

**COMPARISON OF TWO MODELLING APPROACHES FOR AIR QUALITY
MONITORING FROM THE URBAN SCALE TO THE STREET SCALE.**

F. Tognet¹, L. Rouil¹, G. Cardenas¹, A. Rebours,² I. Rios³, F. Troude³

¹ INERIS, Verneuil en Halatte, France

² AIRPL, Nantes, France

³ COPARLY, Bron, France

Within the general framework of the development of high resolution air quality maps over the cities areas, INERIS (National Institute for Industrial Environment and Risks), AIRPL and COPARLY (Official Air Quality Monitoring Associations for the regions of Nantes and Lyon) led a comparison of two different approaches in order to assess pollutant concentrations (NO_x, NO₂, PM₁₀) due to traffic in the streets. The purpose of the proposed communication deals with this project. The methodologies will be presented as well as the results obtained.

The first method consisted in a nested approach from the national scale to the urban scale. ADMS Urban forced by the regional chemistry transport model CHIMERE applied with a 10km*10km resolution has been used. The second modelling approach involved a street canyon model forced by monitored background pollution data. The streets models selected were the Danish model OSPM for Nantes and the French model SIRANE for Lyon.

Simulations have been carried out over hundred streets for both city centres of Nantes and Lyon. The results were compared with the available observations using several indicators : mean concentration, P98, time series... One of the main conclusion of this work is that despite the differences in the approaches, the obtained results are quite similar in the framework of this study.

EXTENDED ABSTRACT NOT SUPPLIED