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Exoplanets in HD^1

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Exoplanet surveys have revealed an amazing diversity of planets orbiting other stars in the last two decades. Studying the atmospheres of representative exoplanets is the key next step in leveraging these detections to further transform our understanding of planet formation and planetary physics. Additionally, atmospheric studies are critical for determining if any of the small habitable zone exoplanets that are now being detected are truly habitable, and even inhabited. In this talk I will describe recent results from exoplanet atmosphere observations with an emphasis on results from major programs using the Hubble Space Telescope. Although atmospheric studies of potentially habitable planets are currently out of reach, I will discuss how future facilities may open up this possibility in the near future.

¹Exoplanets in HD