

Seminar

by

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Diversity of exoplanet atmospheres: from simulations to observations

One could categorize solar system planets into two main categories: inner (terrestrial) and outer (giant) planets. Easy. But more than half a century ago a new class of gaseous planets, ice giants, branched out; thanks to the disparity of their composition. More complications, but nothing exotic. Today, however, we hear about the discovery of Super-Jupiters, Hot-Jupiters, sub-Saturns, Super-Neptunes, mini-Neptunes, Super-Earths, etc. Even with our limited knowledge on these objects they have shuffled our beliefs about the diversity of planets. In this talk, I will overview our current understanding of these planets based on a verity of observational techniques such as direct imaging, transmission and emission spectroscopy, and will highlight some of the results based on our large atmospheric grids of models.

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