An Exploration of Exoplanet Detection Methods

Group 5

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Radial Velocity

Microlensing

Transits

ed to date

Astrometry

Direct Imaging

Methods

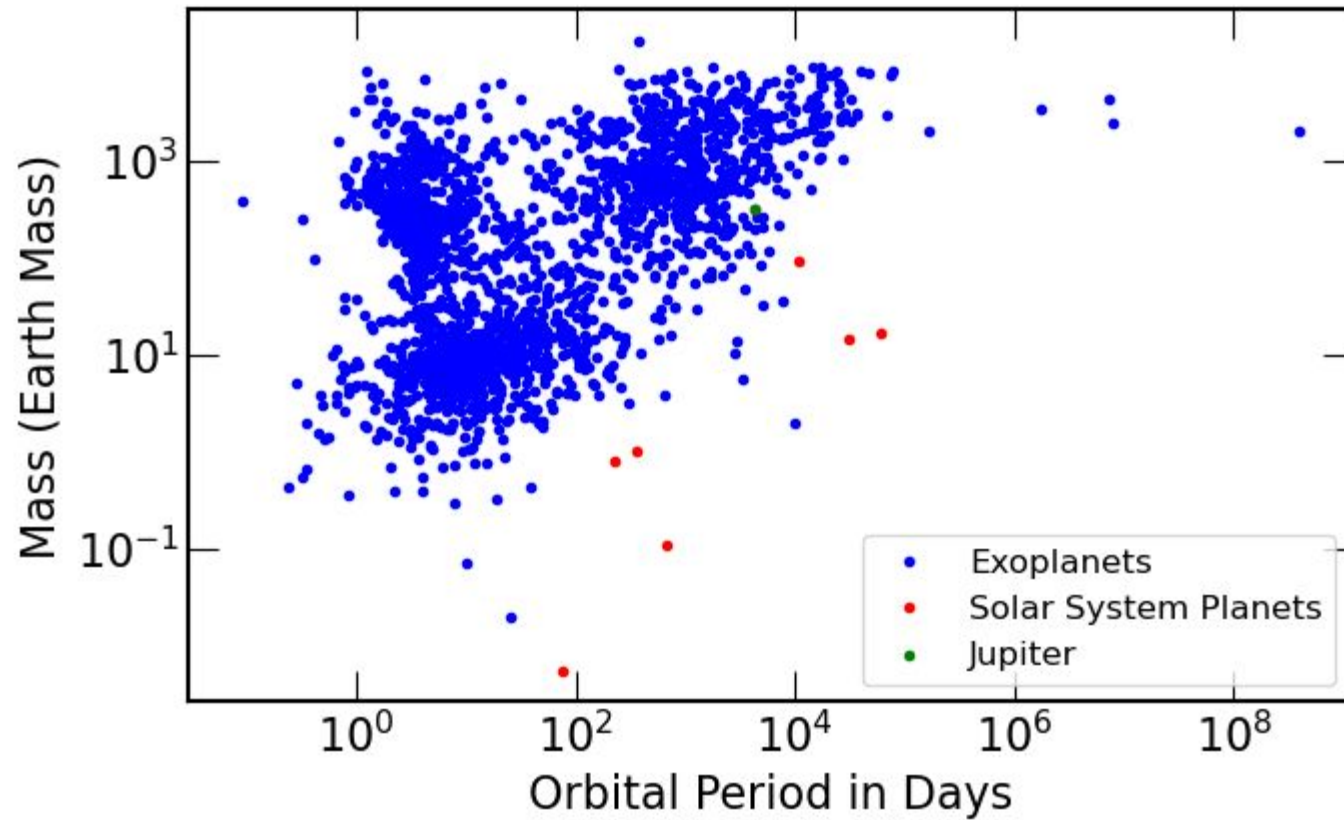1. Download NASA Exoplanet Data
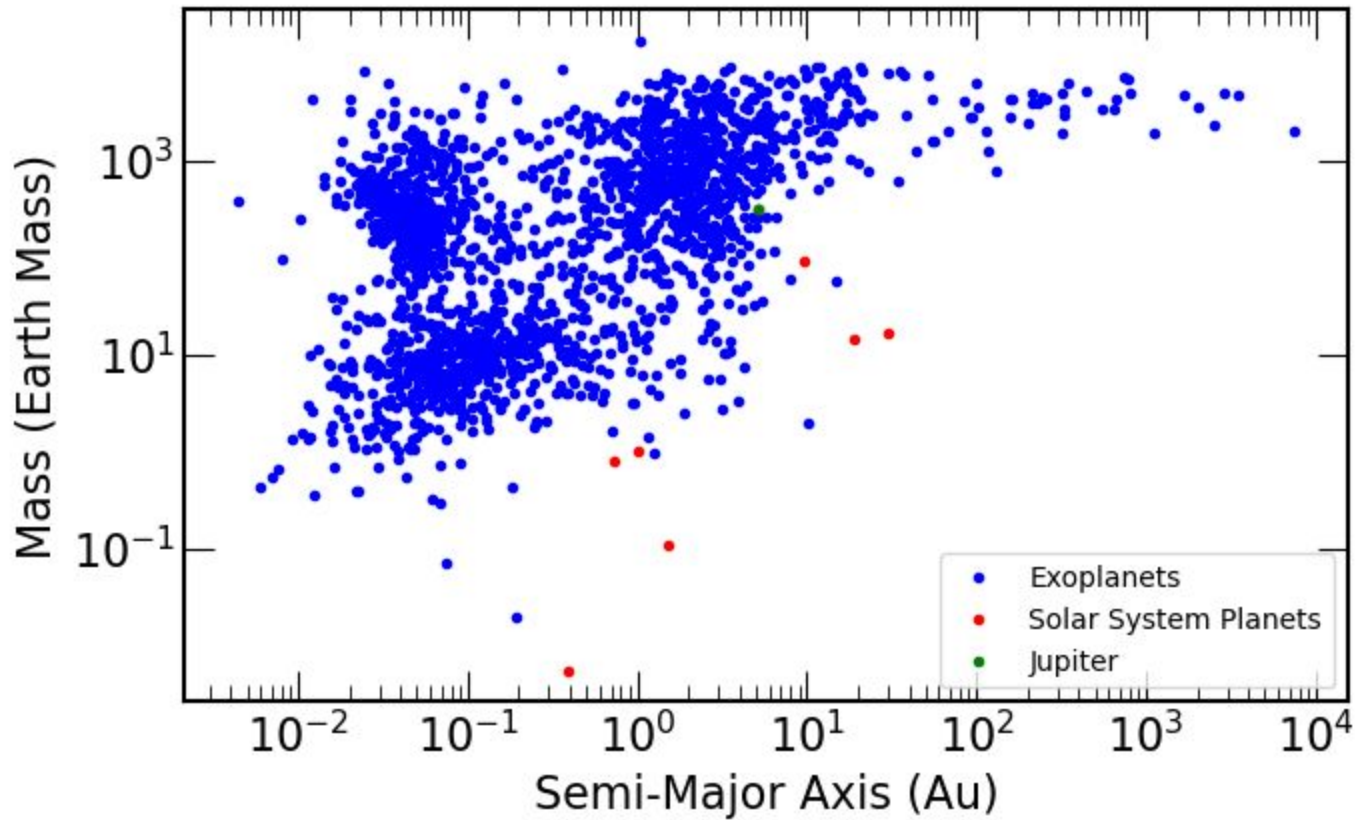2. Create Various Plots
3. Overplot Solar System Planets
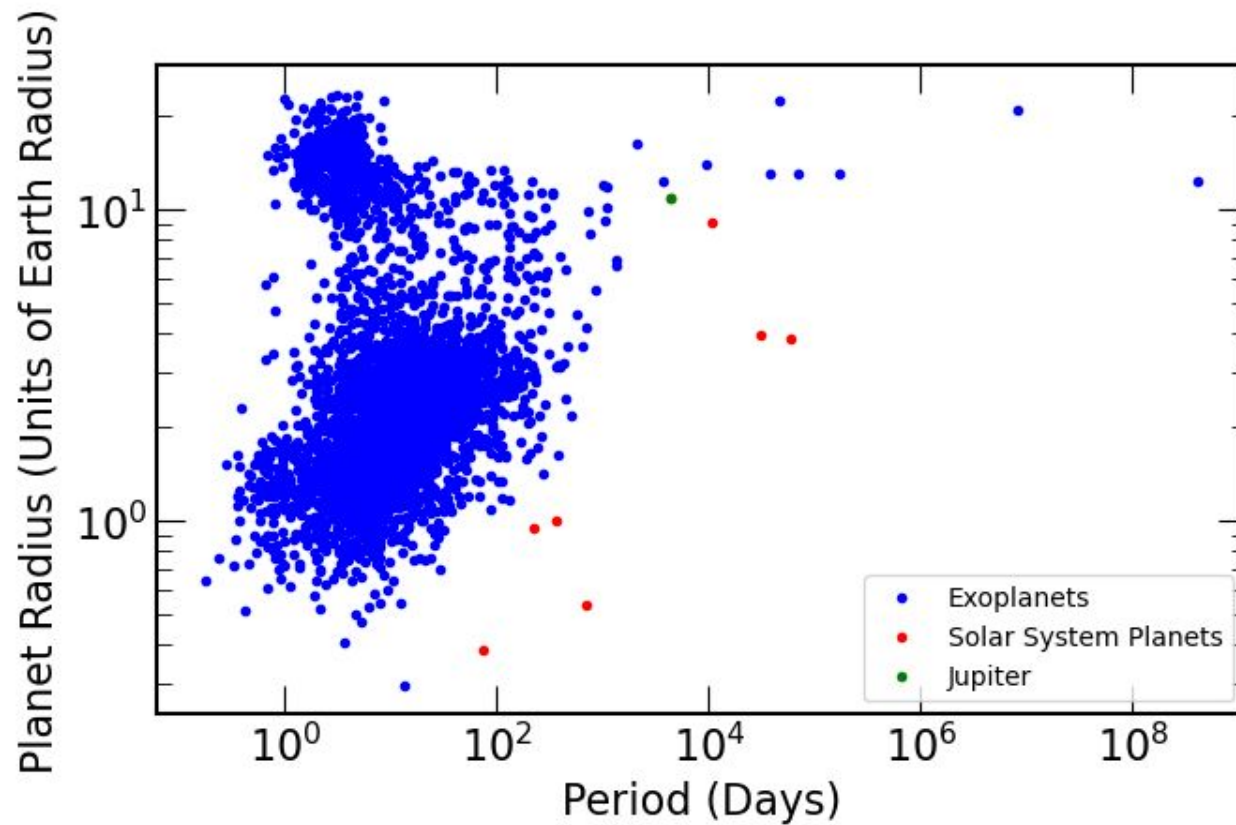4. Check Sensitivities of Detections
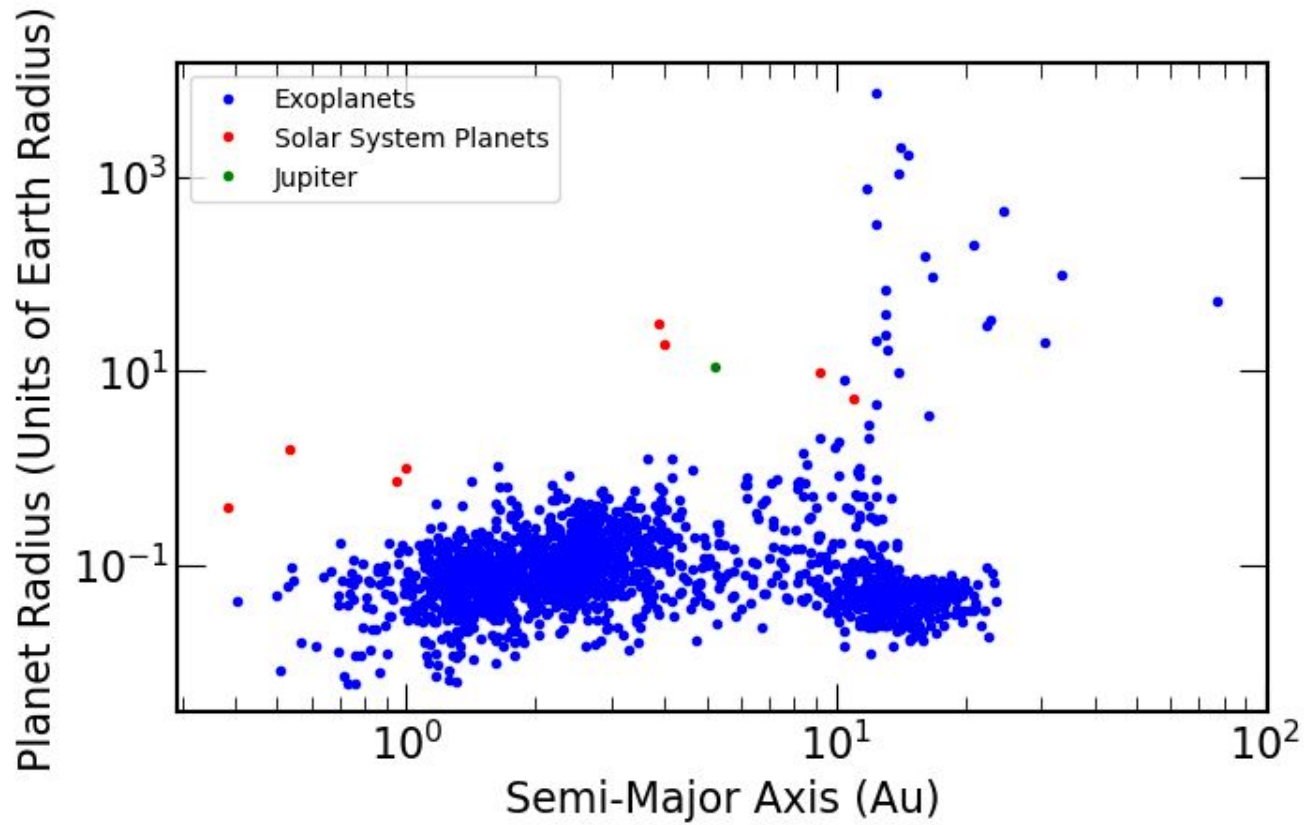5. Simulate Jovian Planet Around Sun-like Star
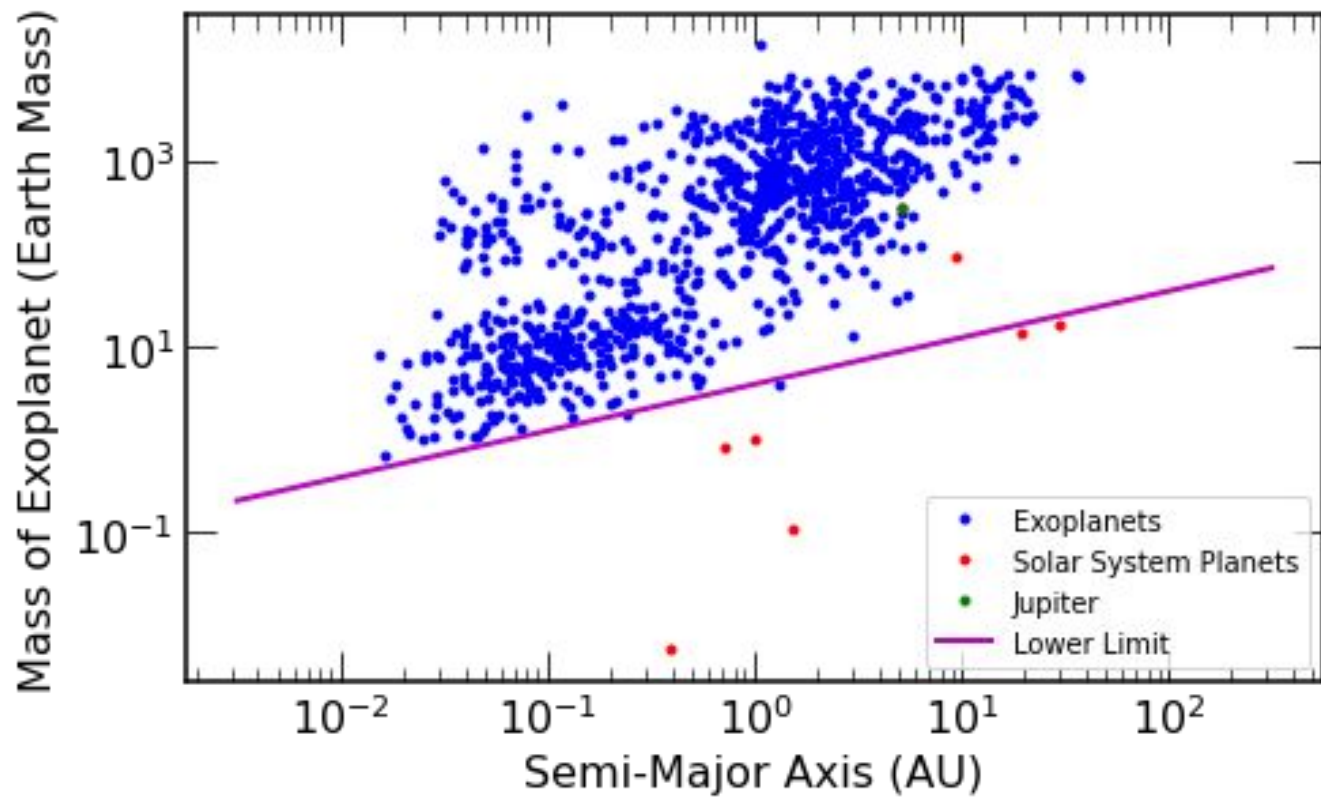
Plot 1: Mass v. Period

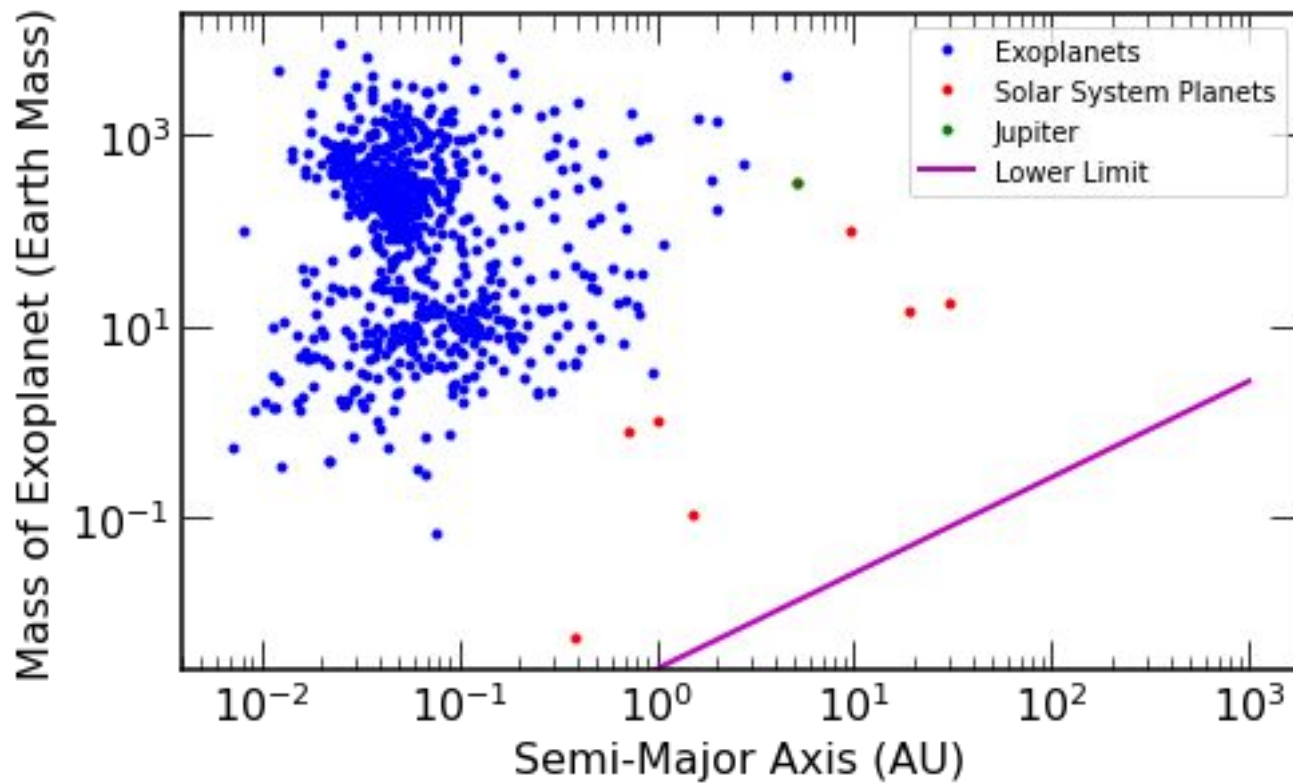**Plot 2: Mass vs. Semi-Major Axis**

Plot 3: Radius vs. Period

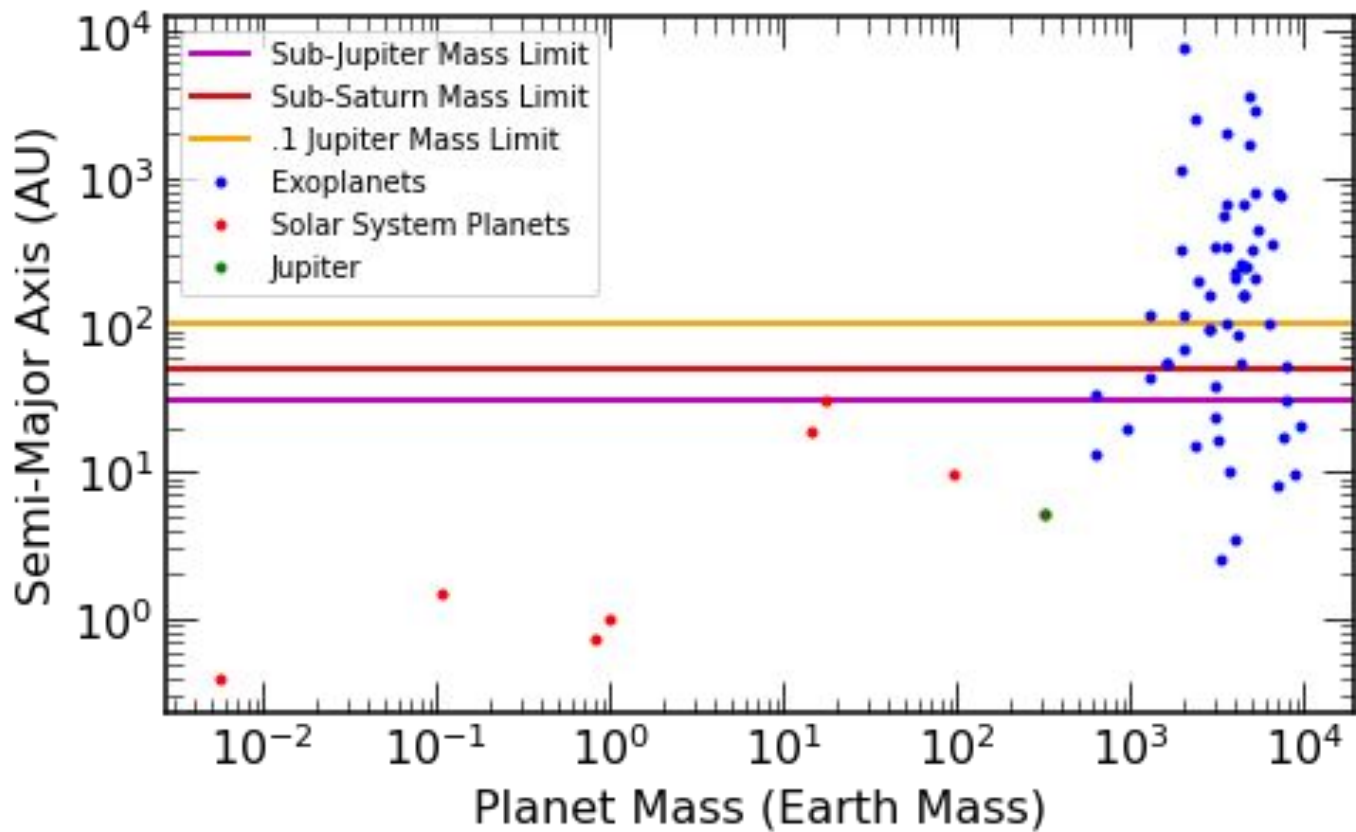**Plot 4: Radius vs. Semi-Major Axis**

Radial Velocity Sensitivity

Transit Sensitivity

Direct Imaging Sensitivity

Conclusion

-Strengths vs. Weaknesses

-Confirmation Bias

-Occurence Rate Method