



Spectral Analysis of Total Suspended Particles time series in connection with air circulation over south-eastern part of Europe

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The aim of the paper is to analyze the relationship between air pollution and the meteorology of air masses. Therefore the data sets of daily TSP (Total Suspended Particles) concentrations for a few urban sites from chosen area were analyzed. A general decreasing tendency of TSP concentrations variability was observed for the 2001-2005 interval. Spectral and time-frequency analyses have shown a dominant one year periodicity and a synoptic periodicity (seven days). For some sites other periodicities were found they being explained by both regional and local influences. In order to determine the atmospheric transport of pollutants the air masses trajectories were studied for the periods with maximum TSP concentrations by, using HYSPLIT 4 model. The results have shown the correlation between regional and temporal variability of air masses trajectories and extremes of TSP concentrations.