

Hubble sees red giant blow a bubble

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Credit: ESA/NASA

(Phys.org) -- Camelopardalis, or U Cam for short, is a star nearing the end of its life. As stars run low on fuel, they become unstable. Every few thousand years, U Cam coughs out a nearly spherical shell of gas as a layer of helium around its core begins to fuse. The gas ejected in the star's latest eruption is clearly visible in this picture as a faint bubble of gas surrounding the star.

U Cam is an example of a carbon star, a rare type of star with an atmosphere that contains more carbon than oxygen. Due to its low surface gravity, typically as much as half of the total mass of a carbon star may be lost by way of powerful stellar winds. Located in the constellation of [Camelopardalis](#) (The Giraffe), near the North Celestial Pole, U Cam itself is much smaller than it appears in this Hubble image. In fact, the star would easily fit within a single pixel at the center of the image. Its brightness, however, is enough to saturate the camera's receptors, making the star look much larger than it is.

The shell of gas, which is both much larger and much fainter than its parent star, is visible in intricate detail in Hubble's portrait. This phenomenon is often quite irregular and unstable, but the shell of [gas](#) expelled from U Cam is almost perfectly spherical.

Provided by NASA

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