

Comments on the paper “Comparison of meteor radar and TIDI winds in the Brazilian equatorial region” by Ana Roberta Paulino, Delis Otildes Rodrigues, Igo Paulino, Lourivaldo Mota Lima, Ricardo Arlen Buriti, Paulo Prado Batista, Aaron Ridley, and Chen Wu.

The theme of this study is relevant for the journal. However, the analysis is poorly described and is not accurate. The study needs additional data processing and more comprehensive analysis.

Detail comments

Abstract. The authors write in the abstract that they use a grid of -10 - +10 degrees. However, the reader find in the text, that a grid of -20 - +20 degrees was used.

1. The first question that naturally arises: why 2006 year, why only 2006?
2. According to the rules for the TIDI data analysis the authors should clearly indicate the data type and the data version used for the analysis. “It is recommended that TIDI data users specify these version numbers when publishing results to avoid any uncertainty related to the origin of the data.”
3. The authors do not provide a detail description of the TIDI data processing. It is not clear what time interval they use to estimate the TIDI mean winds and how they estimate the winds. The correct procedure employs at least a 60-day time interval. Even the 60-day time interval is not always enough. A few gaps in the local time coverage could be obtained. It is not clear: how the authors deal with gaps, how the authors deal with seasonal changes and long-period variations.
4. It is not clear why the authors presented fig.1. The TIDI instantaneous profile variability is well known (see, references in the manuscript). The comparison is doubtful as described by the authors.
5. Page 5. Incorrect reference to John et al. (2011). They used much longer time interval to calculate the wind profiles.
6. Fig.7 The authors use the fitting of the meteor hourly mean winds but the separate TIDI profile data. This approach does not take into account that the TIDI data may provide many profiles for some local hours and significantly fewer for the others.
7. The authors write: “**Figure 7 and 8 obey a statistical Gaussian distribution**”. This is an incorrect statement. Please, change.

8. Conclusions

Ln. 150. The authors draw very general conclusions based on a couple of examples analyzed in the work. It is even impossible to say about any statistical analysis. Therefore, I propose to remove this and the next one conclusion from the text.

Ln. 170. The authors state, that: “Extending the temporal window for integrating the daily wind from the TIDI measurements, the behaviours approaches each other”
Sorry, I didn’t find this type of an analysis in the text.

Table 1. The authors state that the TIDI wind data obey the Gaussian distribution. Please, provide statistical arguments for this statement. In fact, it is not necessary to have the Gaussian distribution to find the mean and standard deviation.