



SACRAMENTO STATE

Department of Physics & Astronomy Spring 2008

Physics Colloquium Series

“Asian Aerosol Impacts on the Global Climate”

The United Nations is currently holding a major international meeting in an attempt to redraft and extend the Kyoto Climate Accords while incorporating the evidence of the Inter- Governmental Panel on Climate Change (IPCC) analyses of April, 2007. Confounding this effort are the uncertainties in the impact of fine particles on climate change, and estimated 70% to 80% of the total uncertainties in the Global Climate Models (GCMs). In an effort to reduce these uncertainties, we are participating in studies to analyze aerosols from Asia, and their impact on the United States and the critical Greenland Ice Sheet. Our approaches are based on applications of some basic physics that, in these applications, amounts to cutting-edge research. Some of the early findings are that Chinese aerosols are so sooty that they heat the earth, not cool it as do US and European aerosols. It is suspected that direct transport of soot across the North Pole is a major factor in dust deposition in the Greenland ice cores.

Thomas Cahill

Prof. of Physics and Atmospheric Sciences, and Head, DELTA Group, UC Davis*

Thursday, April 24, 2008

***4:20-5:30 PM MND 1015**

***Note new times this semester**

Open & Free to all Students, Faculty & Public