The Role of Water in Planet Formation

Water is one of the central players in the process of planet formation and in the evolution of protoplanetary disks. In addition to being a necessary ingredient for habitability, as we know it, water provides much of the mass for the formation of planetesimals and the cores of giant planets. As a result of its intermediate freeze-out temperature of ~150 Kelvin and its high abundance, water gives rise to an intricate system of vapor and ice, leading to "weather"-like properties of protoplanetary disks. This includes precipitation, transport, concentration and evaporation. I will review recent observational advances that measures the properties of the water system in protoplanetary disks younger than 10 million years, provides unique insight into the solar nebula, and tests decades-old theories for the formation of the icy bodies in the solar system.

Wednesday November 7th, 2012
4:00pm
106 Hannan Hall
Refreshments will be served at 3:45

Sponsored in part by the Graduate Student Association
For more information, please contact:

Dr. Duilia de Mello (202) 319-5325

If you would like to request disability accommodations, please contact Gail Hershey at (202)-319-5315 to make arrangements.