



**Chandra X-ray  
Observatory Center**

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**MACS J0025.4-1222:** A powerful collision of two galaxy clusters about 5.6 billion light years away.  
(Credit: X-ray(NASA/CXC/Stanford/S.Allen); Optical/Lensing(NASA/STScI/UC Santa Barbara/M.Bradac))

**Caption:** This image shows a system where two massive galaxy clusters have collided and in doing so have forced the separation between dark and “normal” matter. X-rays from Chandra (pink) show where most of the normal, or baryonic, matter in the cluster resides. Optical data from Hubble (blue) is used to trace the mass. This result helps answer a crucial question about whether dark matter interacts with itself in ways other than via gravitational forces. It also shows that the Bullet Cluster, a similar system, was not an exception and that the earlier results were not the product of some unknown error.

**Scale:** Image is 3.2 arcmin across.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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