## Planets Beyond the Solar System: Diverse Exoplanets

\_\_\_\_\_

Sara Seager MIT

The diversity of planets that orbit other stars (exoplanets) is astonishing. To the limits current technology can reach, planets of every mass, size, period, and orbital eccentricity imaginable exist. With over 300 exoplanets now known, astronomers are finding more and more categories to put them in. The adopted category names—including hot Jupiters, very hot Jupiters, super Earths, cold Neptunes, and eccentric giants—are not always well defined. Furthermore, there are a number of objects orbiting other stars that not everyone agrees are planets. The growing data set of exoplanet measurements includes mass, radius, atmospheric composition and temperature. Interpretation of these measurements will lead to a deeper understanding of exoplanet physical characteristics, with the potential resolution of nomenclature controversies.