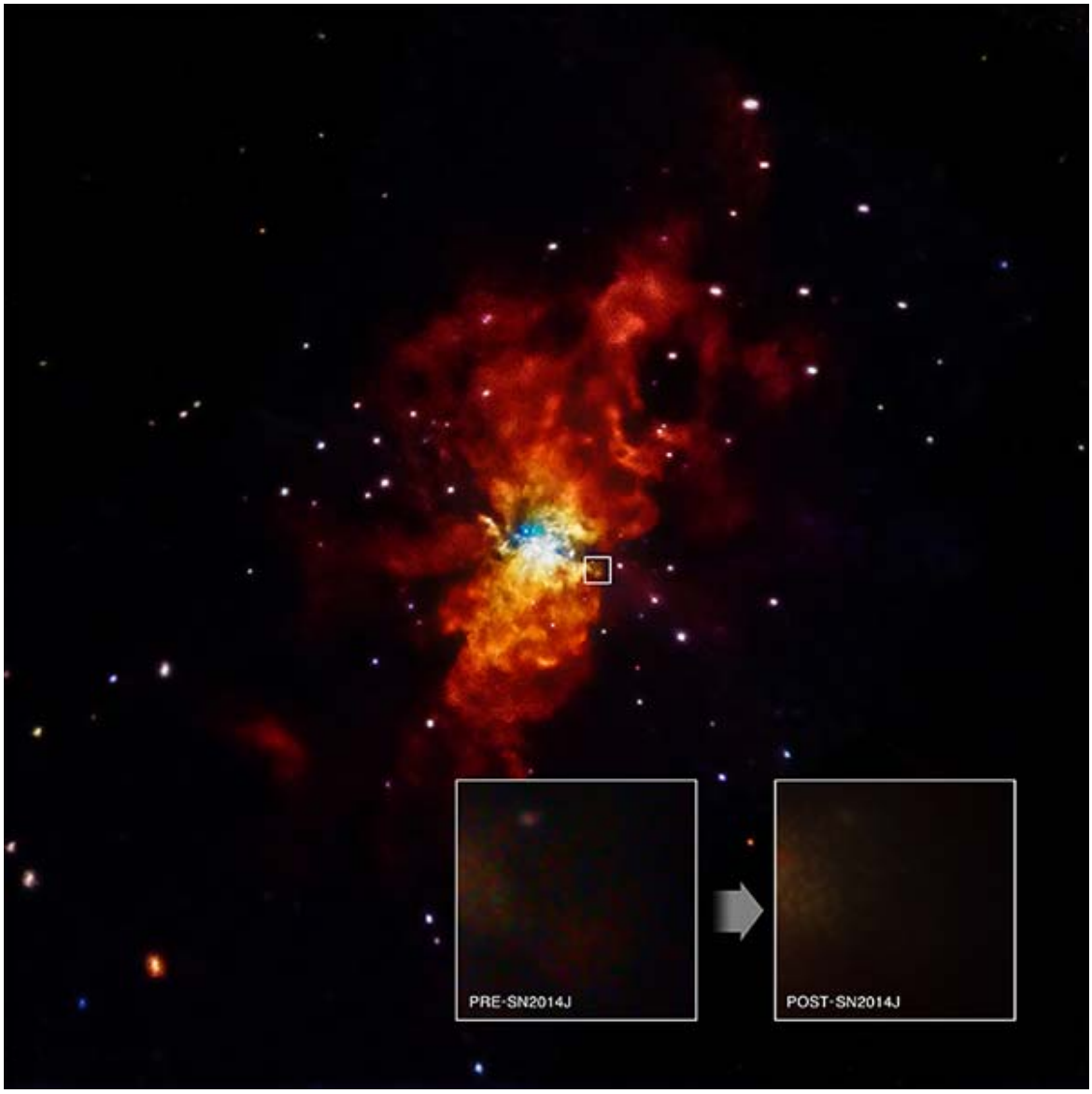

Chandra X-ray Observatory Center

Harvard-Smithsonian Center for Astrophysics
60 Garden St. Cambridge, MA 02138 USA
http://chandra.harvard.edu

M82 SN2014J: A supernova in the galaxy M82 about 11.4 million light years from Earth.
(Credit: NASA/CXC/SAO/R.Margutti et al

Caption: New Chandra data gives insight into the explosion that produced SN 2014J, one of the closest supernovas discovered in decades. SN 2014J is a so-called Type Ia supernova, an important class that astronomers use to measure the expansion of the Universe. This image shows M82 in the low, medium, and high-energy X-rays that Chandra can detect in red, green, and blue respectively. The boxes in the bottom of the image show close-up views of the region around the supernova in data taken prior to the explosion (left), as well as data gathered about three weeks after the supernova went off (right). The lack of X-rays detected by Chandra rules out one mechanism that scientists theorized could cause the star to explode.

Scale: Image is 12.75 arcmin across (42,000 light years across)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory