



**Chandra X-ray
Observatory Center**

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

il Gioiello Cluster: A galaxy cluster located about 9.6 billion light years from Earth.

(Credit: X-ray: NASA/CXC/INAF/P.Tozzi, et al; Optical: NAOJ/Subaru and ESO/VLT; Infrared: ESA/Herschel)

Caption: The most massive cluster of galaxies with an age of 800 million years or younger has been discovered and studied. X-ray data from Chandra allowed astronomers to accurately determine the mass and other properties of this cluster, nicknamed the "Gioiello" (Italian for "Jewel") cluster. This composite image of the Gioiello Cluster contains X-rays from Chandra (purple), infrared data from Herschel (red), and an optical image from Subaru (red, green, and blue). Results like this help astronomers better understand how galaxy clusters, the largest structures in the Universe held together by gravity, have evolved over time.

Scale: Image is 3.7 arcmin across (about 6.2 million light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory