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Monitoring of Air Pollution in Cyprus from Space (The 'AIRSPACE' project): Field Campaign Results 2010-2012

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Atmospheric pollution due to particulate matter (PM) is a continuing problem in many areas of Cyprus. This project integrates observations from Lidar, sun-photometers, satellite AOT retrievals and PM10, PM2.5 concentrations with emphasis in urban sites. Aerosol measurements were obtained from four sites (Lemesos, Nicosia, Larnaka, Paphos)where the 'Harvard Impactors' have been already installed for the first time in Cyprus. Specifically, aerosol measurements include 24hr measurements of PM10, PM2.5, EC-OC, and NITRATE. The vertical distribution of aerosols obtained from Lidar and AOT retrieved from the MODIS sensor and CIMEL sun-photometer are exploited and the results are used to calculate estimated PM concentrations by using MODIS retrievals above Cyprus. To statistically strengthen this approach data sets from different types of aerosols were used. Some of the results are coupled with simulations from a chemical model in order to gain in-depth information of the air pollution situation in Cyprus.

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