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“Comparative exoplanetology from observations to models”

The study of exoplanets is at the forefront of the public imagination in space. Investigations into the atmospheres of these worlds with current and future space- and ground-based facilities provide a plethora of opportunities for the exploration of planetary atmospheres. In my work, I have focused on two main areas of comparative exoplanetology. On one front, I conduct detailed observations, revealing the composition of exoplanet atmospheres from giant Jupiter-sized worlds down to Earth-sized worlds. On the second front, I use theoretical models with fundamental physics and chemistry to interpret these observations and predict avenues for future exploration. I will talk about the role transmission spectroscopy of exoplanet atmospheres plays in our understanding of the solar system, and how this puts us on the path to answering the question: Are we alone?

Wednesday, July 11th at 2 pm in Physics LTA