Simulating ice crystal formation by convective detrainment and in-situ formation with our new cloud routine for the **GCM ECHAM-HAM**

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Convective vs in-situ



CERES



ECHAM-HAM with new 2 moment cloud microphysics scheme with prognostic cloud cover and improved cirrus scheme

How good is the model?

Model

Satellite derived ice crystal concentrations



Discussions





ICNC satellite vs model









ICNC satellite vs model





X Increasing with decr. temperature





