



Imaging Saturn's equinoctial auroras

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Saturn's ultraviolet (UV) auroras will be observed in January and February 2009 using the Advanced Camera for Surveys (ACS) on the Hubble Space Telescope (HST). During this time Saturn will be approaching equinox, such that the sub-Earth latitude will be very low. From this near-equatorial vantage point, both the north and south auroras will be simultaneously visible for the first time since the advent of high sensitivity planetary auroral imaging. At the same time Cassini will be obtaining plasma, magnetic field, radio, and auroral data from a highly inclined orbit, and ground-based infrared (IR) observations will be obtained using the Infrared Telescope Facility (IRTF). This unique collection of data will be used to address the following issues: Are Saturn's auroras morphologically similar in the north and south? Is the location of the northern auroral emission symmetric with the south? What is the influence of equinox on the magnetosphere? In this paper the HST images will be presented, and the first results of this campaign will be discussed.