Please proofread this information

The following is a LaTeX to HTML translation of the abstract information you entered for the Division for Planetary Sciences Meeting. This partial translation is how your abstract will appear online. The LaTeX in your abstract will be fully translated in The Bulletin of the American Astronomical Society (BAAS).

Please proof it and press the COMMIT button on the bottom of this form.

Galileo and HST Observations of Jupiter’s Polar Stratospheric Haze

R.A. West (Jet Propulsion Lab, Caltech)

Data from all of the optical instruments on Galileo as well as recent imaging from HST reveal a polar stratospheric haze that is much more dynamic than had been supposed a few years ago. Spectra at UV wavelengths (200-300 nm) show color variations, with aerosols being redder closer to the pole. Images at UV wavelengths show features invisible at other wavelengths, such as a high-latitude oval the size of Jupiter’s Great Red Spot. These features are ephemeral. The asymmetry in UV reflectivity between north and south suggests a strong role for an auroral mechanism in the formation of the haze. The particles are highly polarizing at blue and red wavelengths yet they have much more forward scattering than do very small spherical particles. That combination of optical properties suggests that the particles are aggregates of very small monomers as first proposed by West and Smith (Icarus \textbf{90}, 330-333, 1991). The particles

http://www.aas.org/cgi-bin/mab.cgi
absorb sunlight in the stratosphere, producing a substantial latitudinal gradient in radiative heating which can be a driver for circulation. In order to make an assessment of the heating rates it is important to understand the optical properties of the aerosols over a broad wavelength range, as functions of altitude and latitude. The availability of UV-IR spectra and images from Galileo and HST is fueling a new generation of models. This work was performed by the Jet Propulsion Laboratory, California Institute of Technology as part of the NASA Jupiter System Data Analysis Program.

**Presentation Type:** cspo  
**Category:** 10. Outer Planets: Clouds

**Submitter:** Robert West  
**Member ID:** 11193  
**Presentor email address:** raw@west.jpl.nasa.gov  
**Presentor phone:** (818) 354-0479  
**Presentor address:** MS 169-237 Jet Propulsion Lab 4800 Oak Grove Drive  
Pasadena, CA 91109

**Session chair:** yes  
**Supplemental email:** raw@west.jpl.nasa.gov  
**Member Type:** DPS

---

If the information is correct, press the "Commit" button below. If the information is *not* correct, please use the **Back** button on your browser to return to the input form and correct the problem.

When you are satisfied with your submission, please print this page for future reference.