6.6: The Nebular Theory- Proplyds

What Evidence do we have of a Nebular Theory-type development?

We have observed discs of gas and dust around other stars. We can also see evidence of stars and planets forming in clouds of gas and dust; young planet systems in the making are called Proplyds. Other disk-forming evidence found throughout the Universe includes spiral galaxies. Computer modeling is used to model formation of stellar systems, like our solar system.

A Hubble Space Telescope view of a small portion of the Orion Nebula, captured by the Wide Field and Planetary Camera 2, reveals five young stars. Four of the stars are surrounded by gas and dust trapped as the stars formed, but were left in orbit about the star. These are possibly protoplanetary disks, or proplyds, that might evolve on to agglomerate planets. The proplyds which are closest to the hottest stars of the parent star cluster are seen as bright objects, while the object farthest from the hottest stars is seen as a dark object. The field of view is only 0. 14 light-years across.

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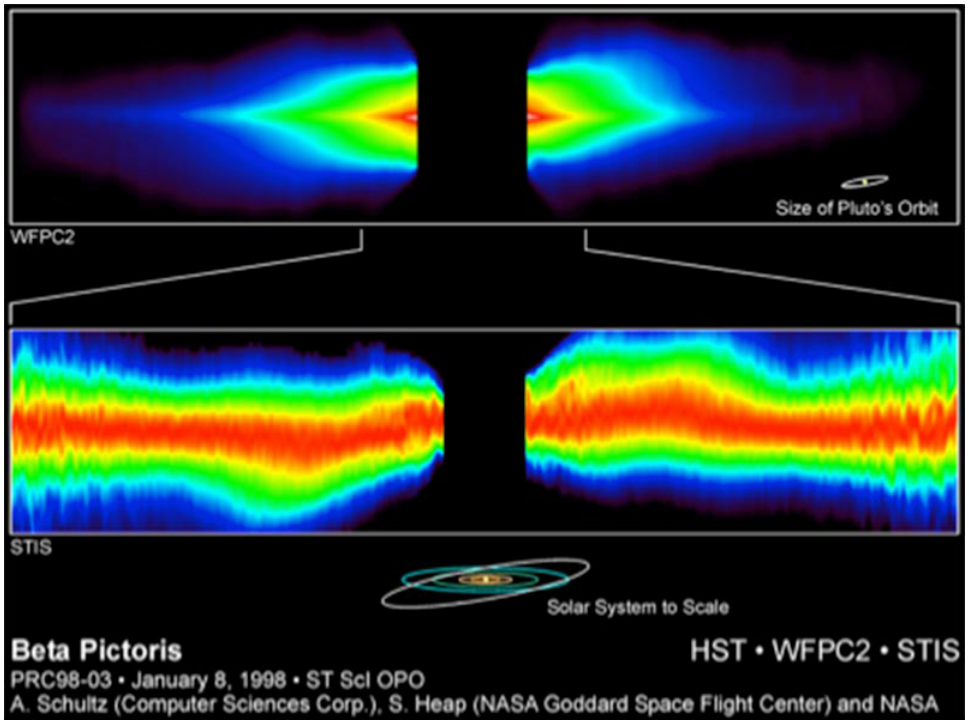

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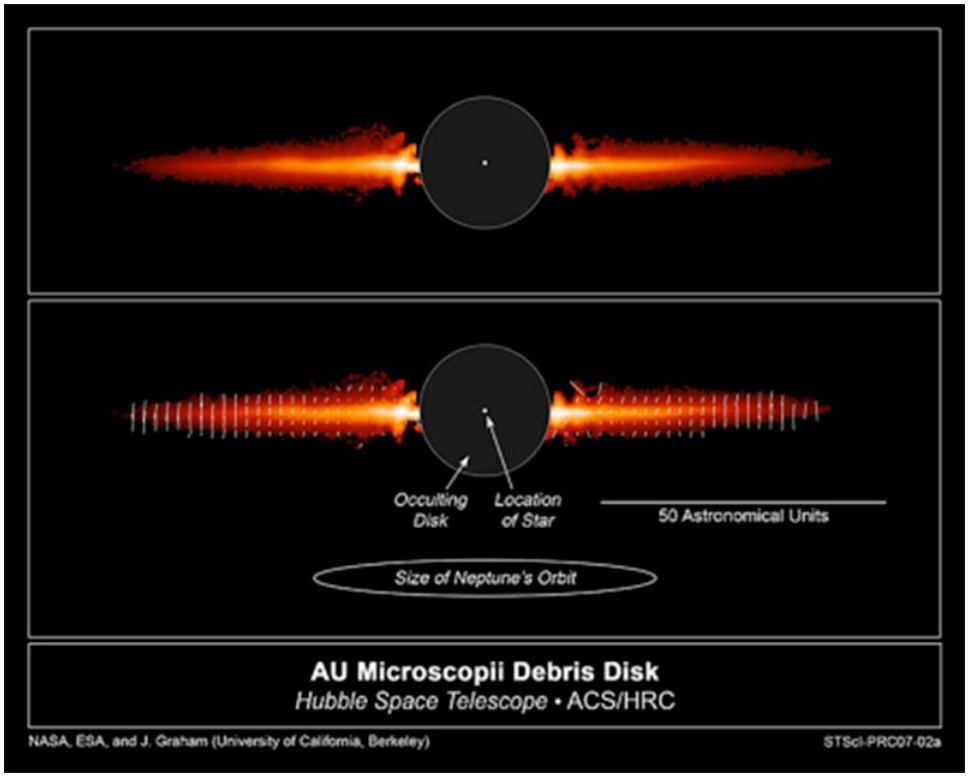

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