Atmospheric Measurement Techniques Discussions

Atmos. Meas. Tech. Discuss., referee comment RC3
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Comment on amt-2021-4

Anonymous Referee #2

Referee comment on "Intercomparison review of IPWV retrieved from INSAT-3DR sounder, GNSS and CAMS reanalysis data" by Ramashray Yadav et al., Atmos. Meas. Tech. Discuss., https://doi.org/10.5194/amt-2021-4-RC3, 2021

Review of “Inter-comparison of retrievals of Integrated Precipitable Water Vapour IPWV) made by INSAT-3DR satellite-borne Infrared Radiometer Sounding and CAMS reanalysis data with ground-based Indian GNSS data”

This paper presents a validation task of two IPWV (integrated precipitable water vapour) products (from INSAT-3DR and CAMS) using as reference ground-based data at 19 Indian GNSS stations. The novelty of the study is not high, but the obtained results are interesting to know more about the satellite and reanalysis uncertainties and to try to improve them. In this sense, the paper fits with the scope of the journal and it should be published after some revisions.
The manuscript is full of errors and typos, e.g., the format of citations varies in the text, the tables appear all together at the end of Section 2, while all the figures appear at the end of Section 3, making the reading difficult for the reader.
The introduction must be improved, since it is not clearly motivating the purpose of the objectives of the paper. The objectives should be moved from Section 3 to the introduction.

Here some minor comments:
Title: Could be shorter? There is a lack of parenthesis in IPWV too.
L25: CASMS?
L43, L51 and L84: IPWV has been defined before in Line 34.
L44: column
L77: the citation format (Perez-Ramirez, D. et al. 2014) is not appropriate.
L84: Precipitable instead of perceptible.
L107: If the reference value is the GNSS data, i.e. Mi, the MB should be calculated as the mean of the Oi-Mi differences instead of Mi-Oi differences.
L206: how this interpolation is done?