

Contributed Talk

Splinter Exoplanets

THE OPTICAL SLOPE IN EXOPLANET SPECTRA AND A HOST STAR
VARIABILITY SURVEY

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Ground-based extrasolar planet transmission spectroscopy is mostly done with 8meter-class telescopes, also by our group. In this talk, I will present how we extend these measurements by small-class telescope observations to obtain the planetary optical spectral slope. My explanation uses the illustrative example of our recent finding of magnesium silicates in the atmosphere of HAT-P-32b. The optical spectral slope of this planet is put into the context of the literature values of other hot Jupiters, revealing the text-book optical slope of HD189733b as an oddball. An optical slope in a planetary transmission spectrum can also be mimicked by spots on the host star. In the second part of the talk, I will briefly present our large survey VAMOS (VARIability MONitoring of host Stars) to characterize star spots of the host stars. One of our first results was to reveal a particularly interesting target as one of the most active host stars known.