



## **Chemical-dynamical feedback of the 11-year solar signal in a Chemistry-Climate Model Simulation**

**A. Kubin** (1), U. Langematz (1), Ch. Brühl (2)

(1) Freie Universität Berlin, Germany (2) Max-Planck-Institut für Chemie Mainz, Germany

We present a model study of the 11-year solar signal performed with the new chemistry climate model system ECHAM5/MESSy. Two equilibrium runs were performed with prescribed 11-year solar cycle maximum and minimum irradiance conditions, respectively, and using climatological SSTs as lower boundary condition. These experiments are part of a series of model simulations which is intended to investigate the solar influence on the stratospheric and tropospheric circulation with an increasing degree of dynamical or chemical feedback. The dynamical and chemical response to the applied forcing is analysed in detail with special focus on the solar signal in the troposphere.