



**Chandra X-ray
Observatory Center**

Harvard-Smithsonian Center for Astrophysics
60 Garden St. Cambridge, MA 02138 USA
<http://chandra.harvard.edu>

IDCS J1426.5+3508: A massive galaxy cluster located about 10 billion light years from Earth.
(Credit: X-ray: NASA/CXC/University of Missouri-Kansas City/M.Brodwin et al; Optical: NASA/STScI; Infrared: JPL/CalTech)

Caption: Astronomers have made the most detailed study yet of an extremely massive young galaxy cluster using three of NASA's Great Observatories. This multi-wavelength image shows this galaxy cluster, IDCS 1426.5+3508, in X-rays from Chandra (blue), visible light from Hubble (green), and infrared light from Spitzer (red). This rare galaxy cluster weighs almost 500 trillion Suns and it was observed when the Universe was less than a third of its current age. It is the most massive galaxy cluster detected at such an early epoch, and, thus, has important implications for understanding how these mega-structures formed and evolved in the young Universe.

Scale: Image is 1.9 arcmin across (about 3 million light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
