Cluster Merger: Two galaxy clusters located about 1.2 billion light years from Earth. (Credit: X-ray: NASA/CXC/RIKEN/L. Gu et al; Radio: NCRA/TIFR/GMRT; Optical: SDSS)

Caption: This composite image shows galaxy clusters 1E2215 and 1E2216 as they enter a critical phase of merging. Chandra's X-ray data (blue) have been combined with a radio image from the Giant Metrewave Radio Telescope in India (red) and optical view from the SDSS. This result represents the first time that astronomers have found two giant clusters of galaxies that are just about to collide. This is important for understanding the formation of structure in the Universe since large-scale structures -- such as galaxies and galaxy clusters -- are thought to grow by collisions and mergers.

Scale: Image is 30 arcmin across (10 million light years across)