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AMTD

4, C730-C732, 2011

Interactive Comment

Interactive comment on "First correlated measurements of the shape and scattering properties of cloud particles using the new Particle Habit Imaging and Polar Scattering (PHIPS) probe" by A. Abdelmonem et al.

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Along a series of comments, I will try to cover the points exited by the Referee #1 on this paper. It made me glad to receive such meaningful and constructive comments.

These comments (from Referee #1) were received during the time of producing the discussion version of the paper. However, some of them are already considered and included in the published discussion version of the paper and the rest will be discussed here.

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Interactive Discussion

Discussion Paper



Notes: - The page and line numbers will be given in agreement with the page and line numbers of the published discussion version of the paper. - Replies on Referee's comments can be found as side comments included in the attached pdf file. - A new version of Figure (2) is attached along with its modified caption.

Please also note the supplement to this comment: http://www.atmos-meas-tech-discuss.net/4/C730/2011/amtd-4-C730-2011-supplement.pdf

Interactive comment on Atmos. Meas. Tech. Discuss., 4, 2883, 2011.

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Flux of particles Imaging plane DOF (camera1) FOV, (camera1) Scattering plane Particle detector direction Laserheam of beam waist (w) FOY (Camera2) Symmetry axis Pinhole projection on the imaging plan at the scattering center (a) Perspective view at the scattering center Laser cross-section at the FOV_w scattering center (w) (b) Cross sectional view on the imaging plane (c) Effective detection volume (d) Cross sectional view perpendicular to

Figure 2. The intersection of the laser beam, the FOV x DOF and the projection of the pinhole (placed in the particle detector optics) at the scattering center. (a) A perspective view, (b) a cross sectional view of on the imaging plane at the scattering center, (d) a cross sectional view perpendicular to the laser beam at the scattering center and (c) the effective detection volume of PHIPS. DOF: Depth-offield, FOV $_{\rm IV}$: Field-of-view height, and FOV $_{\rm IV}$: Field-of-view width. DOF (camera2), FOV $_{\rm IV}$ (camera1) are not assigned on the drawing for clearness.

Fig. 1.

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