2D-Video Disdrometer.

This manuscript reports on raindrop fall velocity measurements by using two different instruments: a MPS (Meteorological Particle Spectrometer) which measures drops in the 0.1-3 mm range, and the wildly used 2DVD (two-Dimensional Video Disdrometer), which measures size and fall velocity of drops between 0 and 10 mm. The MPS and 2DDVD were used to measure fall velocity of drops in the 0.1-2 and larger than 0.7 mm diameter range. The overlapping region 0.7-2 mm diameter was used to cross-validate the two measurements.
Three different case studies were analyzed in order to relate the properties of the drop fall velocity to different precipitation systems (one stratiform, one squall line and one super-cell case with low and high turbulence associate for the first two and the third case, respectively).
The paper is linear and quite easy to read. I have only one major comment that can give a contribution, in my opinion, to the generalization of the results. It is reported below together with minor comments that, once addressed, will allow the publication of the paper on the Atmospheric Measurement Techniques journal.

Major comment.

- Section 2.2: in the Section 2.1 the authors investigated a stratiform case, while in the Section 2.2 a squall line and a super-cell case. The squall line case reported generally low rainfall rate and turbulence (comparable to the values registered in the stratiform case). It could be useful, in my opinion add (or substitute) a convective event, a sort a middle point between a convective and tornadic case, in order to have a general overview of the characteristics of drop fall velocity in a broader range of precipitation systems.

Minor comments.

- Line 141: what does it mean that the finite bin width causes a spread of 0.5 m/s? Can the authors explain better? The same is reported in other parts of the text.

- Lines 211-215: what is the explanation that the authors give to the decrease of fall speed during the most intense wind and rainfall rate? Does it can be related to the presence of ascending flow?

- Lines 224-225: similar to the previous comment. How do they justify the decrease of fall speed when *E* (turbulence) increases?

- Panel (b) of Figures 2 and 4: the rain rate should be reported on the right y-axis avoiding the necessity to show its values scaled on a factor ten.

- Figure 2a: the y-axis limit should not exceed 10 m/s to improve the detail of the plot.