



**Chandra X-ray
Observatory Center**

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CL 0542-4100 & CL 0848.6+4453: Two clusters of galaxies about 5.7 billion light years from Earth.
(Credit: NASA/CXC/Ohio State Univ./J.Eastman et al)

Caption: These galaxy clusters show that younger, more distant galaxy clusters contained far more active galactic nuclei (AGN) than older, nearby ones. It was found that the clusters at 58% of the Universe's current age contained about 20 times more AGN than those at 82% of Universe's age. The galaxies in the earlier Universe contained much more gas that allowed for more star formation and black hole growth. In the Chandra X-ray images, red, green, and blue represent low, medium, and high-energy X-rays.

Scale: Each panel is approx. 10.8 arcmin across

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory