

**WINTER AIR POLLUTION EPISODES IN ATHENS.  
THE 13-14/12, 1989 CASE STUDY.**

**P.A. KASSOMENOS and G. KALLOS**

*University of Athens, Department of Applied Physics,  
Panepistimioupolis, Building PHYS-V, GR-15784, Athens.*

**ABSTRACT**

The seasonal variation of air-pollution episodes in Athens indicates that a significant percentage occurs during winter period. In this study an air pollution episode (13<sup>th</sup> – 14<sup>th</sup> of December) is analysed with the aid of a modeling system consisting of the non-hydrostatic meteorological model RAMS and a Lagrangian dispersion model. The meteorological conditions of the examined case were characterised by very weak pressure gradient and nearly neutral stratification in the lower troposphere. It was found that the air pollutants released by area sources remain over Athens for a long time.