Pixel level uncertainties Introduction, seed questions

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AEROSAT discussions on uncertainties

- **Achievements**
    - Clarified the **definition** of uncertainty terms
    - Many **new ideas** about how to estimate uncertainties
    - **Some understanding** of strengths, limitations, usability
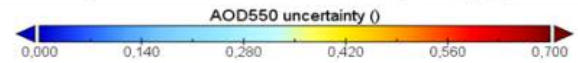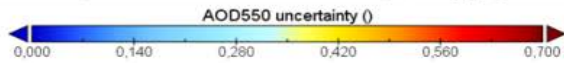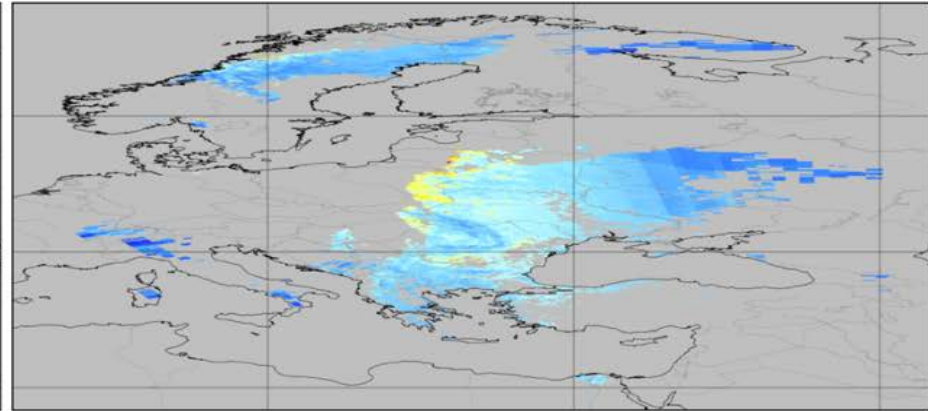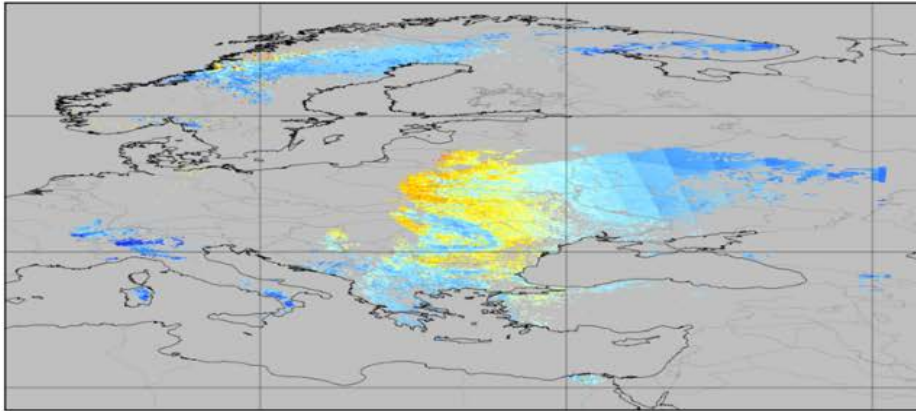   - **Overview paper** / validation framework (led by A. Sayer)

- **Issues started to discuss**
    - QA flags vs. uncertainties (complementary of alternative)
    - Sampling uncertainties (assess with models or GEO)
    - Correlations of uncertainty sources
    - Availability of good reference data (e.g. for properties)
    - Derived parameters: ANG / SSA vs. FMAOD / AAOD
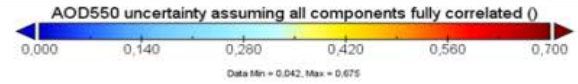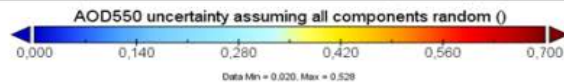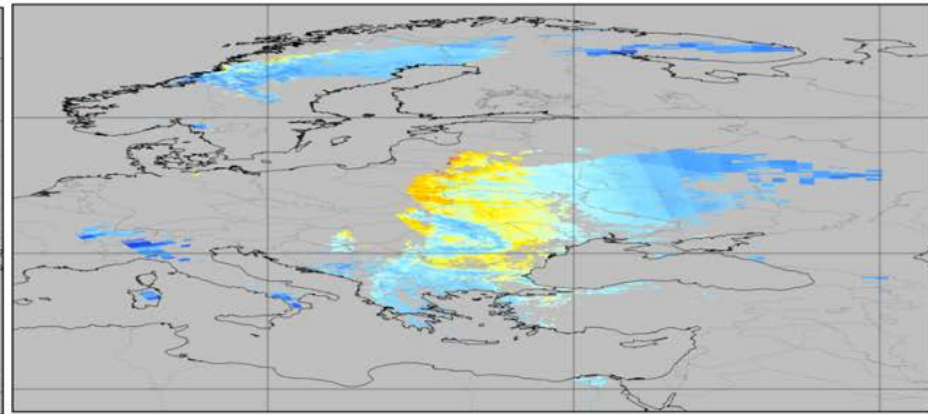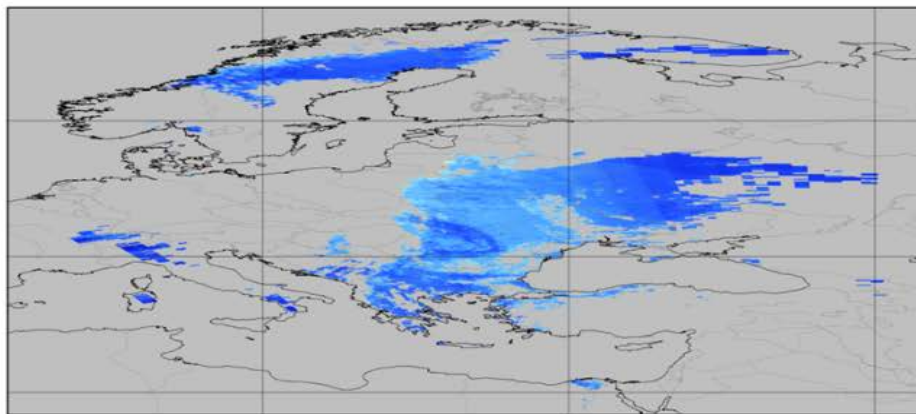
Uncertainty propagation

Propagation to gridded products (poster Popp)

Seed questions

- How do data assimilation users work with uncertainties?

- How do we best validate pixel-level uncertainties?

- How do we propagate uncertainties to gridded products?

- How can we provide uncertainties for derived properties?

- Should we separate uncertainties from sources having different spatio-temporal correlations?