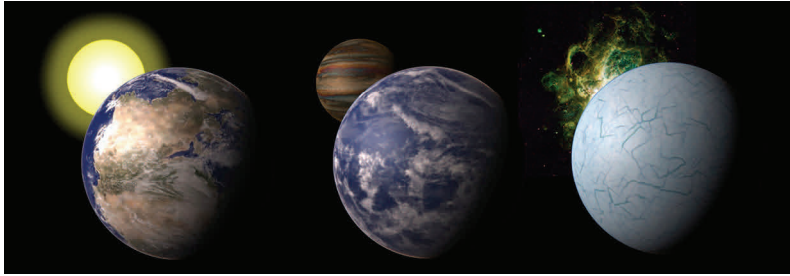


## Planetary Exploration of Habitable Worlds



Much of recent space exploration has focused on the detection of planets outside of our solar system (“exoplanets”)

and evaluating their potential habitability. Here, I present a first approach to rank the nearly 1000 exoplanets discovered so far by their potential to hold life, based on basic habitability parameters. The approach chosen also applies to potentially exotic habitats such as the environment existing on Saturn’s moon Titan, where liquid water may be replaced by liquid hydrocarbons as a solvent for life. Habitability does not only include the persistence of life, but also the origin of life, about which we can gain some insights from Miller-Urey type experiments and the distribution of complex organic compounds in space. The search for habitable worlds will remain a major impetus for future space exploration as we desire to (1) find extraterrestrial life and understand our place in the universe and (2) colonize other planets and moons as the only option for long-term survival.

**Wednesday, February 20, 2013**

**4:00—5:00 PM**

**OPS Room 140**



**Dr. Dirk Schulze-Makuch**  
Washington State University

**Students: Come meet Dr. Schulze-Makuch Wednesday  
from 3:00 – 4:00 pm in Room 140.**