

NASA programmatic needs for EPRV advancement & capability

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Precision radial velocity has been a critical technique for exoplanet discovery and characterization for three decades, and will continue to be so for the foreseeable future. I'll review the current and future landscape of NASA missions relevant to exoplanet science, and how precision radial velocity is providing critical observations to enhance or enable science returns on these missions, and inform the design of future missions recommended by the Astro2020 Decadal Survey. The recommendation of the Exoplanet Science Strategy (2018) National Academies Report, for "NASA and NSF to establish a strategic initiative in extremely precise radial velocities to develop methods and facilities for measuring the masses of temperate terrestrial planets orbiting Sun-like stars", is still critical in light of the Astro 2020 Decadal Survey's recommendation for NASA to build a high-contrast direct imaging mission (~6 meter diameter) to "provide a robust sample of ~25 atmospheric spectra of potentially habitable exoplanets" and to discover and spectrally characterize exoplanets of other types.