



EGUsphere, referee comment RC2
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Comment on egusphere-2022-532

Anonymous Referee #2

Referee comment on "Assessing and mitigating the radar–radar interference in the German C-band weather radar network" by Michael Frech et al., EGU sphere, <https://doi.org/10.5194/egusphere-2022-532-RC2>, 2022

The paper investigates radar-to-radar interferences on the national German weather radar network operated by DWD. Experimenting with radar located in Southern Germany by setting up dedicated scans, the authors demonstrate that interferences are strongest when close radars operate within 15 MHz. The authors also showed that the "Radar Tango" scan strategy can reduce interferences.

The work is of interest for operational applications in densely populated weather radar areas operating at the same band. The study is scientifically based and the research is quite clearly exposed. Hereafter, some remarks that can be improved clearness.

Major remarks

RFIs at C-band are nowadays widespread in Europe. The study focuses on RFIs caused by other weather radars. In the data analysis, it is not clear how, in the data analysis, wifi RFIs are distinguished from weather radar ones. The amount of wifi RFIs can be partially inferred by Figure 6, where about 200 bins are classified as disturbed.

A short description of current meteorological conditions, focusing on atmospheric refractivity, could help to better interpret the analysis. Moreover, it is unclear which PW is set up in the experimental scans.

Figure 6 and Figure 7 summarize the number and properties of disturbed bins: RhoHV shows a wide variability: it's worthing to add some comments trying to explain possible causes.

The German radar network shows large overlapping areas where 2D or even 3D winds can

be retrieved. Do the authors believe that the "Radar Tango" scan strategy affects or limits such retrieval? The reviewer suggests a discussion on the possible drawbacks of "Radar Tango".

Minor remarks

Figure 1 - Add scale bar and North Arrow, please.

Figure 2 - Add scale bar and North Arrow, please. Adding distance in km at each arrow could improve clearness.

Figure 6 - change "Boxplot of the number of disturbed pixels" to "Boxplot of the number of disturbed bins", please

Figure 6 and Figure 7 should report the same range on both axes.