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Atmospheric Measurement Techniques Discussions

Interactive comment on "G-band atmospheric radars: new frontiers in cloud physics" *by* A. Battaglia et al.

Anonymous Referee #3

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This article describes and promotes high frequency G Band radar technology for solving problems in cloud physics and cloud measurements. I do not know of many experts in this frequency and hence it is by definition innovative and fresh. The article describes 3 application gaps where this technology could be applied, the issues of retrieving cloud properties and prospects for the future.

I find that that article is well organized, well laid out and should be published with very minor additions.

1. In section 2, while the chapter is laid out in terms of applications and the gaps identified, I found that it read like technology looking for a home and wishing that the authors described the requirements first, then the gaps then the technology to fill the

gap. The requirements discussion could be articulated better. I suggest a paragraph or two either at the beginning or t the end of section 2, to look at the problem from the requirements perspective instead of the gaps perspective though the latter is very valuable. This is a bit picky comment.

2. It is only at the end that I realized that the authors were focussed on a ground base system and not a spaceborne system. It would be useful to add a sentence in the introduction on this.

3. Several times, the authors refer to "match beams and volumes" and its importance. It is never clear whether this refers to single match volumes and beams or matching through aggregation of beams compared to a single volume or beam. Do the side lobes need to be matched as well? What mis-match is tolerable?

4. In section 4, the word "properly" is used several times and it is not clear what proper means - in terms of process or result

Maybe double posted due to web site behaviour.

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