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JKCS041: A galaxy cluster located about 10.2 billion light years from Earth. (Credit: X-ray: NASA/CXC/INAF/S.Andreon et al Optical: DSS; ESO/VLT)

**Caption:** This is a composite image of the most distant galaxy cluster yet detected. This image contains X-rays from NASA's Chandra X-ray Observatory, optical data from the Very Large Telescope (VLT), and optical and infrared data from the Digitized Sky Survey. This record-breaking object, known as JKCS041, is observed as it was when the Universe was just one quarter of its current age. X-rays from Chandra are displayed here as the diffuse blue region, while the individual galaxies in the cluster are seen in white in the VLT's optical data, embedded in the X-ray emission.

Scale: Image is 370 arcmin across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory