Q1: How did the Kepler mission search for planets?
Q2: Why is direct detection of extrasolar planets so difficult? (Hint: consider the brightness of the planet and the brightness of the home star.)
Q3: Currently, there are relatively few Earth-sized exoplanets known. In the context of selection effects, does this mean that such planets are truly rare?
Q4: Why are “hot Jupiters” surprising? (Hint: your answer should include the “frostline”.)
Q5: Would we expect to find a life-bearing terrestrial planet in a solar system with hot (or eccentric) Jupiters? Note: I am not asking about life on the hot/eccentric Jupiter itself, or on its moons! I am asking about the prospects of life on a terrestrial planet in the system.