



**Chandra X-ray
Observatory Center**

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B3 0727+409: A black hole with an X-ray jet about 11 billion light years from Earth.
(Credit: X-ray: NASA/CXC/ISAS/A.Simionescu et al, Optical: DSS)

Caption: Jets in the early Universe give astronomers a way to probe the growth of black holes at a very early epoch in the cosmos. Using Chandra, astronomers recently discovered a jet in X-rays being illuminated by the cosmic microwave background. The light from this jet was emitted when the Universe was only one fifth of its present age. The main panel of this graphic shows Chandra's X-ray data combined with an optical image, while the inset focuses on the details of the X-ray emission.

Scale: Main Image is 10 arcmin across (16 million light years); Inset image is 46 arcsec across (1.23 million light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory