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## Interactive comment on "On cloud ice induced absorption and polarisation effects in microwave limb sounding" by P. Eriksson and B. Rydberg

## **Anonymous Referee #2**

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This paper gives an overview of cloud scattering effects on millimeter radiation signals. It appears thorough and the authors demonstrate a good working knowledge of the subject. It also presents some practical design features that one should use in building radiometers to optimize measuring ice water content that minimizes its dependency on signal polarization. My one question relates to the comment line 6 on page 1508 that says (paraphrase) correlation between Di and Q disappear for muli scattering where the high tau have mainly negative DI and Q is scattered about zero in figure 5. To me figure 5 shows DI as always positive and Q is always negative (albeit both are trending toward zero for tau > 0.5).

Interactive comment on Atmos. Meas. Tech. Discuss., 4, 1493, 2011.

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