



On the diversity of chemistry transport models

M.G. Schultz

Forschungszentrum Jülich, ICG-2 - Troposphere, Jülich, Germany (m.schultz@fz-juelich.de, +49 2461 61 5346)

Recent coordinated multi-model experiments in the framework of the European ACCENT network or the task force on hemispheric transport of air pollution revealed considerable scatter among various state-of-the-art chemistry transport models with respect to the simulation of tropospheric ozone and other gases. While it will be critical for some air quality applications to obtain an accurate description of present-day ozone concentrations, it is often even more important to obtain reliable estimates for model sensitivities, i.e. to assess if a model is able to capture the short-term to decadal variability of trace gas concentrations and may therefore be used to assess potential future changes in the atmospheric composition. I will present some analysis of a multitude of model simulations on tropospheric ozone and passive tracers indicating that the sensitivity of present models towards changes may be lower than the sensitivity of the real atmosphere. This could have important consequences for future air quality and climate assessments.