



**Chandra X-Ray
Observatory Center**

Harvard-Smithsonian Center for Astrophysics
60 Garden Street, Cambridge, MA 02138
<http://chandra.harvard.edu>

Andromeda Galaxy (M31): The central region of our nearest neighbor spiral galaxy, at a distance of two million light years.

Credit: X-ray: NASA/SAO/CXC/M.Garcia et al.; Optical: NASA/GSFC/T.Brown et al.

This image of the central region of the Andromeda Galaxy is a composite of Chandra X-ray data (3 pixelated sources) and Hubble optical data (red contours). A supermassive black hole is thought to be within the highest optical contour on the lower right. These highly accurate positions show that the very cool X-ray source (blue) previously identified with the supermassive black hole in the center of the galaxy is actually about 10 light years south of the center. A second, hotter X-ray source, is found to be at a position consistent with the position of the supermassive black hole.

Scale: X-ray image is 1 arcmin on a side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory