Greg
Kopp
Univ. of Colorado / LASP
Oral
(Keynote Speaker)
And it will never be cross-disciplinary. It will be lost. Science *is* open science.

I present examples from climate studies and space weather to show the necessity of open science in cross-disciplinary research. These solar-terrestrial Grand Challenges require measurements, models, and forecasts of solar activity and irradiance variability; heliophysics interactions with the Earth's magnetosphere; radiative inputs to Earth-climate and atmospheric-chemistry models; measurements of Earth-outgoing reflected-solar and thermal-emitted radiation; correlations with ocean-buoy networks and ice-core sampling; intricate intercomparisons of instrument measurements and collaborations between instrument teams; and two-way communications with power grids, airlines, and the public. They require openness of not only results, but also of uncertainties with honestly presented assessments of concerns. I will also give anecdotal counterexamples of failures due to lack of openness in science.
Presentation file
7-monday-Kopp.pdf
YouTube link
View recording
Meeting homepage
4th Eddy Cross-Disciplinary Symposium
Download to PDF