

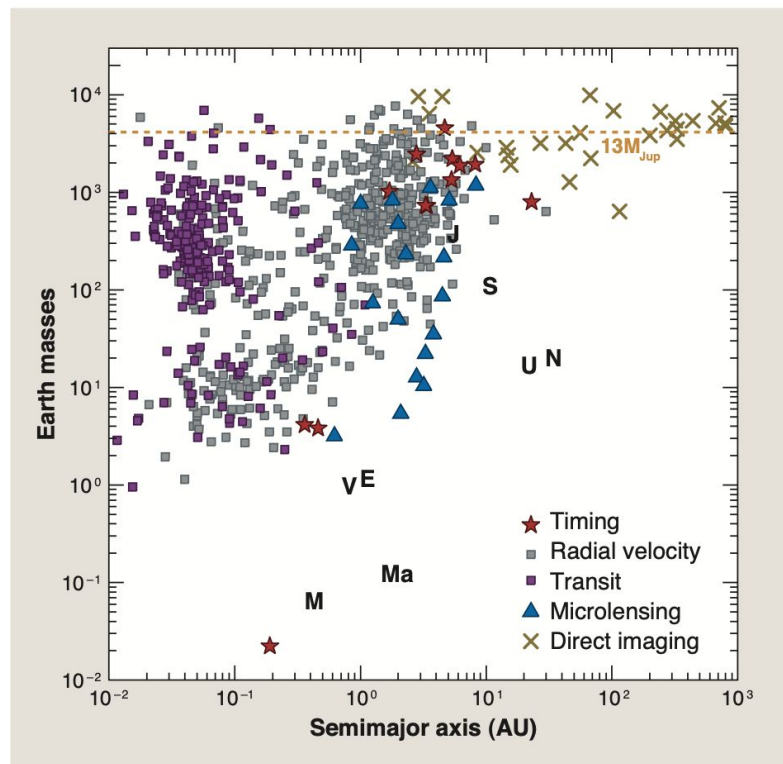
**november 23rd, 2024**

exoplanet classification

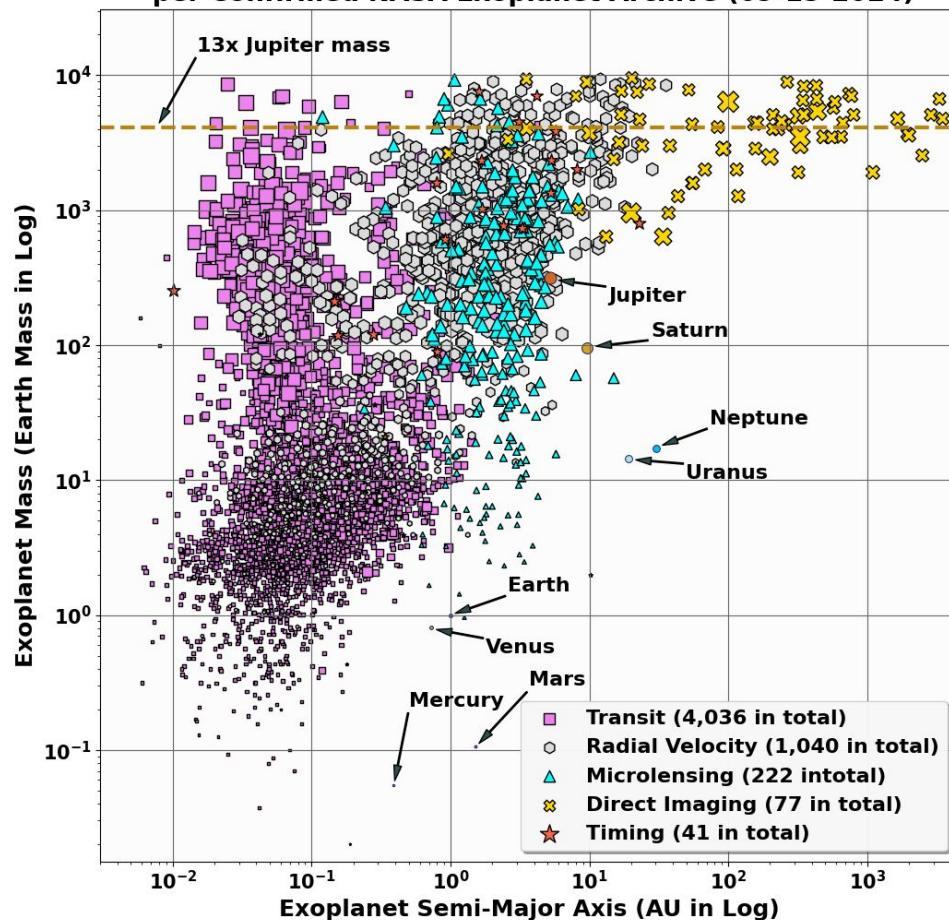
# workflow

- modifying the seager paper, both graphs 1 and 2

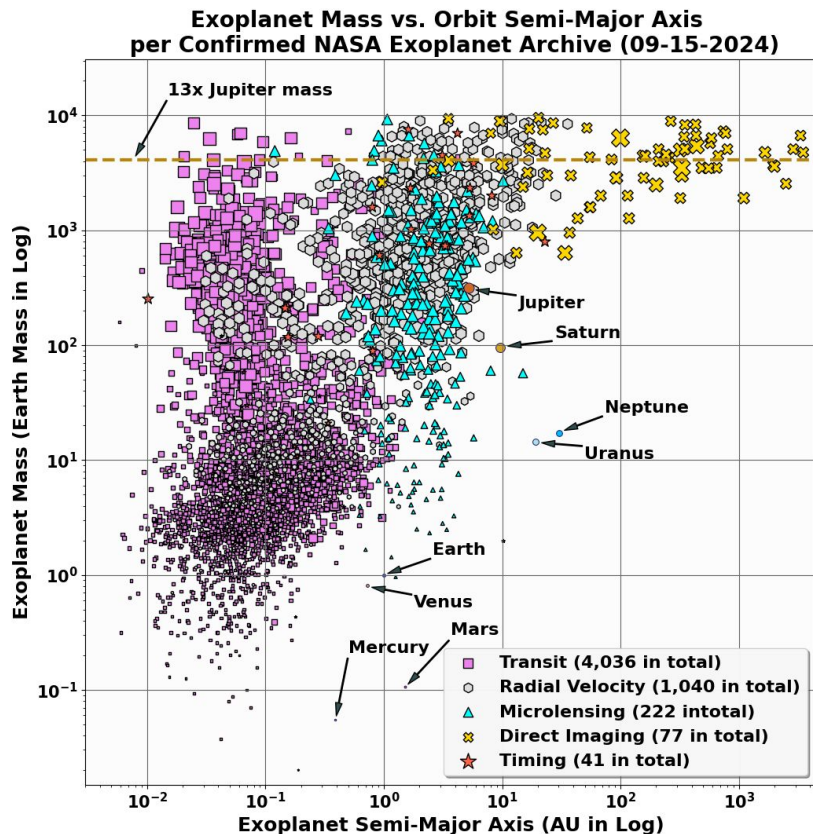
# updated graph 1



Exoplanet Mass vs. Orbit Semi-Major Axis  
per Confirmed NASA Exoplanet Archive (09-15-2024)

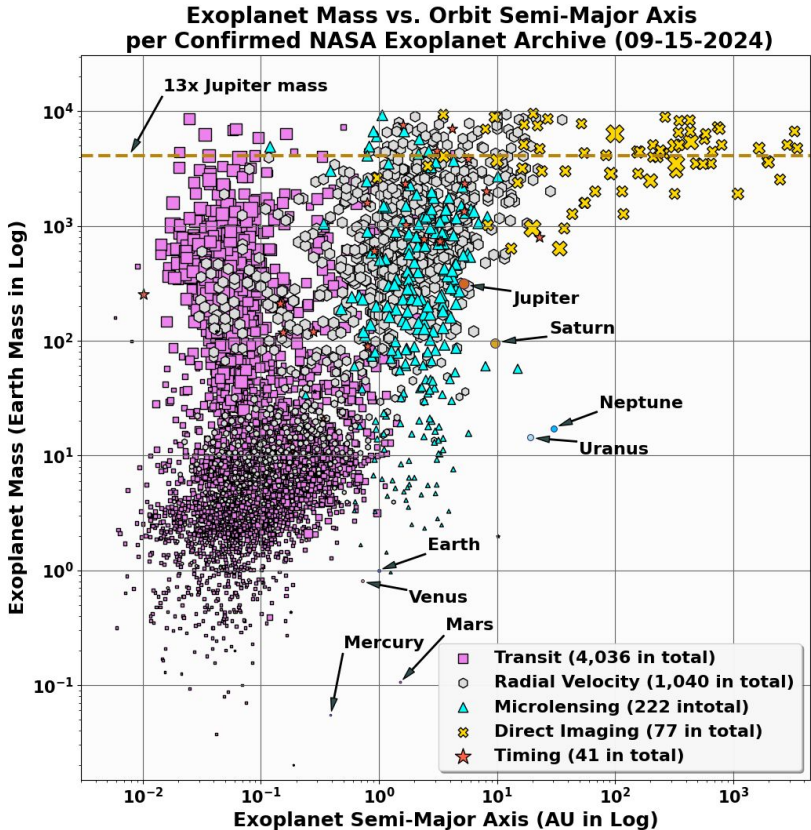


# updated graph 1



- included solar system figures
- newer methods (transit specifically) reveal a ton of new smaller planets, likely because of the nature of the method of discovery
- solar system planets seem to be further than standard for their masses.
  - consider writing about this in findings for mini paper?
- all “**timing**” discovery combined

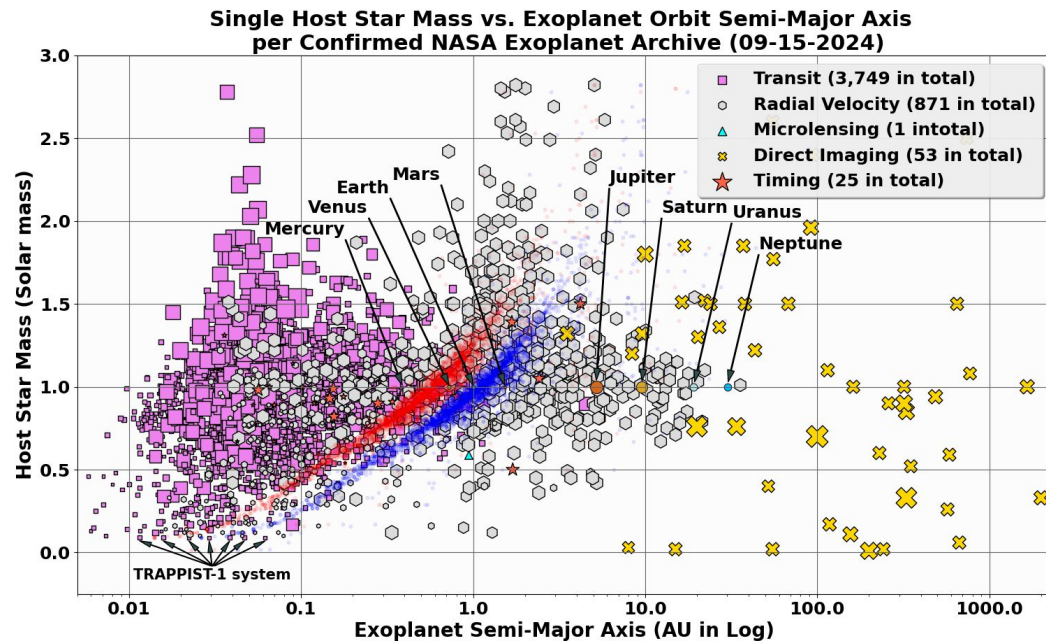
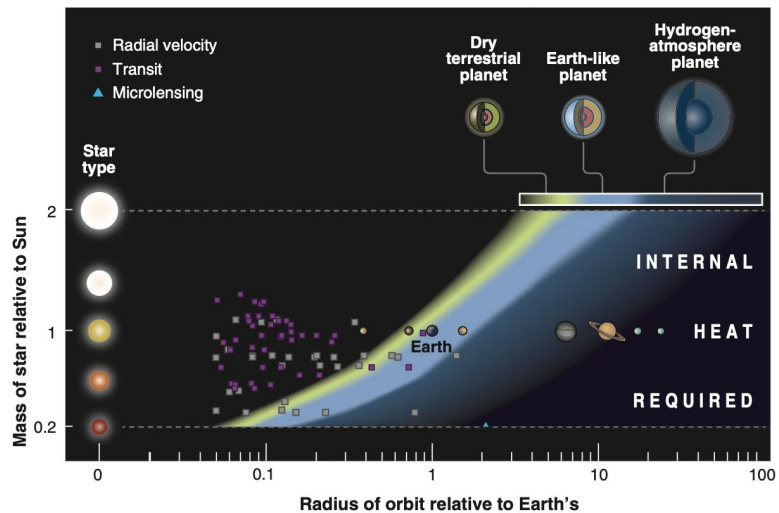
# updated graph 1



- all “timing” discovery combined

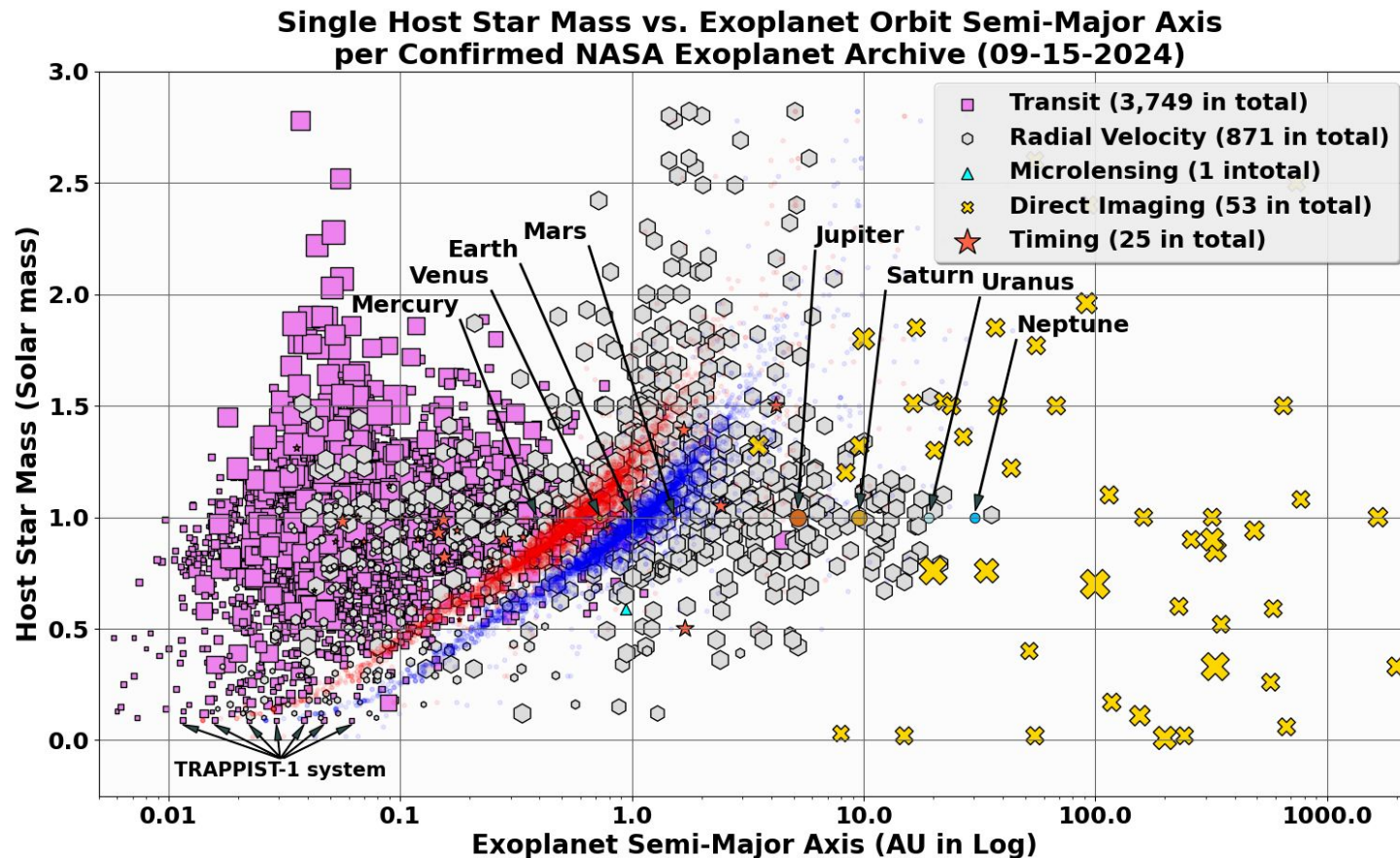
discoverymethod	count
Transit	4036
Radial Velocity	1040
Microlensing	222
Imaging	77
Transit Timing Variations	24
Eclipse Timing Variations	10
Pulsar Timing	6
Astrometry	3
Disk Kinematics	1
Orbital Brightness Modulation	1
Pulsation Timing Variations	1

# updated graph 2





# updated graph 2



## **ongoing work**

- try to train a neural network model for exoplanet habitability prediction