



## **Modeling air quality over China: Results from the Panda project**

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China faces strong air pollution problems related to rapid economic development in the past decade and increasing demand for energy. Air quality monitoring stations often report high levels of particle matter and ozone all over the country. Knowing its long-term health impacts, air pollution became then a pressing problem not only in China but also in other Asian countries. The PANDA project is a result of cooperation between scientists from Europe and China who joined their efforts for a better understanding of the processes controlling air pollution in China, improve methods for monitoring air quality and elaborate indicators in support of European and Chinese policies.

A modeling system of air pollution is being setup within the PANDA project and include advanced global (MACC, EMEP) and regional (WRF-Chem, EMEP) meteorological and chemical models to analyze and monitor air quality in China. The poster describes the accomplishments obtained within the first year of the project. Model simulations for January and July 2010 are evaluated with satellite measurements (SCIAMACHY NO<sub>2</sub> and MOPITT CO) and in-situ data (O<sub>3</sub>, CO, NO<sub>x</sub>, PM10 and PM2.5) observed at several surface stations in China. Using the WRF-Chem model, we investigate the sensitivity of the model performance to emissions (MACCcity, HTAPv2), horizontal resolution (60km, 20km) and choice of initial and boundary conditions.