Professor Sara Seager, Biography

Sara Seager is an astrophysicist and planetary scientist at the Massachusetts Institute of Technology. Her science research focuses on theory, computation, and data analysis of exoplanets. Her research has introduced many new ideas to the field of exoplanet characterization, including work that led to the first detection of an exoplanet atmosphere. Professor Seager's space instrumentation group is focusing on "ExoplanetSat", a “3U CubeSat” nanosatellite capable of high-precision pointing, with the science goal of detecting small transiting exoplanets orbiting bright, sun-like stars. The prototype is intended to be the first of a planned fleet of nanosatellites, aimed to demonstrate the graduated growth of a constellation as a new paradigm for space science missions. In addition to being the PI of ExoplanetSat, Professor Seager is a co-I on the MIT-led TESS, a NASA Explorer Mission to be launched in 2017, an all-sky survey for transiting exoplanets including a focus on finding rocky planets transiting small stars. Professor Seager chairs a current NASA Science and Technology Definition Team study of the starshade concept for space-based direct imaging to find and characterize other Earths.

Before joining MIT in 2007, Professor Seager spent four years on the senior research staff at the Carnegie Institution of Washington preceded by three years at the Institute for Advanced Study in Princeton, NJ. Her PhD is from Harvard University. Professor Seager is on the advisory board of the asteroid mining company Planetary Resources. Professor Seager is a 2013 MacArthur Fellow, the 2012 recipient of the Raymond and Beverly Sackler Prize in the Physical Sciences, and the 2007 recipient of the American Astronomical Society's Helen B. Warner Prize. She has been recognized broadly in the media, most recently in Time Magazine's 25 Most Influential in Space in 2012.