

CGD SEMINAR



DATE: Tuesday, May 15, 2018

TIME: 11 a.m.

LOCATION: NCAR, 1850 Table Mesa Drive
Mesa Lab, Main Seminar Room

TITLE: CESM1(WACCM) Stratospheric Aerosol
Geoengineering Large Ensemble (GLENS)
Project

SPEAKER: Simone Tilmes, NCAR

ABSTRACT:

This seminar will present an overview of a community project enabling analysis of global and regional changes from stratospheric aerosol geoengineering in the presence of internal climate variability, using a unique 20-member ensemble dataset, produced with CESM1 (WACCM). Unlike earlier studies, performed simulations were designed to achieve multiple simultaneous climate goals, by strategically placing sulfur injections at four different locations in the stratosphere. This advanced approach reduces some of the previously found adverse effects of stratospheric aerosol geoengineering, including uneven cooling between the poles and equator and shifts in tropical precipitation. Detailed analysis of benefits, side effects and risk of geoengineering are possible with this dataset, including the identification of changes in atmosphere, land, ocean, and sea-ice. We invite the broader community to perform in-depth analysis of climate related impacts and to identify processes that lead to changes in the climate system as the result of a strategic application of stratospheric aerosol geoengineering.

Live webcast: <http://ucarconnect.ucar.edu/live>

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