

Formation of a new planet photographed for the first time ever



For the first time in the history of space science, scientists have photographed the genesis of a new planet - that will help us better understand the formation of Earth. The cosmic body discovered by scientist is thought to be that planet is named PDS 70b after the name of its parent star, PDS 70 millions of light years away from Earth.

Miriam Keppler, an astronomer at Max Planck Institute for Astronomy (MPIA) in Heidelberg, Germany has opened up new doors in the field of space science while experimenting with a new generation space imaging instrument called SPHERE. While studying young stars and their planets, Miriam and her colleagues captured a snap of the newly found planet forming around the dwarf star PDS 70, by using SPHERE with the VLT (Very Large Telescope), a huge telescope at an Observatory at Chile. This was the first time ever, in the history of space science that the process of genesis of a planet was photographed.

Since the VLT works on principle of suppressing the light coming from the star in order to view its surroundings clearly, the light from the star PDS 70 was blocked and the light from a surrounding massive object drew the attention of the scientists. An object, large enough to attract surrounding particles due to its gravity was found in proximity to the star, and they concluded it to be a newborn gas planet. Named as PDS 70b, the baby planet is almost like Jupiter due to its heavy mass, surface temperature and process of formation and still growing in size.

Perhaps, new cosmic discovery helped scientists to better understand the process of formation of new planet and even the genesis of PDS 70b followed the conventional theory of planet formation: gradual coalescence of particles and gas due to gravity of subsequent mass formed. This testifies the experiment carried out by a NASA astronaut, Donald Pettit, in 2003, as he put some salt in a zip-lock bag at the International Space Station at the height of 200 miles above the surface of earth. He shook the bag and let the particles interact with each other and the particles moved around like snow flakes at first and started condensing to form a mass that seemed to be inseparable afterwards.