



Using satellite observations to investigate natural aerosol loading

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The budgets of natural aerosols, including organic aerosol and dust, are poorly constrained, yet these particles can dominate aerosol loading in various environments and represent a key component of the Earth's radiative balance. In this presentation, I will discuss our efforts to use satellite observations of aerosol optical depth from MODIS, MISR and CALIOP to constrain the global budgets of 1) marine aerosol 2) continental organic aerosol and 3) dust export and long range transport from North Africa. These satellite observations are combined with in situ observations from field campaigns and AERONET as well as with a global chemical transport model (GEOS-Chem) to provide a more complete picture of global aerosol loading.