



**Chandra X-ray
Observatory Center**

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Phoenix Cluster: A galaxy cluster located at a distance of about 5.8 billion light years
(Credit: X-ray: NASA/CXC/MIT/M.McDonald et al; Radio: NRAO/VLA; Optical: NASA/STScI)

Caption: The Phoenix galaxy cluster contains the first confirmed supermassive black hole that is unable to prevent large numbers of stars from forming in the core of the galaxy cluster where it resides. A new composite image shows X-rays detected with Chandra from hot gas (purple) and radio emission detected with the VLA from jets produced by the black hole (red). Optical light data from Hubble show galaxies (yellow) and filaments of cooler gas where stars are forming (light blue). This result gives new details about the dramatic effects that black holes can have on the galaxy clusters where they are found.

Scale: Image is 45 arcsec (about 990,000 light years) across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
