



G21.5-0.9: A supernova remnant in the constellation Scutum.

Credit: NASA/CXC/SAO

G21.5-0.9 is about 16,000 light years from Earth. Chandra's image shows a bright nebula surrounded by a much larger diffuse cloud. Inside the inner nebula is a bright central source that is thought to be a rapidly rotating highly magnetized neutron star. A rotating neutron star acts like a powerful generator, creating intense electric voltages that accelerate electrons to speeds close to the speed of light. The total output of this generator is greater than a thousand Suns. The fluffy appearance of the central nebula, which is about five light years across, is thought to be due to magnetic field lines that constrain the motions of the high-energy electrons.

Scale: Image is 7.5 x 6.2 arcmin.

Chandra X-ray Observatory ACIS Image