



**Chandra X-Ray  
Observatory Center**

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**Coma Cluster:** A cluster of galaxies about 400 million light years from Earth in the constellation Coma Berenices.  
**Credit:** NASA/CXC/SAO/A.Vikhlinin et al.

Chandra's image shows two large central galaxies, NGC 4889 (left) and NGC 4874 (right), embedded in a vast 100 million-degree Celsius gas cloud that pervades the cluster. Of particular interest are the concentrations of cooler (10 to 20 million-degrees) gas around these galaxies. The clumps of gas, which are 10,000 light years in diameter, are thought to have been produced by matter ejected from stars in the galaxies over a period of about a billion years. The clouds' temperature is thought to be maintained by a delicate balance between energy lost by X-radiation and energy gained by heat conduction from the hot gas of the cluster.

**Scale:** Image is 16.5 arcmin on a side.  
*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*