

Towards the assessment of uncertainties in the implementation of Second Indirect Aerosols Effect in climate models

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ICTP, 20 October 2014

Aerosol indirect effect

Uncertainties in the parameterizations

1. The effect in a nutshell.
Seems simple, but...

Low aerosol amount

-> Low CCN

-> Larger drop size

-> More precipitation



High aerosol amount

-> High CCN

-> Smaller drop size

-> Less precipitation



2.... its parameterization in models requires a whole cascade of assumptions, many of which are poorly constrained by observations or theory.

3. Thus **our goal** is to implement a parameterization for the aerosol indirect effect in the warm rain autoconversion process of a regional climate model and then systematically investigate the uncertainty due to each assumption.

*The poster will present the parameterization chain and some initial results of the scheme.

