2019 Workshop: CEDAR and Climate Change

Long title
CEDAR and Climate Change
Conveners
S. Nossal
N. Sivadas
Description

The Intergovernmental Panel on Climate Change 1.5 degree report (https://www.ipcc.ch/sr15/) released in October 2018 concluded risks of dire consequences of climate change and that the next decade is critical for transformational change to achieve deep reductions in greenhouse gas emissions to avoid the most serious impacts. This workshop will provide a forum for discussion about ways that the CEDAR community might contribute to global efforts to address climate change. Such efforts could include whole atmosphere studies of climate change processes; identifying aeronomy data sets and techniques that can also provide tropospheric information; continued work to reduce uncertainties in observations to facilitate their use for longer-term comparisons; and ways that the CEDAR community is or could potentially contribute to national and international climate assessment processes. We also welcome presentations relating to communicating climate science to the public.

Agenda

Welcome and Motivation: brief highlights from recent climate assessments

Short presentations:

Stan Solomon - Whole Atmosphere Climate Simulations During different solar conditions & a few comments about the Coupled Model Intercomparison Project.

Joe McInerney – WACCM-X modeling study of middle and upper atmospheric climate over 90 years.

Liying Qian – Trends and Solar Irradiance Effects in the Mesosphere

Titus Yuan – 30 year lidar measurements of mesopause temperatures

Susan Nossal – Hydrogen emission observations over multiple solar cycles & a few comments about uncertainty frameworks used in climate assessments

Discussion: How might the CEDAR community further contribute to global efforts to address climate change?

Justification

This workshop will provide a forum for discussion about ways that the CEDAR community might contribute to global efforts to address climate science. The workshop relates to the following thrusts of the CEDAR strategic plan:

Strategic Thrust #1: Encourage and Undertake a Systems Perspective to Geospace Strategic Thrust #2: Explore Exchange Processes at Interfaces and Boundaries Strategic Thrust #3: Explore Processes Related to Geospace Evolution Strategic Thrust #4: Develop Observational and Instrumentation Strategies for Geospace System Studies. Strategic Thrust #5: Fuse the Knowledge Base across Disciplines

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