

**Date:** December 9<sup>th</sup>, 2005

**Time:** 11:00 AM

**Location:** Maryland Hall 110

**Speaker:** Dr. Yogesh C. Sud  
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**Title:** “Parameterizing Aerosol Cloud Interaction  
in Climate Models”

**Abstract**

Increasing use of fossil fuels around the world has led to large increases in the aerosol loading of the atmosphere, with a potentially strong impact on the climate system. This is in addition to the effects of increasing greenhouse gases, such as carbon dioxide, methane, and other trace gases. Present-day climate models, however, are unable to accurately represent the physical processes involved, which include not only the radiative effects of aerosols, but also their effects on cloud formation and precipitation efficiency. Our discussion will examine and compare various ways of including these processes in Earth-system general circulation models so as to produce more reliable climate simulations.