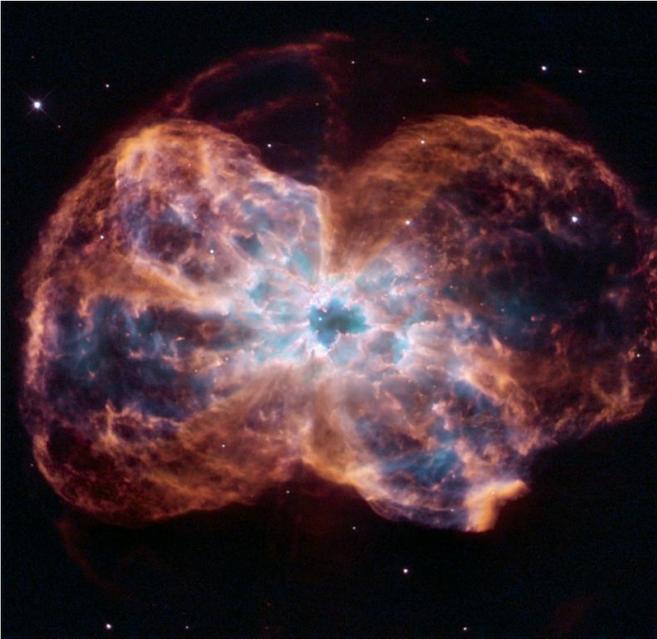


# Hubble views a colorful demise of a sun-like star

26 September 2016



Credit: NASA, ESA, and K. Noll (STScI),  
Acknowledgment: The Hubble Heritage Team  
(STScI/AURA)

This image, taken by the NASA/ESA Hubble Space Telescope, shows the colorful "last hurrah" of a star like our sun. The star is ending its life by casting off its outer layers of gas, which formed a cocoon around the star's remaining core. Ultraviolet light from the dying star makes the material glow. The burned-out star, called a white dwarf, is the white dot in the center. Our sun will eventually burn out and shroud itself with stellar debris, but not for another 5 billion years.

Our Milky Way Galaxy is littered with these stellar relics, called planetary nebulae. The objects have nothing to do with planets. Eighteenth- and nineteenth-century astronomers called them the name because through small telescopes they resembled the disks of the distant planets Uranus

and Neptune. The [planetary nebula](#) in this image is called NGC 2440.

The white dwarf at the center of NGC 2440 is one of the hottest known, with a surface temperature of more than 360,000 degrees Fahrenheit (200,000 degrees Celsius). The nebula's chaotic structure suggests that the star shed its mass episodically. During each outburst, the star expelled material in a different direction. This can be seen in the two bowtie-shaped lobes. The nebula also is rich in clouds of dust, some of which form long, dark streaks pointing away from the star. NGC 2440 lies about 4,000 light-years from Earth in the direction of the constellation Puppis.

The material expelled by the star glows with different colors depending on its composition, its density and how close it is to the hot central star. Blue samples helium; blue-green oxygen, and red nitrogen and hydrogen.

Provided by NASA

APA citation: Hubble views a colorful demise of a sun-like star (2016, September 26) retrieved 17 November 2019 from <https://phys.org/news/2016-09-hubble-views-demise-sun-like-star.html>

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