

RTTOV Technical Sub-group

IR cloudy simulations

- Could there be a better way of specifying input cloud data?
- *Currently RTTOV has 5 cloud water particle types:*
 - *Stratus Continental/Maritime*
 - *Cumulus Continental-Clean/Continental-Polluted/Maritime*
- *For ice cloud the preferred parameterisation is based on Anthony Baran's database of optical properties in terms of temperature and IWC.*
- *Inputs are LWC/IWC profile for each water particle type and ice, and cloud fraction profile.*
- Consider introducing a water particle parameterisation similar to the Baran ice scheme.
- We are also looking at alternative cloud overlap options to maximum-random overlap.

Other issues

- Calculate full Stokes vector.
- Consider sub-mm for upcoming ICI.
- Due to issues related to the HDF5 library (e.g. installation of the Fortran interface) we will keep ASCII versions of hi-res IR sounder coefficient files on the website.
- C++ bindings for RTTOV.
- Optimisation of interpolation.