



Definition of planets from the point of view of celestial mechanics

I. Kitiashvili

Kazan University, Kazan, Russia (Irina.Kitiashvili@ksu.ru/FAX +7 8432 924454)

Presently, the status of planets is used for many celestial objects. This situation is not only with Pluto. If the division line between stars and planets is determined by the critical mass sufficient for nuclear reactions then how can we classify massive exoplanets with very high eccentricity (e.g. HD 80606b with $e=0.9$)? In this presentation, I will discuss a possible definition of planets with high eccentricity from the point of view of the dynamics of planetary systems and interaction between planets and their parent stars.