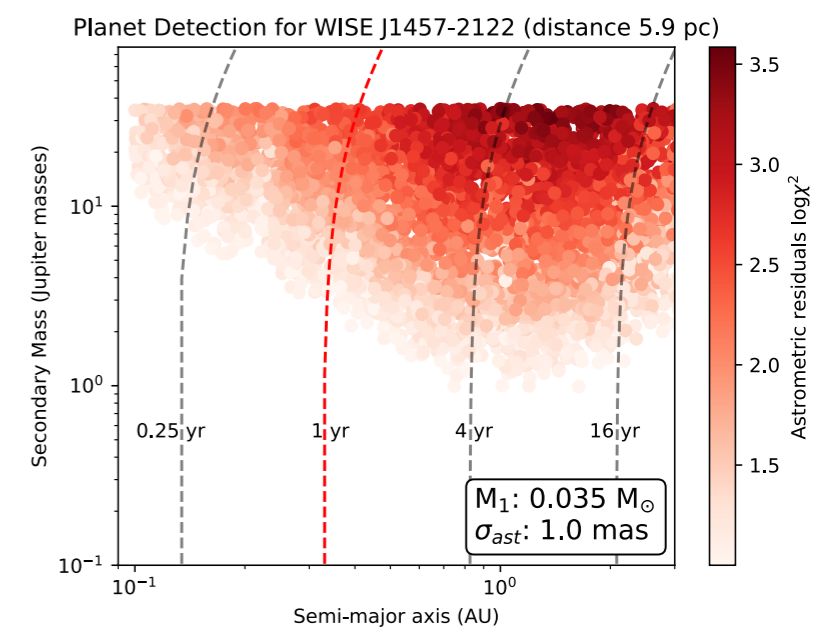
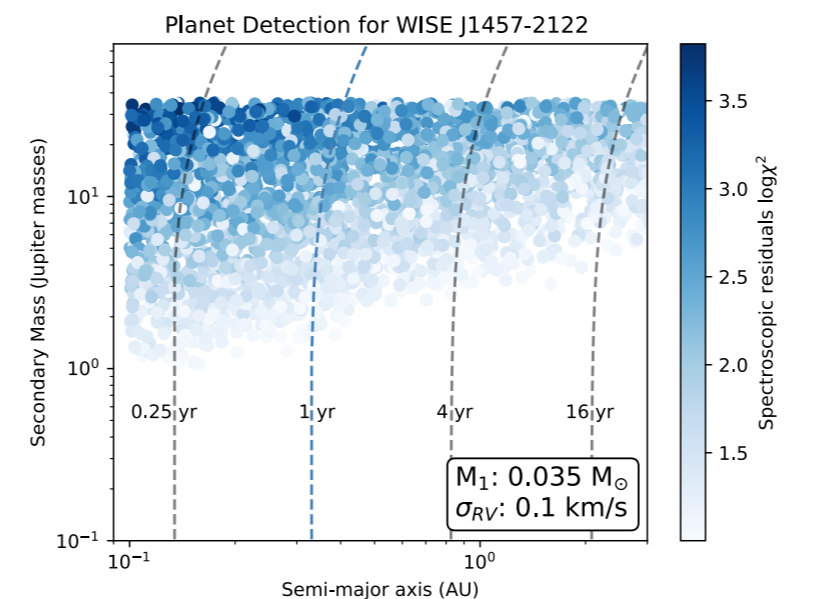
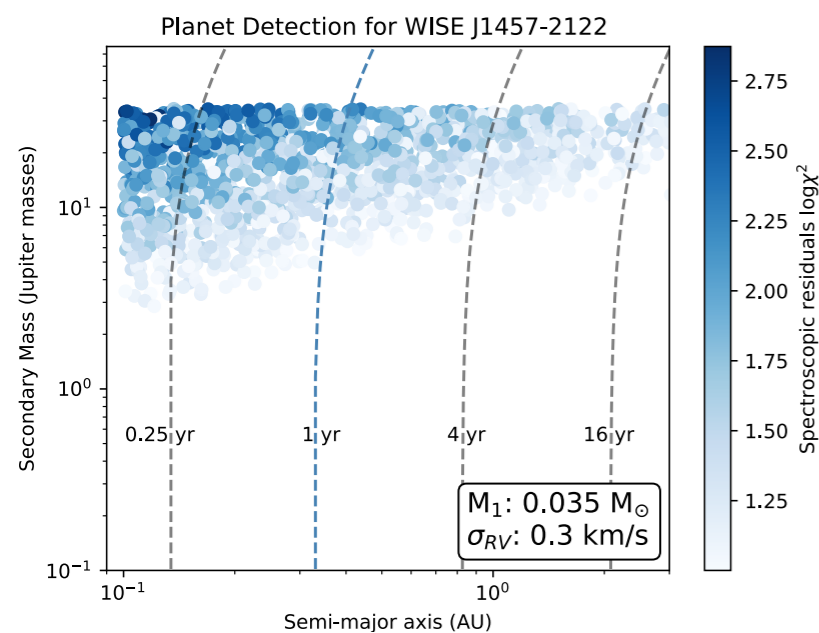


# Precise **Radial Velocities** to Detect Exoplanets around Ultracool Dwarfs Using the **NIRSPEC** High-Resolution Spectrograph

Dino Hsu (UC San Diego)

- Compiled 300+ late M to late T dwarfs from the Keck Observatory Archive
- Currently developing a forward modeling pipeline to extract RVs and vsini s
- Simulations to examine the RV planet detectability around these samples



RV DETECTABILITY BY THE CURRENT NIRSPEC

POSSIBLE RV DETECTABILITY FOR THE UPGRADED NIRSPEC

ASTROMETRIC DETECTABILITY