Analysis of the dispersion of aerosol in Cubatão-SP using remote sensing techniques

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Aerosls are emitted by a several sources, these can be antropogenic – emitted by human activities - or natural.Their sudies are an important, because its impacts on the dynamics of the Earth's atmosphere are huge. The study area have one of the most important industrial complex in the state of Sao Paulo. In the past the city of Cubatão was known as "death valey", due to the environmental problems caused by the high levels of pollutants that was emitted by the industries. Following this event, regulatory laws on atmospheric emissions were developed, both at the state and federal levels. Today, although Cubatão has lower levels of pollution and controlled industrial emissions, but it is possible to observe overcoming air quality standards. Based on the presented context, the present work aims to conduct a study of the dispersion of aerosols in the region of Cubatão-SP using several techniques, such as: remote sensing (elastic lidar and wind lidar), satellite data, air quality information and also simulations of air masses using a model.