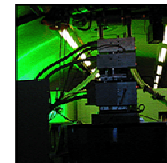
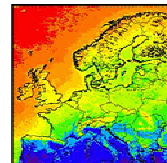
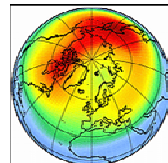


Summary of working group 2

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A Initiation of cirrus clouds in GCMs

Questions:

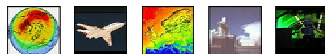
- What is the balance or relative importance of homogeneous vs. heterogeneous nucleation processes
- How should they be divided between synoptic situations?
Should we split up microphysic parametrisations for

deep convection situations	W_{conv}
large scale situations	W_{ls}

Do we need additionally mesoscale or gravity wave induced effects?

Feeling of the group: focus first on homogeneous nucleation

- Are the spectra of vertical velocity and the aerosol concentration enough to model number densities of ice crystals? Do we need other informations?



B: Development of cirrus clouds

Subgrid evolution of cirrus cloud:

We need to represent clear air ice supersaturation

- Should we represent ice supersaturation inside the cloud?

Status: to model the evolution (in/out) separately we need one additional prog. Eq.

Worth the effort?

Is the adjustment timescale long compared to model timestep?

First approach: model clear air supersaturation, set S_i (in C_i) = 100%

long term goal: new prognostic equation, new degree of freedom:
better formulation of dissipation/sedimentation

C: Misc

- What kind of pdfs do we need to model subgrid processes?
- Numerics?
- Different sedimentation schemes?
- Vertical subgrid fluctuations?



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