



**Chandra X-ray  
Observatory Center**

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**Chandra Deep Field-South:** The deepest X-ray image ever obtained that contains 28 previously misidentified black holes.  
(Credit: X-ray: NASA/CXC/Penn State/B.Luo et al; Illustration: NASA/CXC/M. Weiss.)

**Caption:** By combining deep Chandra observations with data from Hubble, Spitzer, and other telescopes, astronomers have identified 28 black holes in an area of the sky that were previously classified differently. These black holes are labeled in this Chandra Deep Field-South image, where red, green, and blue represent the low, medium, and high-energy X-rays that Chandra detects. The artist's illustration depicts how these black holes are wrapped in cocoons of material, making it difficult to accurately identify them. This discovery has important implications for understanding how supermassive black holes grow and evolve over billions of years.

**Scale:** Image is about 16 arcmin (42 to 51 million light years) across.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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