

Speaker: Prof. Sara Seager

Affiliation: Massachusetts Institute of Technology (MIT)

Time: 3:00 pm – 4:00 pm

Location: Marcus Nanotechnology 1116-1118

Title: Venus as Potentially Habitable Planet

Abstract: Scientists have been speculating on Venus as a habitable world for over half a century, based on the Earth-surface-like temperature and pressure in Venus' clouds at altitudes 48-60 km above the Venus surface. The controversial detection of phosphine gas in the atmosphere of Venus has renewed interest in both the Venus atmosphere in general and in the speculative possibility of life in the clouds. Any life would have to persist aloft indefinitely against downward gravitational settling, in order to avoid the destructively hot temperatures beneath the clouds. Recent computer models and lab-based experiments on sulfuric acid, Venus' cloud particle composition, are changing the view on chemistry in the Venus clouds. Professor Seager will discuss the motivation and overview for the Venus Life Finder Missions to study chemistry towards understanding Venus as a potentially habitable planet.