

The Role of Water in Planetary Science

April 18, 2007

12:00 noon - 1:00pm

Discussion of related readings afterward, 1pm-2pm

To see the list readings, go to the CIPS website: <http://cips.berkeley.edu/events>

WATER IN THE OUTER PLANETS

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I will provide reasonably good answers to as many of the following intimately related questions as time allows:

- * What is the cloud structure in the giant planets?
- * What conditions would permit oceans to exist in ice giant planets?
- * What did the Galileo Probe Mass Spectrometer find out about water on Jupiter?
- * What is a Jovian 5-micron hotspot?
- * Have remote sensing efforts measured water in the giant planets? Will remote sensing succeed in the future?
- * Can the abundances of other volatiles indirectly tell us about water?
- * How do volatile abundances compare among the giant planets?
- * What do the densities of giant planet moons tell us about their origins?
- * Can we use giant planet volatile abundance ratios to constrain how the planets formed, and also characterize the icy planetesimals that contributed to their formation?