

NGC 6302

[Hubble](#) image

NGC 6302, also known as the **bug nebula** or the **butterfly nebula**, is a [planetary nebula](#) in the [constellation](#) of [Scorpius](#). It is about 3.4 thousand [light-years](#) away from [Earth](#).

The spectrum of NGC 6302 shows that its central star is one of the hottest stars in the galaxy. Its surface temperature is over 250,000 degrees [Celsius](#). This means the star from which it formed must have been very large.

The central star, a [white dwarf](#), was only recently discovered by the upgraded [Wide Field Camera 3](#) on board the [Hubble Space Telescope](#).^[1]

The star now has a mass of about 0.64 solar masses. It is surrounded by a dense disc of gas and dust. This dense disc may have caused the star's outflows to form a bipolar structure like an [hour-glass](#). This bipolar structure shows many interesting features seen in planetary nebulae such as ionization walls, knots and sharp edges to the lobes.

References

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1. [↑] Szyszka C. *et al* 2009, Detection of the central star of the planetary nebula NGC 6302. *Astrophysical Journal Letters*, **707**: L32–L36, arXiv: 0909.5143, Bibcode:2009ApJ...707L..32S, [doi: iopscience.iop.org/article/10.1088/0004-637X/707/1/L32/meta](https://doi.org/10.1088/0004-637X/707/1/L32/meta)

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