



## Chandra X-Ray Observatory Center

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**NGC6543:** A planetary nebula, also known as the Cat's Eye.

**Credit:** Left: X-ray Image (Credit: X-ray (NASA/UIUC/Y.Chu et al.), Right: X-ray/Optical Composite (X-ray: NASA/UIUC/Y.Chu et al., Optical: NASA/HST)

The Chandra X-ray Observatory image on the left shows a bright central star surrounded by a cloud of multimillion-degree gas in the planetary nebula known as the Cat's Eye. The central star is expected to collapse into a white dwarf in a few million years. In the right panel, a composite image by Chandra (purple) and by the Hubble Space Telescope (red and green) shows where the hot, X-ray emitting gas appears in relation to the cooler material seen in optical wavelengths. A planetary nebula (so called because it looks like a planet when viewed with a small telescope) is formed when a dying red giant star puffs off its outer layer, leaving behind a hot central core.

**Scale:** Images are 30 arcsec a side.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*