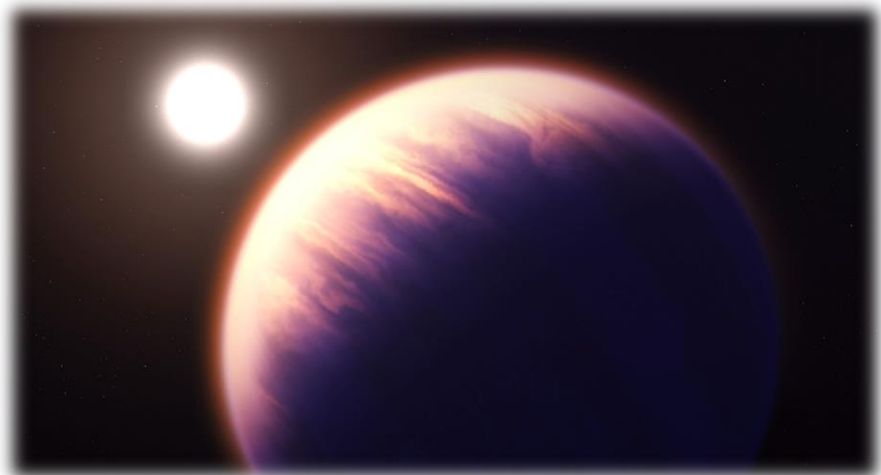


19. April 2023

Einladung zum Physikalischen Kolloquium

23.06.2023 **Laura Kreidberg, Max-Planck-Institut für Astronomie in Heidelberg**
**»Planets are Places:
Exoplanet Atmosphere Characterisation in the JWST Era«**
Einführung: T. Ferber

The past 25 years have revealed a diversity of exoplanets far beyond what was imagined from the limited sample in the Solar System. With new and upcoming observing facilities and a rapidly growing number of nearby planets, we are beginning to bring this diversity into focus, with detailed follow-up characterization of the



planets' atmospheres. In this talk, I will focus on two key questions in exoplanet atmosphere studies: (1) what can we learn about giant planets' origins from their present-day atmospheres? And (2) what can we learn about habitability from "Earth cousins", planets that are a little bigger or a little hotter than the Earth? I will provide some historical context on these two questions, share a few preliminary results from the first JWST observations of transiting planets, and conclude with a longterm perspective on exoplanet atmosphere characterization through the 2040s, including the search for biosignatures in the atmospheres of potentially inhabited planets.

Der Vortrag findet **am Freitag, den 23. Juni 2023 um 15:45 Uhr im Otto-Lehmann-Hörsaal**, Physik-Flachbau (Geb. 30.22), KIT-Campus Süd statt.