



**Chandra X-ray
Observatory Center**

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

XJ1417+52: A black hole found in the outer regions of a galaxy about 4.5 billion light years from Earth.
(Credit: X-ray: NASA/CXC/UNH/D.Lin et al; Optical: NASA/STScI)

Caption: Using Chandra and XMM-Newton, astronomers have discovered an extremely luminous, variable X-ray source located outside the core of its parent galaxy. This black hole likely has a mass of about 100,000 Suns, and may have once been part of a smaller galaxy that merged with a larger one, leaving this black hole on the outskirts of the combined galaxy. Scientists refer to such objects as "wandering" black holes.

Scale: Image is about 2.9 arcmin across (about 3.13 million light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
