



**Chandra X-Ray
Observatory Center**

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Andromeda Galaxy (M31): Our nearest neighbor spiral galaxy at a distance of two million light years.
Credit: NASA/CXC/SAO

This X-ray image shows the central portion of the Andromeda Galaxy. The blue dot in the center of the image is an unusual "cool" million degree X-ray source of unknown nature. Just above this cool source is a source (yellow) that is thought to be due to X-rays from matter swirling toward a supermassive black hole in the nucleus of the galaxy. This black hole contains the mass of 30 million suns. Numerous other X-ray sources are also apparent. Most of these are probably due to X-ray binary systems, in which a neutron star or black hole is in a close orbit around a normal star.

Scale: Image is 1 arcmin on a side.
Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
