Abstract Submitted
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Ground-based Characterization of Exoplanet Atmospheres[1] H. BLOEMHARD, MRO/NMT, THE MRO/NESSI TEAM — Of the many confirmed exoplanets, we know the detailed chemical composition and temperature structure of only a handful. Transiting exoplanets present us with the interesting opportunity to characterize their atmospheres. Until 2009, only space-based platforms had been successful at this type of characterization. Since then, ground-based spectroscopy has made significant contributions to exoplanet characterization. The IRTF/SpeX instrument combination has been used to reliably reproduce space-based results while obtaining new and unexpected information. Our team has been applying lessons learned at IRTF/SpeX to the design of a new ground-based spectrometer, the New Mexico Tech Exoplanet Spectroscopic Survey Instrument (NESSI). NESSI, a collaborative effort between researchers at NMT, MRO, and NASA JPL, is purpose built to characterize exoplanet atmospheres. In anticipation of first light in a few months, I will present an update on NESSI progress, including a summary of NESSI's unique features.

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Heather Bloemhard
MRO/NMT

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