



**Chandra X-Ray  
Observatory Center**

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**Perseus A (NGC 1275):** Central galaxy in the large galaxy cluster Perseus.  
**Credit:** NASA/IOA/A. Fabian et al.

The Chandra image of Perseus A shows a supergiant galaxy in the center of a galaxy cluster and provides new insight into how the galaxy has grown by cannibalizing gas and other galaxies in the vicinity. A galaxy with "only" about 20 billion stars is falling into Perseus A (located at two o'clock from the center of the image) and shows up as a small dark patch due to absorption of X rays by cool gas in the infalling galaxy. The large twin dark cavities are thought to be buoyant magnetized bubbles of energetic particles produced by energy released from the vicinity of the giant black hole in the center of the galaxy.

**Scale:** Image is 3.5 arcmin square.

*Chandra X-Ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*