

## Extreme Precision in Radial Velocity IV



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### Keck Planet Finder

KPF is a fiber-fed, high-resolution, high-stability spectrometer in development for the W.M. Keck Observatory. The instrument is designed to characterize exoplanets via Doppler spectroscopy with a single measurement precision of 0.5 m/s or better, however its resolution and stability will enable a wide variety of other astrophysical observations. KPF will have a resolving power of  $> 80,000$ , with the bandpass spanning a green channel (445 nm to 600 nm) and a red channel (600 nm to 870 nm). A novel design aspect of KPF is the use of a Zerodur optical bench, and Zerodur optics with integral mounts, to thermally and mechanically stabilize the spectrometer. The KPF project has passed its preliminary design review and is currently in the detailed design phase, and here we will focus on engineering aspects and the overall design of the instrument.

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