

Interactive comment on “Quality assessment of integrated water vapour measurements at St. Petersburg site, Russia: FTIR vs. MW and GPS techniques” by Yana A. Virolainen et al.

Anonymous Referee #1

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The manuscript describes an assessment of 3 remote sensing techniques for measuring integrated water vapor. These measurements span different but overlapping time periods and are located at the Peterhof NDACC site. They look at specific instrument comparisons and statistical comparisons for the ensemble. They investigate wet/dry biases, effect of distance and time of measurements. They explore two methods for the FTIR retrieval and find a robust correlation that can be used to remove the small bias. The conclusions show excellent agreement among the instruments consistent with similar investigations.

Overall this is an excellent paper very nearly ready for publication. This reviewer found

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only one point that should have some clarification. Pg 4 line 24 the use of the ratio measurement noise to DOFS (also DOFS should be capitalized) with a cutoff of unity as a criterion for acceptable retrievals is not universal or necessarily intuitive and requires some definition or rationalization.

This manuscript represents excellent and complete work.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2017-135, 2017.

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