



## **First results of a data assimilation system for reactive gases built as part of the GEMS project**

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As part of the GEMS subproject on Global Reactive Gases (GRG) the three chemical transport models (CTM) MOZART, TM5 and MOCAGE have been coupled to ECMWF's integrated forecast system IFS, and the 4D-Var data assimilation system has been extended to include extra chemical fields (CO, NO<sub>x</sub>, O<sub>3</sub>, HCHO, and SO<sub>2</sub>). Here we present some first results from data assimilation experiments carried out with the coupled assimilation system.

A presentations of first scientific results of the coupled system has been submitted to session AS 3.10 "Modelling, Data-Assimilation and Source-Sink Inversion for Operational Atmospheric Composition" and a presentation of technical aspects of the coupled system has been submitted to session CL38 "Earth System Modelling: Strategies and Software"