



**Chandra X-ray
Observatory Center**

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NGC 5195: A small galaxy merging with a larger spiral galaxy about 26 million light years from Earth.
(Credit: X-ray: NASA/CXC/Univ of Texas/E.Schlegel et al; Optical: NASA/STScI)

Caption: Using Chandra observations, astronomers have discovered the nearest supermassive black hole to Earth that is currently undergoing powerful outbursts. This main panel shows the galaxy M51 in visible light from Hubble (red, green, and blue). The box at the top outlines the Chandra image in this study, which focuses on the smaller component of M51, NGC 5195. In the inset, a pair of arcs can be seen in the Chandra data (blue) and is evidence for outbursts from the supermassive black hole at the center of NGC 5195. Such outbursts are important in the evolution of the black hole and the galaxy it inhabits.

Scale: Main image is about 6 x 10 arcmin (About 45,000 x 76,000 light years) Pullout image is 3 arcmin across (about 23,000 light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory