



**Chandra X-ray
Observatory Center**

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RBS 797: A galaxy cluster located about 3.9 billion light years from Earth.
(Credit: X-ray: NASA/CXC/Univ. of Bologna/F. Ubertosi; Optical: NASA/STScI/M.Calzadilla;)

Caption: Four enormous cavities, or bubbles, have been found at the center of the RBS 797 galaxy cluster using Chandra. Hot gas that envelopes the individual galaxies is invisible in optical light (seen in a Hubble image on left), but it is detected in X-rays by Chandra (right). Scientists have seen many pairs of X-ray cavities before in other galaxy clusters, but four in the same cluster is very rare. The researchers think the quartet of cavities represents the essentially simultaneous explosive activity of a pair of supermassive black holes at the center of the galaxy cluster.

Scale: X-ray & optical images are about 1 arcmin (1.1 million light years) across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
