Sir,

I thank you for the meticulous review of the paper and for your suggestions.

The Hilbert Huang Transform (HHT) is an empirically based data- analysis method proposed Norden E. Huang in 1996. HHT can be used for processing non-stationary and nonlinear signals. Earlier FFT, wavelets and adaptive moments estimation methods were used and the results were published. This method is applied to Indian MST radar signals for analysis for the first time.

An algorithm was developed to plot the Doppler spectra using both FFT and HHT and further the peak was identified using 3 point moving average method and adaptive moments estimation technique. (Anandan, V. K., et al. "An adaptive moments estimation technique applied to MST radar echoes." Journal of Atmospheric and Oceanic Technology 22.4 (2005): 396-408 We further compared our results with the ADP (Atmospheric Data Processor) software that is already in use at NARL, India to validate for true peak identification and detection. .

We verified for various sets of MST data and validated the results and observed that Doppler estimation using HHT is regarded as more accurate that FFT. As all the results cannot be accommodated in this paper , we have shown the results for two sets of data only. But still we are in the process of validating the results with GPS Radiosonde data that is assumed to be more precise. Presently this work is being carried out.

A typical value for SD is around 0.21 to 0.3. We have taken the value as 0.21 as it is minimum value . But we have tried for other different values also for trial and there was no significant difference in the IMF's.

The amount of resolution depends on the clarity of enabling the algorithm to identify and detect the true peak. It was observed that the developed algorithm is intelligent enough to do the job of identifying the true peak and this was tested for different range bins and a paper was presented at International Union of Radio Science (URSI), 3rd URSI Regional Conference on Radio Science,1 - 4 March 2017 TIRUPATI, India.

Regarding the minor modifications suggested such as kms, rephrasing the sentences and about MST radar systems and data formats and specifications and parameters, references, clarity of figures etc, I would add and modify them suitably.

Thank You Sir.