



## **Formation and evolution of midlatitude frontal cirrus clouds: a CIRRUS-III 2006 case study**

Gensch, I. (1), Bunz, H. (2), Baumgardner, D. (3), Curtius, J. (4), de Reus, M. (4), Schiller, C. (1), **Krämer, M. (1)**

(1) FZ Jülich, Germany, (2) FZ Karlsruhe, Germany, (3) Univ. Mexico City, Mexico, (4) Univ. Mainz, Germany

The CIRRUS-III field experiment took place from 17-29 November 2006 over Northern Europe, covering latitudes from 45-70°N and altitudes from 7-12km. Thin cirrus clouds and contrails embedded in cirrus clouds, observed during all six flights, were probed with an extensive instrumentation on-board the *enviroscope* Learjet. Ice microphysics measurements mostly show relatively low ice number densities, in the temperature range 210-245K. We present here model studies designed to investigate potential scenarios of formation and evolution of midlatitude frontal cirrus clouds. The model results help to give insight into the processes, which are important for the development of this type of cirrus clouds in this temperature regime.