



**Chandra X-ray
Observatory Center**

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MG B2016+112: A single or pair of growing supermassive black holes located 11.8 billion light-years from Earth.
(Credit: Illustration: NASA/CXC/M. Weiss; X-ray Image (inset): NASA/CXC/SAO/D. Schwartz et al.)

Caption: Astronomers have used gravitational lensing to obtain an unprecedented look at a black hole system in the early Universe. An artist's illustration in the main panel shows how the X-ray light from one of the objects on the left (purple) has been warped by the gravity of an intervening galaxy to produce two sources detected in the Chandra image (dashed square on the right). The light from the fainter object (blue) has been amplified by the galaxy to be as much as 300 times brighter than it would have been without the lensing. The Chandra image is shown in the inset. The two objects are either two growing supermassive black holes, or one black hole and a jet.

Scale: X-ray image (inset) is about 10 arcsec (250,000 light years) across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory