

Dear Referee#2,

thank you very much for your comments. Find below the referee comments in black and the authors response in blue.

- p.1 l.15: It is not clear that variability mean standard deviation here.

We changed that to: "On average, the TCWV standard deviation is about 15% regarding the daily mean."

- p.2 l. 12: The influence of precipitation cannot be neglected for MWR measurements.

We changed the sentence to: "The influence of clouds and precipitation can be neglected for GNSS observations"

- p.3 l.3: "can only [be] provided"

We changed that.

- p.4 l.13 / Fig. 2: the text says mean TCWV while the figure caption says median

We changed that to median in the text.

- p.4 l.15: The meaning of the last sentence is not clear to me. Do you mean: TCWV at 95% of the stations varies between -5% and +5%?

Yes, you are right. Thanks for the suggestion, be adopted it.

- Fig. 8: caption: positive: red, negative: blue

We changed that.

- p.9 l.5: there is a typo: SDS instead of DSD

We changed that.

- p.9 l.17: typo: "where" instead of "were"

Thanks, we changed that.

- Chapt. 5: Please describe shortly how you decide between clear sky and cloudy cases.

We included: "The cloud information was extracted from the operational MERIS cloud mask. For the investigation in this and the next chapter, the corresponding MERIS pixel was spatially collocated for each GNSS observation."

- Fig. 9: "Histogram of [DSD]" instead of bias

We changed that

- p.11, l.2: "...has to be accounted for [] the interpretation..."

We changed it to: "The fact that TCWV derived from instruments like MERIS and MODIS is limited to cloud-free areas has to be considered in the interpretation of trend analysis."

- p.12, l.5: typo: rain gouge instead of rain gauge

We changed that.