

Atmos. Meas. Tech. Discuss., community comment CC1  
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## Comment on amt-2021-305

Yoav Rubin

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Community comment on "Water vapor estimation based on 1-year data of E-band millimeter wave link in North China" by Siming Zheng et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2021-305-CC1>, 2022

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In this paper, the authors examined the potential for humidity measurements using microwaves in the E-Band frequency range. I find it very exciting to see such high performance when you take such a long link in high frequencies. It is remarkable to compare seasons with such high temporal resolution and such high performance. I think these research findings are important and worth publishing.

- Section 2.2: It is not clear how did you choose the period for calibration. How and for how long do you choose the period for estimating the median before calculating the humidity? It seems that you choose the dry period of each season. If so, why did you choose this approach? have you tried different approaches/periods?

I think there needs to be more information about the method you used for retrieving the humidity.

- In section 2.1 you mentioned a very interesting point regarding the differences between RSLm at different seasons. I think it is one of your main conclusion that you should pay more attention to it. What are the main causes for these inter-seasonal changes? When do you see the sharpest changes? This information can be very helpful in the future for operational purposes.

\*This part of section 2.1 is related to the ref values for calibration in section 2.2. This order can be confusing. Maybe you should talk about it after explaining the "Principles of Estimating Water Vapor"