

## SIMULATION OF AN SO<sub>2</sub> EPISODE IN THE COMPLEX OROGRAPHY OF RIJEKA AREA

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**Abstract:** Rijeka area, the most developed industrial part of the Croatian coast, has very complex orography. On 3 February 2002 a pollution episode occurred in Rijeka. The concentration of SO<sub>2</sub> increased approximately by 300% reaching a measured daily concentration of 225.5 gm<sup>-3</sup>. This high daily concentration continued during the next two days. The refinery and other industrial sources of SO<sub>2</sub> claimed that they did not increase emissions in this period and the city traffic was also of usual intensity. If this is accurate, these higher concentrations are the consequence of specific meteorological conditions.

In this work episode simulations are provided by the three different models two Gaussian i.e. ISCST3 and GALA and one Eulerian i.e. EMEP. The meteorological input for those models is obtained from NWP models ALADIN and HIRLAM respectively. The goal of this work is to analyze meteorological influence on SO<sub>2</sub> episode occurrence based on modelled results in complex orography and possibility to use models in operational episode prediction.