



**Chandra X-ray  
Observatory Center**

Harvard-Smithsonian Center for Astrophysics  
60 Garden St. Cambridge, MA 02138 USA  
<http://chandra.harvard.edu>

**SDSS J1254+0846:** A system containing a pair of quasars about 4.6 billion light years away.  
(Credit: X-ray (NASA/CXC/SAO/P. Green et al.), Optical (Carnegie Obs./Magellan/W.Baade  
Telescope/J.S.Mulchaey et al.))

**Caption:** This composite image shows the effects of two galaxies caught in the act of merging. A Chandra X-ray Observatory image shows a pair of quasars in blue, located about 4.6 billion light years away, but separated on the sky by only about 70 thousand light years. These bright sources, collectively called SDSS J1254+0846, are powered by material falling onto supermassive black holes. An optical image from the Baade-Magellan telescope in Chile, in yellow, shows tidal tails – gravitational-stripped streamers of stars and gas -- fanning out from the two colliding galaxies.

**Scale:** Image is 1 arcmin across.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*