G352.7-0.1: An Ejecta-Dominated Mixed-Morphology Galactic Supernova Remnant

A composite of X-ray (blue), optical (white), infrared (orange) and radio (pink) images of the supernova remnant G352.7-0.1.

- The X-ray emission from in G352.7-0.1 is from two components: About 2.5 solar masses of hot (about 30 MK) ejecta from the exploded star, and about 45 solar masses of cooler (about 2 MK) material that has been swept up by the expanding shock wave.

- Most of the radio emission is from a shell, shaped like an ellipse, contrasting with the X-ray emission that fills in the center of the radio ellipse.

- The remarkably high swept-up mass may indicate an unusual evolutionary scenario involving a massive progenitor star interacting with a dense molecular cloud environment.


Credit: X-ray: NASA/CXC/Morehead State Univ/T.Pannuti et al.; Optical: DSS; Infrared: NASA/JPL-Caltech; Radio: NRAO/VLA/Argentinian Institute of Radioastronomy/G.Dubner

Scale: Image is about 14.5 arcmin across (about 1,000 light years).
Distance Estimate: 24,000 light years

Instrument: Chandra ACIS Observation
CXC Operated for NASA by the Smithsonian Astrophysical Observatory

April 2014