R•I•T College of Science

Chester F. Carlson Center for IMAGING SCIENCE

Seminar Series

Imaging Emissions From the Middle Atmosphere

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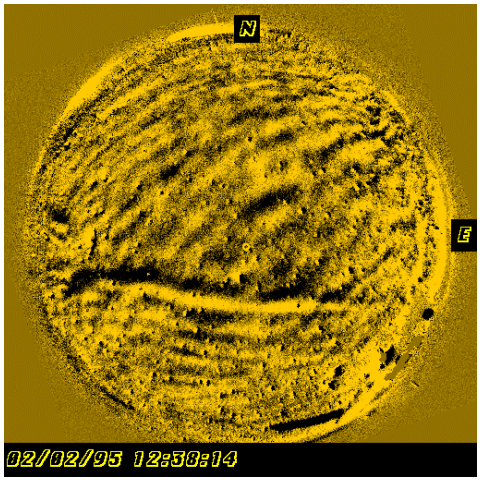

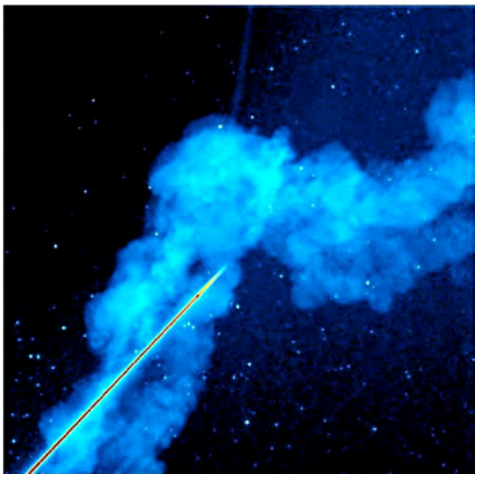

Remote sensing of the Earth's upper mesosphere and thermosphere (80-400 km) is accomplished using methods including active remote sensing with radar and lidar, and imaging atomic and molecular chemi-lumescent emissions. Atmospheric waves including planetary, tides, and gravity (bouyancy) that propagate from the lower atmosphere have a major influence on the dynamics of this region. The propagating waves perturbe the emission brightnesses, providing intrinsic wave information. The presentation will address 1) an introduction to waves and upper atmospheric research problems, 2) imaging methods and technologies applied to these problems, 3) image processing of techniques for determination of intrinsic atmospheric parameters. Example measurements from ground and spacecraft will be provided. Movies of wave propagation and temporal evolution will be shown using 'Time Difference' images.

4pm, Wed, October 28, 2009

Auditorium of the Center for Imaging Science

www.cis.rit.edu/seminar

for up-to-date seminar schedule, video archives and abstracts.