



Chandra X-Ray Observatory Center

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NGC 4438 and NGC 4435: Two galaxies in the Virgo Cluster, about 50 million light years from Earth.

Credit: NASA/CXC/M. Machacek et al.

Chandra's image shows multimillion degree gas in the two galaxies. In NGC 4438, the large galaxy in the lower part of the image, filaments of hot gas have been pulled to the right from the main part of the galaxy. X-ray, optical, and radio observations indicate that these two galaxies bumped into each other about 100 million years ago. During this glancing encounter, gravitational tidal forces tugged at the gas and stars on the outer parts of the galaxies. NGC 4438 was damaged in the collision, but the hot gas will probably fall back into the disk of the galaxy in a few hundred million years. NGC 4435 (upper right), being less massive than NGC 4438, proved to be less crash worthy and appears to have lost most of its hot gas to intergalactic space.

Scale: Image is approx. 397 x 553 arcsec on a side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory