



**Chandra X-ray
Observatory Center**

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Chandra Deep Field South : The deepest X-ray image ever obtained containing objects out to a distance of 12.2 billion light years.

(Credit: NASA/CXC/Penn. State/G. Yang et al & NASA/CXC/ICE/M. Mezcua et al.; Optical: NASA/STScI; Illustration: NASA/CXC/A. Jubett)

Caption: The growth of the biggest black holes in the Universe is outrunning the rate of formation of stars in the galaxies they inhabit, according to two new studies using data from Chandra and other telescopes. In this graphic, an image from the Chandra Deep Field-South (blue) has been combined with an optical and infrared image from the Hubble (red, green, and blue). Each Chandra source is produced by hot gas falling towards a supermassive black hole in the center of the host galaxy, as depicted in the artist's illustration.

Scale: The image is 9.25 arcsec across (574,000 light years across).

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory