

QUICR Discussion

General comments on current activities ?

How can QUICR better support research addressing the ASR science questions?

In-situ test case library :

IcePro group ? Individual PIs ? European datasets ? We had prepared a questionnaire to help with case selection.

BBHRP / ACRED / RIPBE :

More retrieval techniques ? Focus on sensitivity tests of selected retrieval techniques ? In any case, we need a tool flexible enough that it does not require too much work for PNNL

Perturbed Ensemble Retrievals to understand retrieval uncertainties :

Interested ?

New instruments / complex retrieval techniques: they will provide more constraints that would need to be incorporated in BBHRP – does the RT model allow for that ?

Collaboration with EU groups in general

Building a cloud retrieval case library ...



How can we pick the golden cases without ending up with one case ?

- Class 1 cases :** Excellent PSD measurements (with shattering somewhat mitigated and small particles well measured) + bulk IWC + extinction + radar-lidar (ground, aircraft or space).
- Class 2 cases :** bulk IWC + extinction + radar-lidar (ground, aircraft, or space). Can accept some flaws in the PSD measurements.
- Class 3 cases :** Excellent PSD measurements (with shattering somewhat mitigated and small particles well measured) + radar-lidar (ground, aircraft, or space). Can accept a limited set of bulk measurements (IWC or extinction) if CPI particle habit classification is available to constrain mass-size relationship.
- Class 4 cases :** Good PSD measurements + radar-lidar (either from ground or aircraft). No bulk microphysics available. Maybe we don't want to take a look at these cases if we have a sufficiently large number of class 1 to class 3 cases !



Building a cloud retrieval case library ...



A questionnaire has been constructed and distributed to a few people already
Please contact us if you have datasets of interest – Comments welcome !
We expect to have some ARM infrastructure support to help build that library

Field Experiment	Data PIs	Date and Time Interval	Cloud Type (Liquid, Mixed, Ice, Stratiform ...)	In-Situ Size Distribution Which probes ?	In-Situ Bulk IWC Which probes ?	In-Situ Bulk Extinction Which probes ?	Other In-Situ Probes Which measurement ?	Airborne radar Frequency(ies) ? Doppler ? Other
MT-AFRICA	A. Schwarzenboeck A. Protat	26 August 2010 13:12 - 13:45 UTC 12:45 - 13:00 UTC	Stratiform Ice	FSSP-100, 2D-S, CIP, PIP	No	No	No	Falcon-20 RASTA 95 GHz, Doppler, multi-beam

**If you are interested please send email to
the co-chairs of QUICR**

Shaocheng Xie : xie2@lnl.gov

Alain Protat : A.Protat@bom.gov.au

