

Image: The Greatest Stars

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ImageCredit: NASA, ESA, and J. Maíz Apellániz (Instituto de Astrofísica de Andalucía, Spain)

The small open star cluster Pismis 24 lies in the core of the NGC 6357 nebula in Scorpius, about 8,000 light-years away from Earth.

The brightest object in the center of this image is designated Pismis 24-1 and was once thought to weigh as much as 200 to 300 solar masses. This would not only have made it by far the most massive known star in the galaxy, but would have put it considerably above the currently believed upper mass limit of about 150 solar masses for individual stars.

However, [Hubble Space Telescope](#) high-resolution images of the star show that it is really two stars orbiting one another that are each estimated to be 100 solar masses.

In addition, spectroscopic observations with ground-based telescopes further reveal that one of the stars is actually a tight binary that is too compact to be resolved even by Hubble. This divides the estimated mass for Pismis 24-1 among the three stars. Although the [stars](#) are still among the heaviest known, the mass limit has not been broken due to the multiplicity of the system.

The images of NGC 6357 were taken with Hubble's Wide Field and Planetary Camera 2 in April 2002.

Provided by JPL/NASA

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