

Atmospheric Inverse Problems at CMM

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Abstract

I present current projects and applications of Inverse Problems to Atmospheric Sciences at the Center of Mathematical Modeling in Santiago de Chile. Main applications concern environmental problems in mining and air-quality in Latin American megacities. The main problems are assimilation of satellite and meteorological measurements to adjust source emissions inventories and the characterization of aerosols. Inverse problems of reconstruction of sources and parameters from partial measurements in the transport equation appear naturally both in remote sensing and aerosol models.