

Preliminary retrieved results from the quality controlled data-base collected by the ADMIRARI radiometer during CHUVA campaign 2010 in Alcantara. The retrieval data files have the following name: M03Dxx_ADMI_lev02.RET with xx the day. The first two rows in the files are legends indicating the content. The file data content comprise of 11 columns:

- column 1: UTC hour (e.g. 14.5 means 14:30 UTC of the corresponding day)
- column 2: Quality index (QI<6 indicates a very good retrieval, QI<36 reliable retrievals, otherwise unreliable).
- column 3: The average Freezing Level for the retrievals, unit [km].
- column 4: Integrated Water Vapor for the observation angle, unit [kg/m²].
- column 5: RMSE for the Integrated Water Vapor, unit [kg/m²].
- column 6: Cloud Liquid Water Path for the observation angle, unit [kg/m²].
- column 7: RMSE for the Cloud Liquid Water Path, unit [kg/m²].
- column 8: Rain Liquid Water Path for the observation angle, unit [kg/m²].
- column 9: RMSE for the Rain Liquid Water Path, unit [kg/m²].
- column10: Elevation angle of the corresponding retrievals, unit [degree].
- column11: Azimuth angle of the corresponding retrievals, unit [degree].

NOTE 1: Un-retrieved values are indicated by NaN.

NOTE 2: Reference for the utilized retrieval method:

Battaglia, A., P. Saavedra, T. Rose, and C. Simmer:

"Characterization

of precipitating clouds by ground-based measurements with the triple-frequency polarized microwave radiometer ADMIRARI", J. Appl. Meteorol., {49}(3), pp. 394-414, 2010.

Saavedra, P., A. Battaglia, C. Simmer: "Partitioning of cloud and rain

water content by ground-based observations with the radiometer ADMIRARI

in synergy with a micro rain radar", J. Geophys. Res., submitted, 2011.

NOTE 3: Why there are un-retrieved values? Not because the measurements were

wrong, but because the a-priori data base does not represent properly the measurements and/or Non-uniform beam filling and 3D effects are not considered

by the retrieval method. For an extend and detailed explanation see the following reference:

Battaglia, A., P. Saavedra, C.A. Morales, and C. Simmer:

"Understanding three-dimensional effects in polarized observations

with the ground-based ADMIRARI radiometer during the CHUVA campaign", J. Geophys. Res., doi:10.1029/2010JD015335, 2011.

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