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A New Air Quality Model System for Austria

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A new model system that is able to forecast air quality in Austria and the surroundings is build up. It uses the operational regional weather forecast of the Central Institute for Meteorology and Geodynamics (ZAMG) performed with the model ALADIN. The meteorological fields are combined with an emission model and the photochemical transport model CAMx. Both had been used at BOKU for air quality calculations for the area of interest in previous studies.

The coarse grid of the chemical model covers large parts of Europe with a spatial resolution of about 29 km. By two-way-nesting a spatial resolution of 9.6 km is achieved for the core area. The model system is set up to perform air quality forecasts for two days.

As tests for the model performance, episodes in the summers of 2003 and 2004 were investigated, during which ozone concentrations exceeded air quality thresholds. The model results are compared with measurements.