

**Detection of Planets in the Habitable Zones of Nearby Stars by Terrestrial Planet Finder and SIM PlanetQuest**

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We present results of Monte Carlo simulations of detection of planets orbiting in the habitable zones of potential TPF target stars by both TPF and SIM PlanetQuest. The simulations depend critically on the assumed distributions of planet masses and semimajor axes in this regime. Currently there is little, if any, observational constraint on these distributions. We investigate several different planet distributions consistent with observations and favored by theorists. This work was carried out at the Jet Propulsion Laboratory, California Institute of Technology, under contract with the National Aeronautics and Space Administration.