

Giant Planets and Brown Dwarfs Around Young Stars I

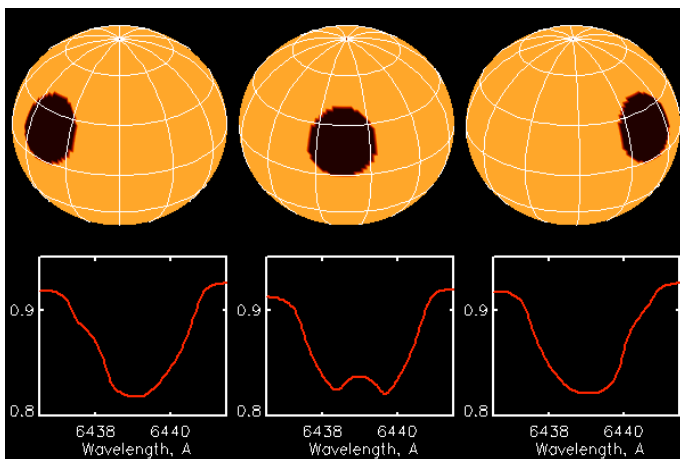
Naved Mahmud (Rice), Christopher Crockett (Lowell), Christopher Johns-Krull (Rice), Lisa Prato (Lowell), Patrick Hartigan (Rice), Daniel Jaffe (UT Austin), Charles Beichman (JPL/NEoScl)

The Project: Multi-wavelength radial velocity (RV) survey of ~ 150 T Tauri stars in Taurus-Auriga star-forming region

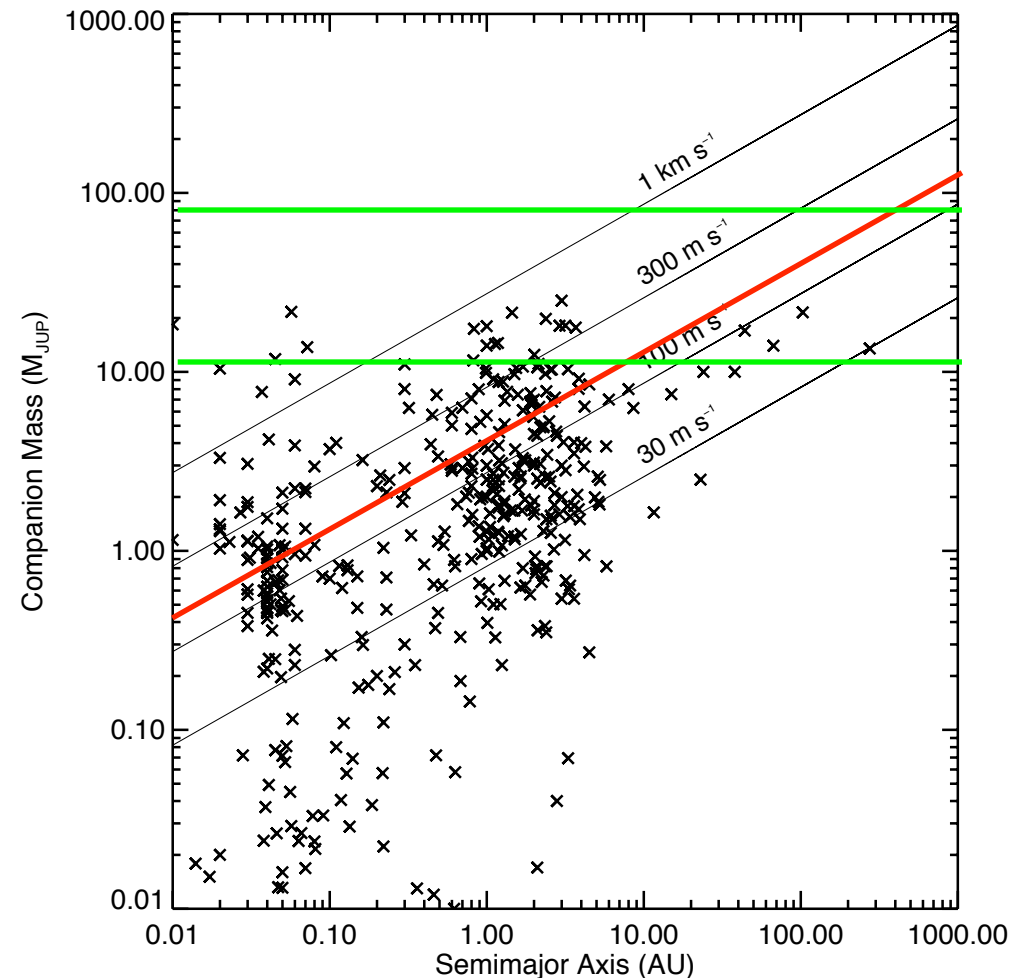
Goals:

- Explore origins of brown dwarf desert
- Detect youngest giant planets

Main Challenge: T Tauri stars have strong magnetic fields that produce large cool star spots



What Can We Detect?



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Our Approach:

- RV period vs. rotation period
- Line bisector analysis
- RV amplitude independent of wavelength?

