

Data Challenge 2018: Summary

Description of Light Curves

There are 293 total light curves consisting of

93 CVs

74 Point Lenses

126 Binaries = 2L1S (including planets)

Summary of Planetary Light Curves

We define “planets” as $m_p < 13 M_{\text{Jup}}$.

By Physical Properties

Total Number of Planets ($m_p < 13 M_{\text{Jup}}$): 48

Number of Planets w/ ($m_p < 1 M_{\text{Jup}}$): 34

Number of Planets w/ ($m_p < 1 M_{\text{Nep}}$): 18

Number of Planets w/ ($m_p < 2 M_{\text{Earth}}$): 3

By Microlensing Properties

Caustic Type

Non-Resonant Caustic Planets: 37

Resonant Caustic Planets: 11

Of Particular Interest

Small planets ($\log q < -5$): 3

Wide planets ($s > 1.5$): 15

Wide planets ($s > 2$): 10

Figures

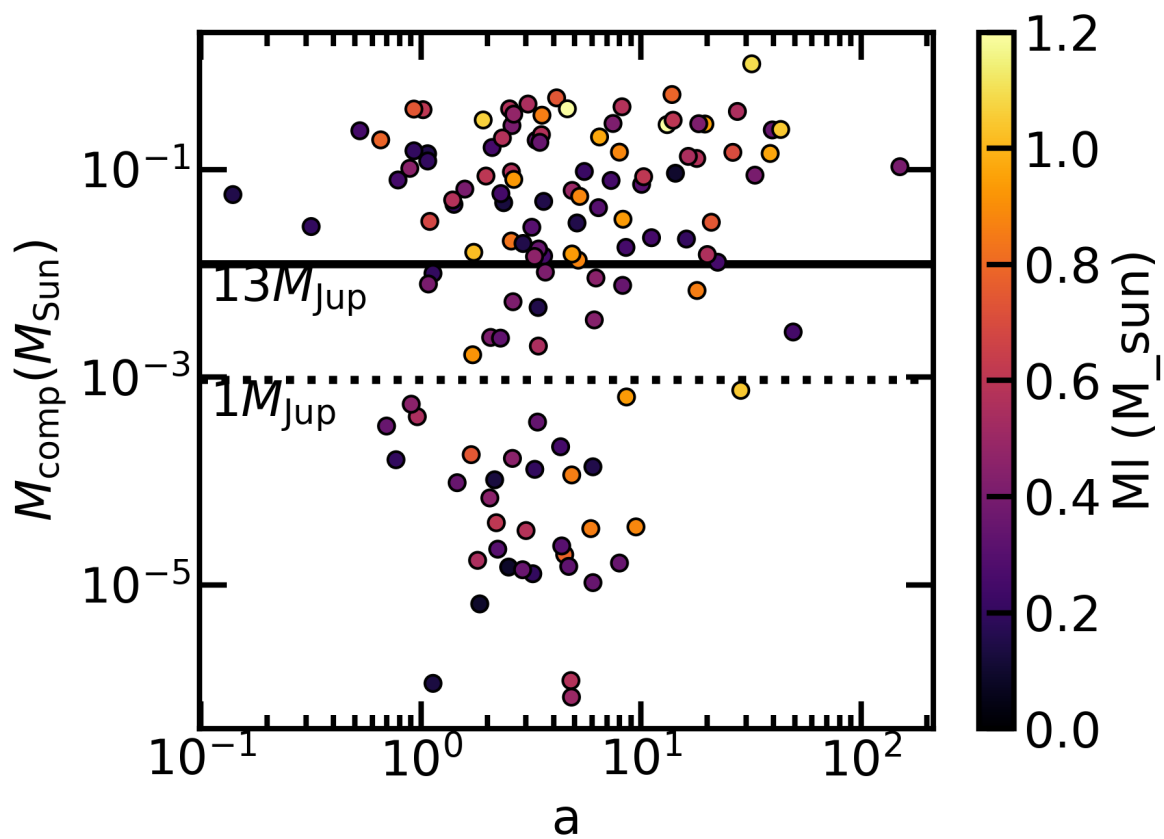


Figure 1. There are 126 2L1S light curves in the sample including 48 planets.

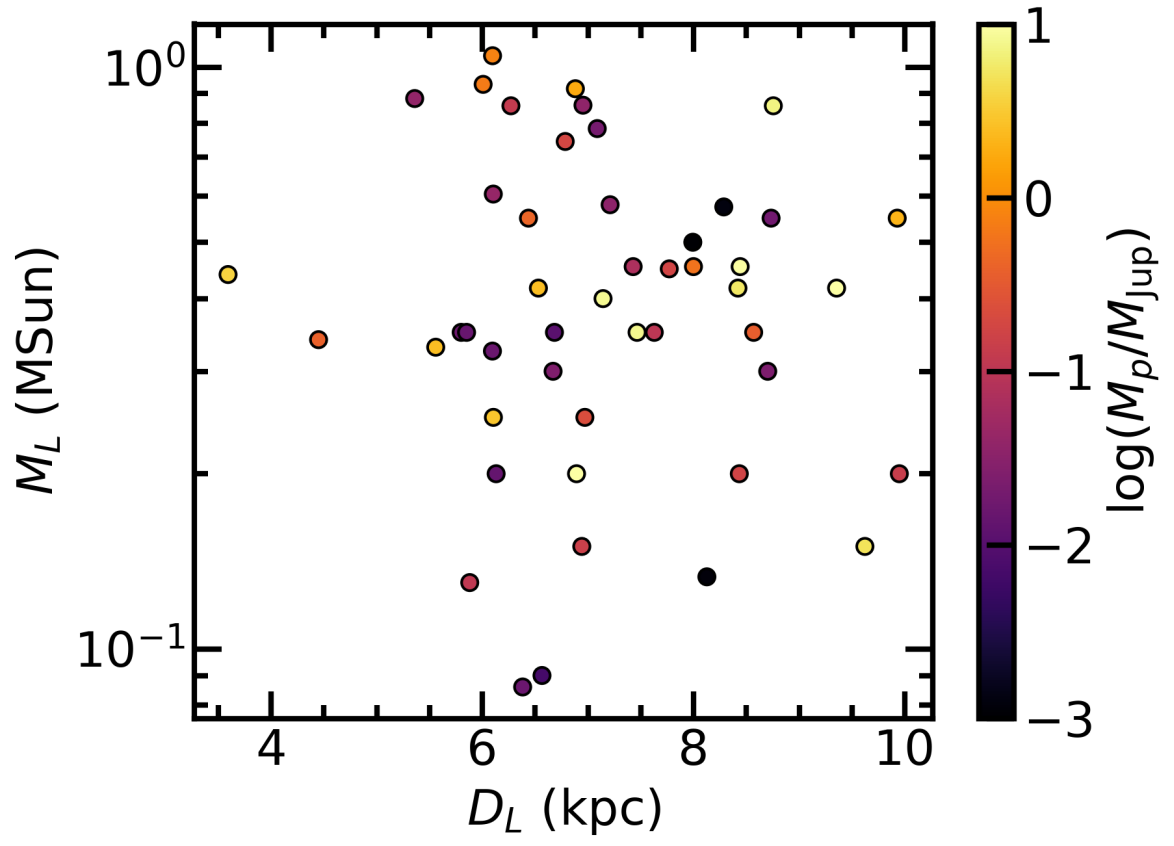


Figure 2. Host system properties for the 48 planets.

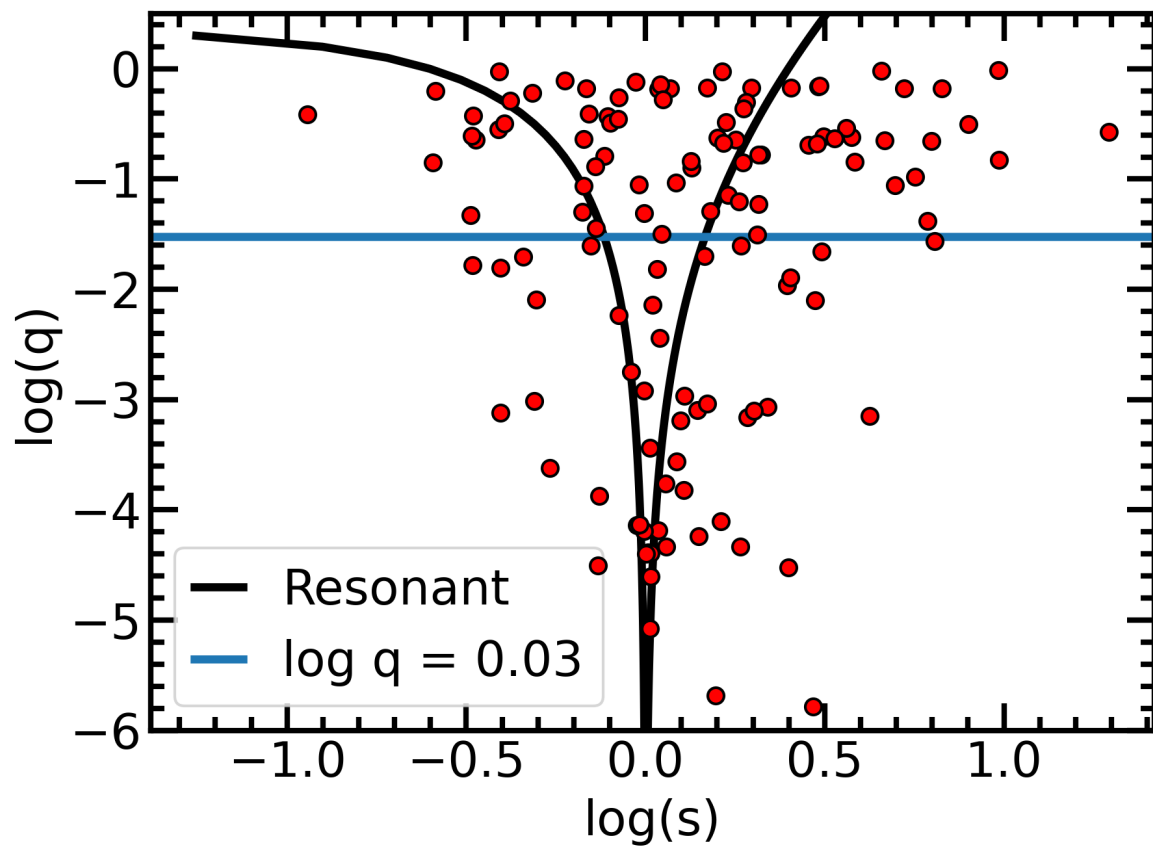


Figure 3. $\log s$ and $\log q$ of the 126 2L1S light curves. $\log q = 0.03$ is the traditional cutoff for defining a “planet” in this space. Black lines show the borders of the “resonant caustic” region centered on $\log s = 0$.