



**Chandra X-ray  
Observatory Center**

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**Phoenix Cluster:** A galaxy cluster nicknamed the “Phoenix Cluster” located about 5.7 billion light years from Earth.

(Credit: X-ray: NASA/CXC/MIT/M.McDonald et al; Optical: NASA/STScI)

**Caption:** New observations of the galaxy cluster SPT-CLJ2344-4243 at X-ray, ultraviolet, and optical wavelengths are helping astronomers better understand this extraordinary system. Chandra data (blue) reveal large cavities in the X-rays, which have been combined in this composite image with optical data from Hubble (red, green, and blue). Astronomers think these X-ray cavities were carved out of the surrounding gas by powerful jets of high-energy particles emanating from near a supermassive black hole in the central galaxy of the cluster. Massive filaments of gas and dust, which extend for 160,000 to 330,000 lights years, surround the X-ray cavities.

**Scale:** Image is about 1.2 arcmin across (about 1.5 million light years)

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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