New retrievals: Strengths, limitations and developments

Recent developments in aerosol retrieval techniques

Levy: GEO-LEO synergy of different groups
Seidel: "Beyond AOD" to quantify vertically resolved aerosol absorption
Dubovik: Assessment of multi-angular polarimetry potential
Fougnie: How to account for the effect of the geometry of acquisition on aerosol retrieval performance?
Knobelspiesse: Analysis of simultaneous aerosol / ocean glint retrieval using multiangle observations

New retrievals: Strengths and limitations

What are the most promising retrieval methods to improve aerosol datasets?

- New instruments
 - Are we striking the right balance between developing bespoke methods (for one instrument) and generalised retrievals (that work across several)?
 - What plans are there to adapt existing retrievals to new data sources?
- Reprocessing
 - Are we providing the measurands users need? (e.g. Angstrom vs effective radius vs fine-mode fraction)
 - Is it better to devise complex retrievals that manage difficult circumstances or to focus on the optimal cases with the most information content?
- Synergy
 - How can we make better use of existing observations?
 - What additional observation would add the most value to aerosol data analysis?