

Interactive comment on “Enhancing the spatio-temporal features of polar mesosphere summer echoes using coherent MIMO and radar imaging at MAARSY” by Juan Miguel Urco et al.

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This paper introduces the new technique of MIMO and two radar imaging methods to improve the spatial and temporal resolution of PMSE imaging. Two PMSE events are presented. One shows small features drifting with winds, and another displays gravity waves. The paper is well written. I could recommend its publication after minor revisions.

1. By inspecting Figures 3-6, the improvement from SIMO to MIMO is significantly smaller than that between Capon and MaxEnt. Can the authors comment on it? 2. The small features drifting with winds in event 1 seem like so called ripples from gravity

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wave breaking. Ripples often show up in airglow and PMCs.

Hecht (2004), Instability layers and airglow imaging, Review of Geophysics.

3. page 1, line 10 "goodness" → "advantage"

4. page 3, line 16, "e.g., see Latteck..."

5. page 10, line 9, "e.g., M. 2013"?

6. page 10, line 14, "475 m instead of 163 m".

7. The font sizes in Figure 4 and 6 need to be enlarged.

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