Discussion Topics

- Global circuit
- Lightning and Climate Change
- Thunderstorms
  - Charge structures
  - Charging theories, non-inductive and inductive
- Lightning mapping and detection
  - Northeast Colorado Lightning Mapping Array
- Radar based lightning studies
- Upward lightning from ground based, tall objects

Continued...

- Lightning in winter storms and MCSs
- Transient Luminous Events
  - Sprites, elves, jets
- Narrow bipolar events and Terrestrial Gamma Fluxes
- Electrical effects on cloud microphysics
- Effects in atmospheric chemistry (NOx)
- Lightning: The CAPE vs. Aerosol debate

Class procedure

- Each student will make three in class presentations (review assigned papers)
- We will review roughly 20 papers during the semester
- We will follow a particular theme for 2-3 class periods, so several students will present within a given theme
- Grading based on in class presentations, participation in discussion times