
Caption: Abell 2029 is composed of thousands of galaxies (optical image, right) enveloped in a gigantic cloud of hot gas (X-ray image, left), and an amount of dark matter equivalent to more than a hundred trillion Suns. Both the gas and the galaxies are confined to the cluster primarily by the gravity of the dark matter. If this galaxy cluster is a representative sample of the universe, the Chandra observation indicates that 70 to 90 percent of the mass of the universe consists of dark matter - mysterious particles left over from the dense early universe that interact with each other and "normal" matter only through gravity.

Scale: Each image is 4 arcmin on a side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory