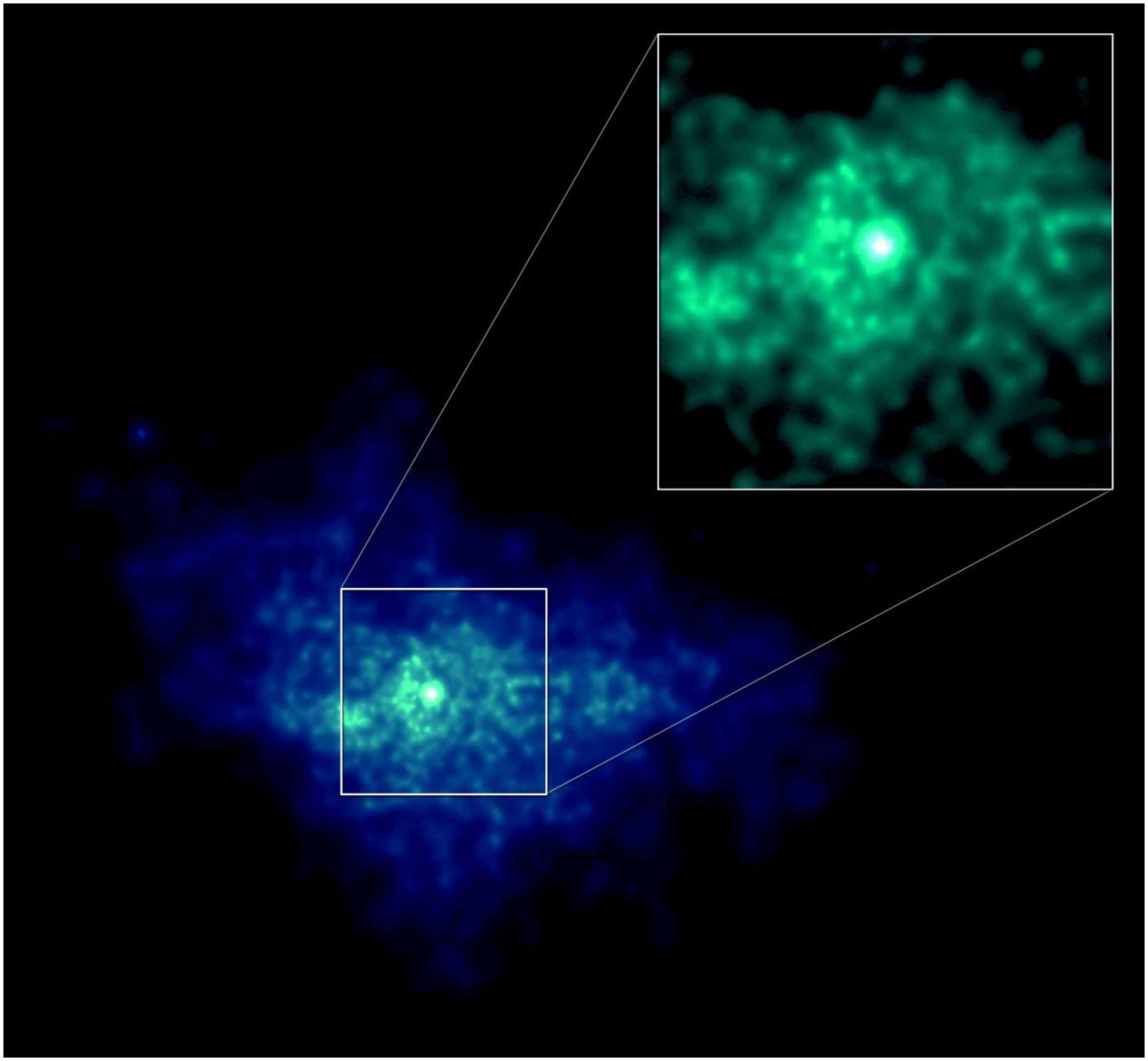

Chandra X-Ray Observatory Center

Harvard-Smithsonian Center for Astrophysics
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SNR G54.1+0.3: A supernova remnant about 16,000 light years from Earth.
Credit: NASA/CXC/U.Mass/F.Lu et al.

Chandra's image of this supernova remnant shows a bright ring of high-energy particles with a central point-like source. This observation enabled scientists to use the giant Arecibo Radio Telescope to search for and locate the pulsar, or neutron star that powers the ring. The ring of particles and two jet-like structures appear to be due to the energetic flow of radiation and particles from the rapidly spinning neutron star rotating 7 times per second. These discoveries will help scientists better understand how neutron stars channel enormous amounts of energy into particles moving near the speed of light.

Scale: Image is 2.7 x 2 arcmin.
Chandra X-ray Observatory ACIS Image