

Working Within the System

Discoveries about our solar system come principally from astronomy and cosmology, but math plays a role, too. The existence of the planet Neptune was predicted by mathematicians, based on Newton's law of gravitation, before anyone even dreamt of an eighth planet. Recently, integral and differential equations, along with mathematical models, have dramatically increased the accuracy of estimates of the length of Saturn's day. And applying probability and statistics to the chemical composition of simulations of growing planets early in the solar system's history have bolstered the impact theory about the Moon's origin.

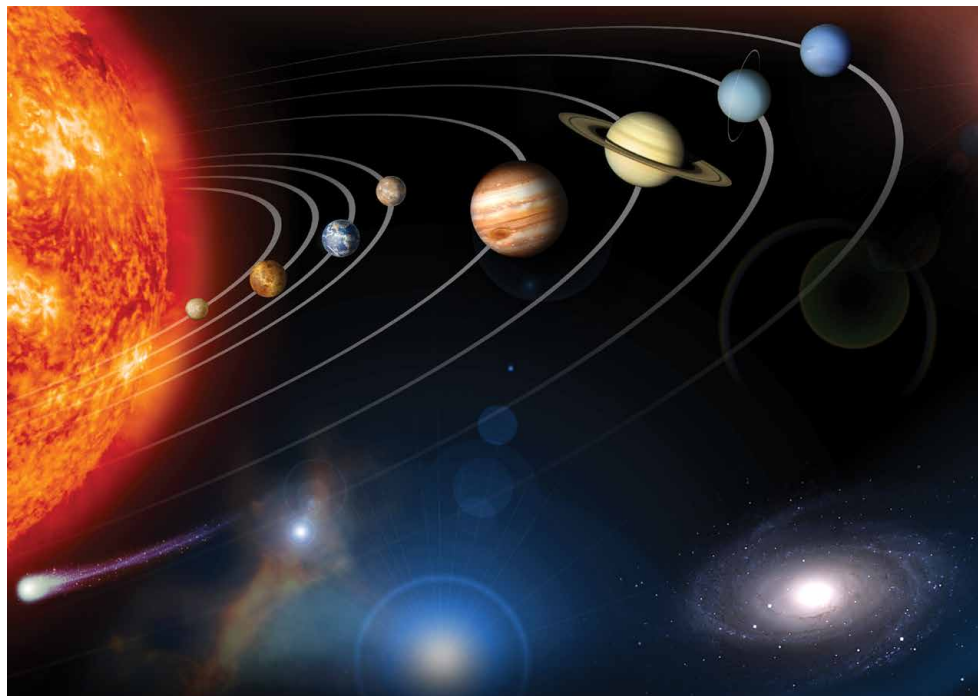


Image courtesy of NASA/JPL.

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