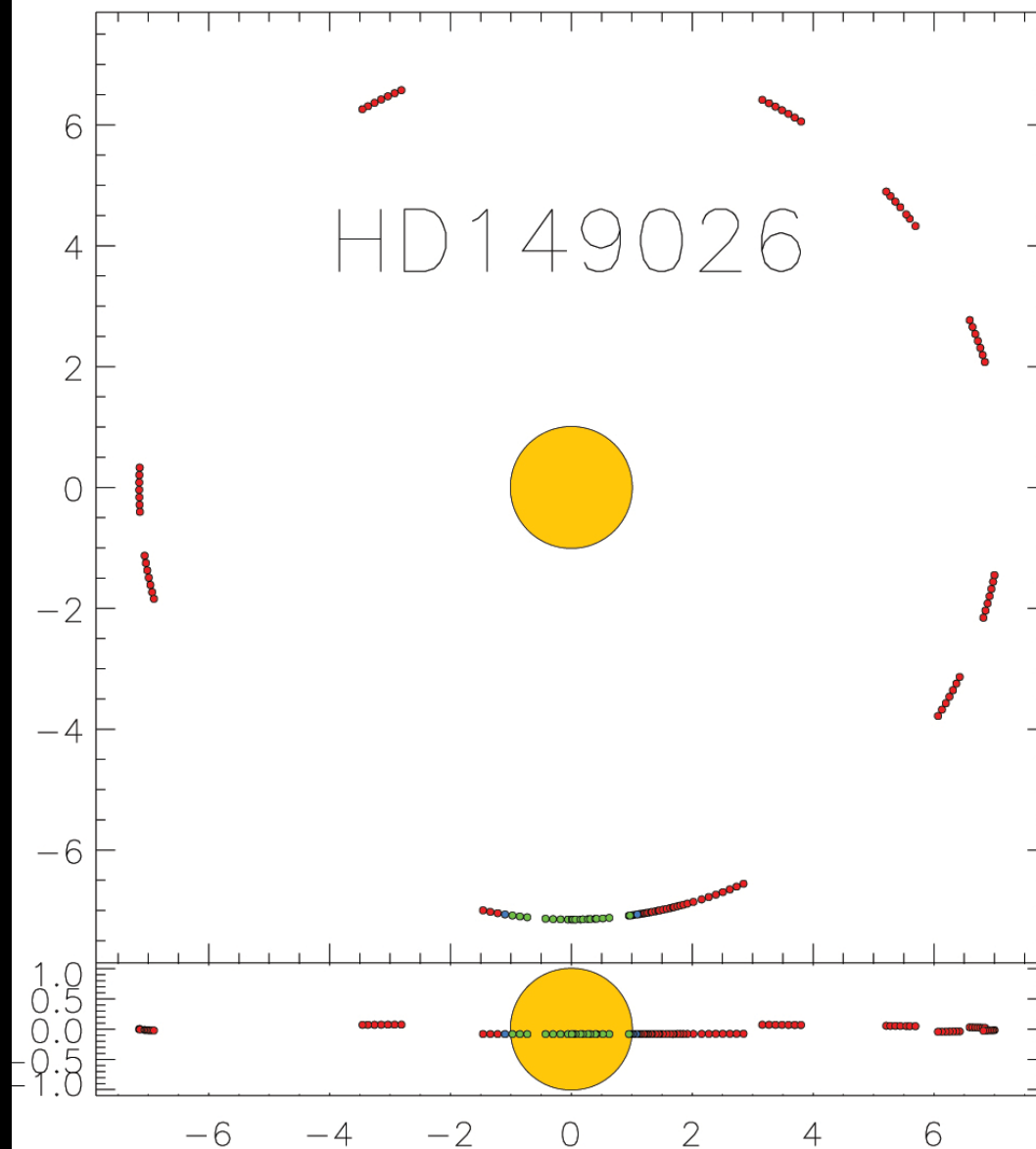


High-Resolution Ground-Based Transmission Spectroscopy of Exoplanetary Atmospheres

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Above: Observations of
HD 149026, scaled to
stellar radius

Observations:

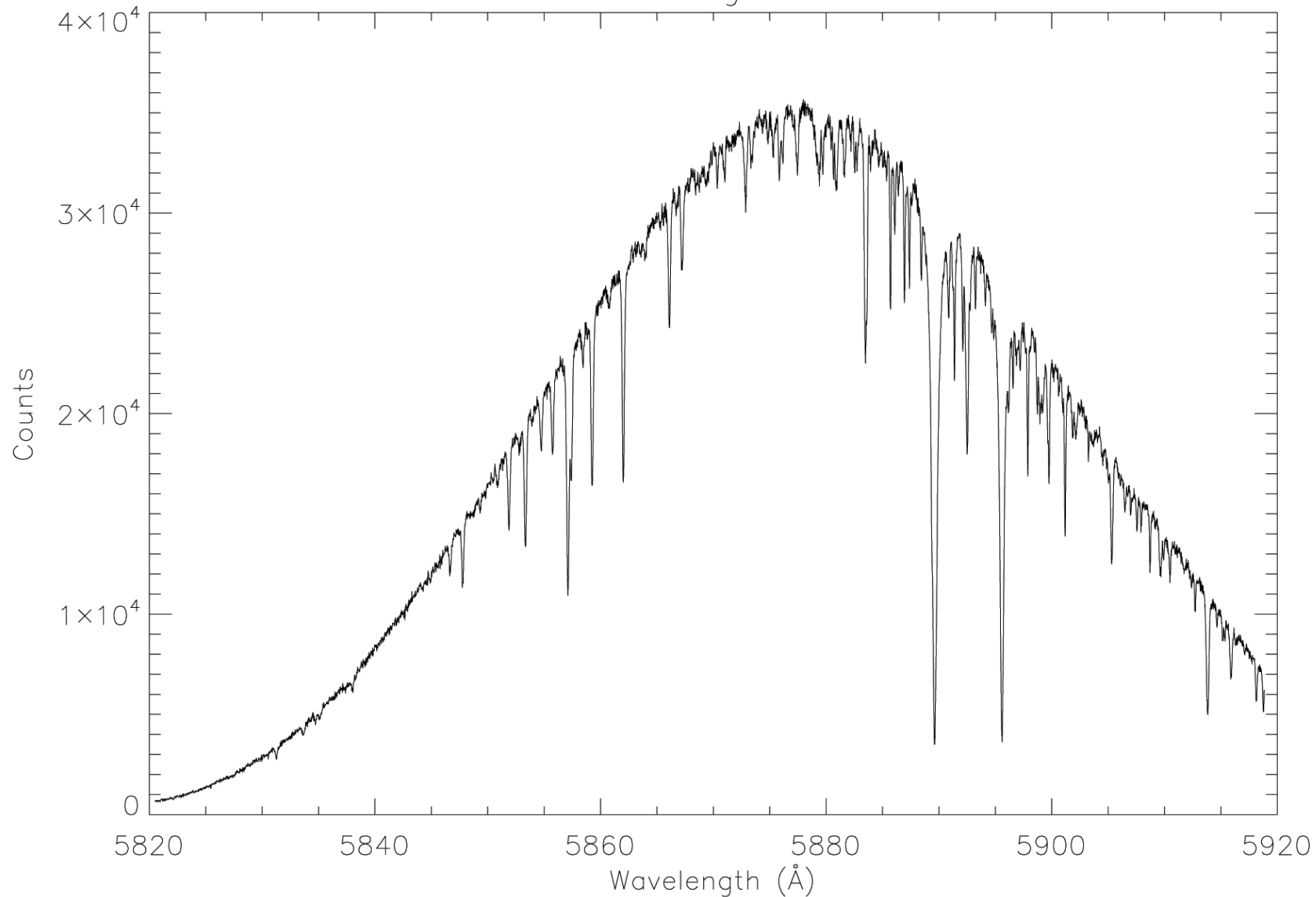
- 4 hot Jupiters and 1 hot Neptune
- Hobby-Eberly Telescope's HRS @ $R \sim 60,000$
- 600s exposures
- Per target: 100+ total and 20+ in transit exposures



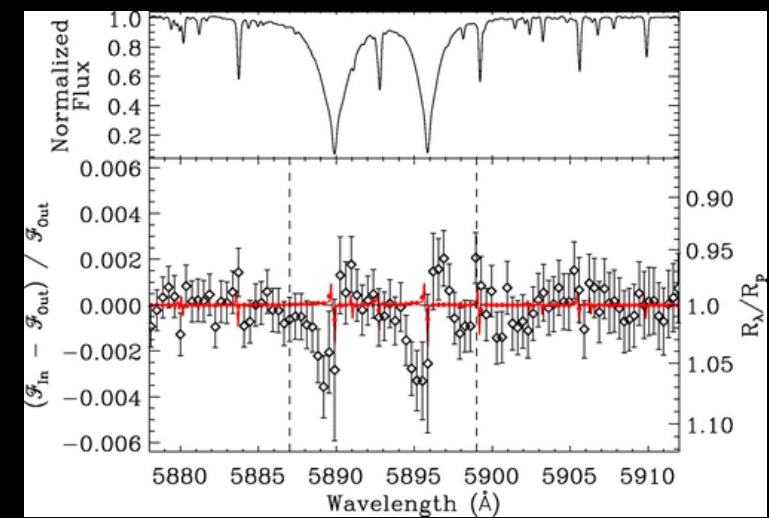
Program Goals

- Search for alkali metal lines (Na I, K I, etc.)
- Characterize entire atmospheric spectrum

Echelle Order Containing Na I for HD 149026



← Sample spectrum covering Na I



Previous Na I detection, Redfield et al. (2008)

Program Status

- Data pipeline complete, spectra reduced and extracted
- Currently analyzing
- Expect Na I and/or K I results soon