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The assimilation of microwave sounder radiances at ECMWF

Résumé:

This presentation will give an overview on the assimilation of microwave observations at ECMWF with a focus on surface-sensitive radiances and on the handling of biases.

The assimilation of microwave observations in the ECMWF system is currently limited to measurements with no or weak contributions from the surface because of uncertainties in the estimated surface emission and reflection, and because cloud screening over land is more difficult. These uncertainties are particularly relevant over land and sea-ice surfaces. Current status and plans on assimilating observations which are sensitive to the low part of the atmosphere will be discussed.

The correction of systematic errors in satellite radiances relative to the background, which is a short range forecast, and the correction of errors in the radiative transfer will also be reviewed.