

Interactive
Comment

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

A. Battaglia et al.

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We agree with the reviewer. Indeed at the very beginning of Sect.2 we state: ‘We have identified three areas where radars operated in the G-band are expected to provide additional information: 1) boundary layer (BL) clouds; 2) cirrus and mid-level ice clouds; 3) precipitating snow.’ We expect that G-band can be part of the solution to characterize these cloud types, i.e. they can provide additional information for solving the microphysical deadlock. The scientific gaps identified in the paper are therefore technology-driven but we have highlighted the fact that the discussed three areas are certainly of fundamental importance for cloud physics. The critical need that the G-band technology satisfies is to open the way towards differential attenuation techniques

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for the above-mentioned cloud types. The attenuation signal is much better related to the cloud mass content than other radar variables (reflectivities) and it should therefore improve the radar profiling capabilities. We will revise the Section trying to make this point clear.

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 321, 2014.

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