

**SSEC/CIMSS  
Seminar**

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# **Hydrogen and oxygen in the Saturn system**

Between 2003 and 2005 the Cassini Ultraviolet Imaging Spectrograph (UVIS) performed a long-term study aiming to characterize the morphology and behaviour of the atomic hydrogen and oxygen distribution in the magnetosphere of Saturn. The oxygen distribution is seen as a torus, centered at the orbit of Enceladus, where it is sourced from the water emanating from the southern pole of the moon. The hydrogen distribution, in contrast, is extremely wide, extending beyond 40 RS. It has many persistent complex features throughout the magnetosphere and is seen being sourced from atop the atmosphere of Saturn. The mechanism by which the hot hydrogen is produced is hitherto unknown.

**Tuesday, 25 August 2009**

**11:00 a.m.**

**Room AOSS 351**