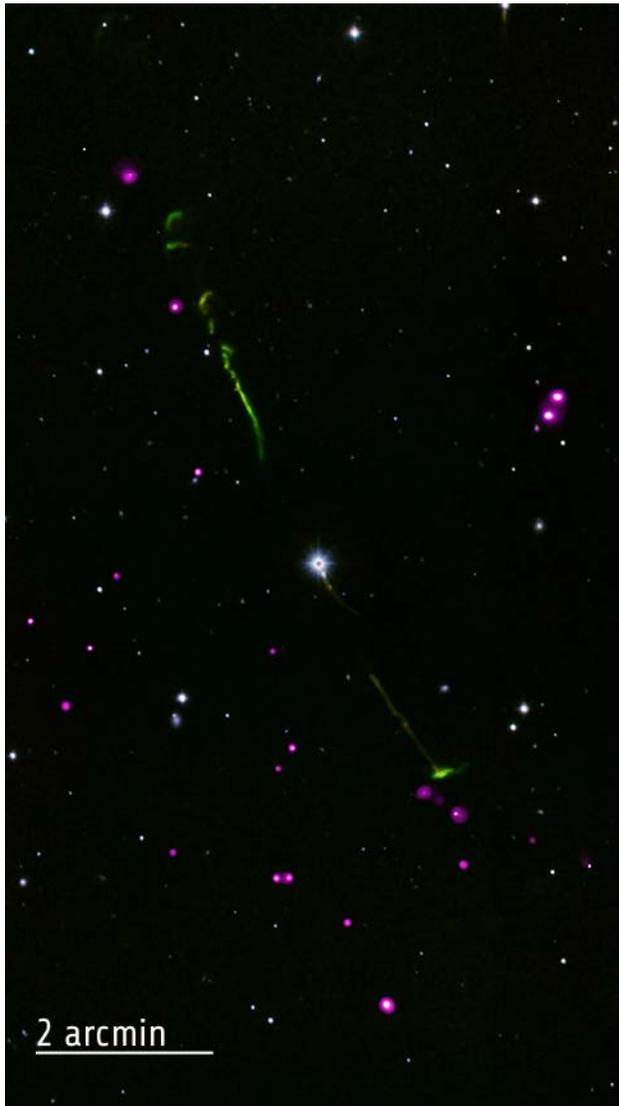




Chandra Science Highlight

Chandra X-ray Observatory ACIS image



Distance Estimate: About 1000 light years

CXC operated for NASA by the Smithsonian Astrophysical Observatory

BP Psc: An Enigmatic Emission-line Star

The composite images show X-ray (purple) and optical data (orange, green and blue) for BP Piscium (BP Psc), a peculiar star thought to be a red giant star.

- BP Psc is surrounded by a dusty and gaseous disk and has a pair of jets several light years long blasting out of the system.
- The star's surface is obscured throughout the visible and near-infrared bands, so the Chandra observation represents the first detection at any wavelength of BP Psc itself.
- The weak X-ray emission is more consistent with that of rapidly rotating giant stars than a young star.
- The X-ray spectrum is consistent with flares occurring on the surface of the star, or with interactions between the star and the disk surrounding it.
- The disk and jets are, likely, remnants of a recent and catastrophic interaction whereby a nearby star or giant planet was engulfed by BP Psc as it expanded in the red giant phase.

References: Kastner, J et al, 2010 ApJL, 719:L65-L68

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