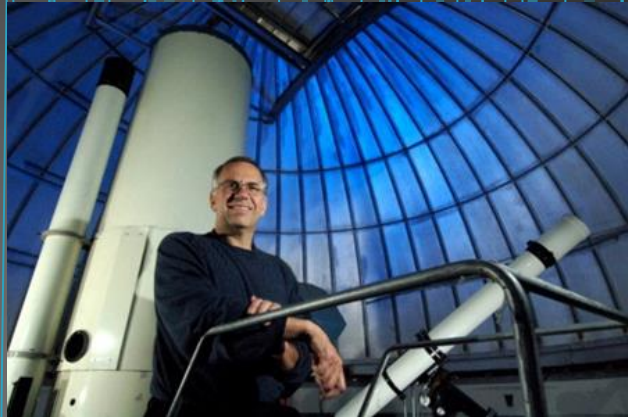


P/SS Department Colloquium

High Speed Sprite Imaging

Dr. Geoff McHarg

United States Air Force Academy



Friday, April 11, 2014

OPS 140

4:00 – 5:00pm

Meet and Greet

3:30 – 4:00pm

Streamers observed in the middle atmosphere located above positive cloud to ground lightning strikes are referred to as sprites. Sprite streamers initiate between 70 and 80 km and are observed to propagate first downward and then sometimes upward, at speeds up to one-third the speed of light. We report on the use of high speed (up to 15,000 frames per second) imaging to resolve the structure, dynamics, and spectral content of the visible light emitted by sprites. We compare our observations to models developed of the initiation, propagation, splitting and brightness of sprite streamers.

