

Climate Test Bed (CTB) and EMC Present

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Aerosol and Weather and Climate: Is it Worth Considering?

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Abstract

Aerosol has been a hot topic in climate research as the largest uncertain source of external forcing, which appears to be remote from our operational weather and climate forecasting. Increasing evidences, however, have emerged revealing so significant impact that ought to be accounted for, at least over regions of heavy pollution like China, India and other developing countries. In this talk, I will present an overview of the various effects of aerosol on a large array of meteorological variables: cloud, precipitation, temperature, wind, circulation, thunderstorms and even fog occurrence, etc. The results were obtained from ground observations in US and China, and around globe from satellite.