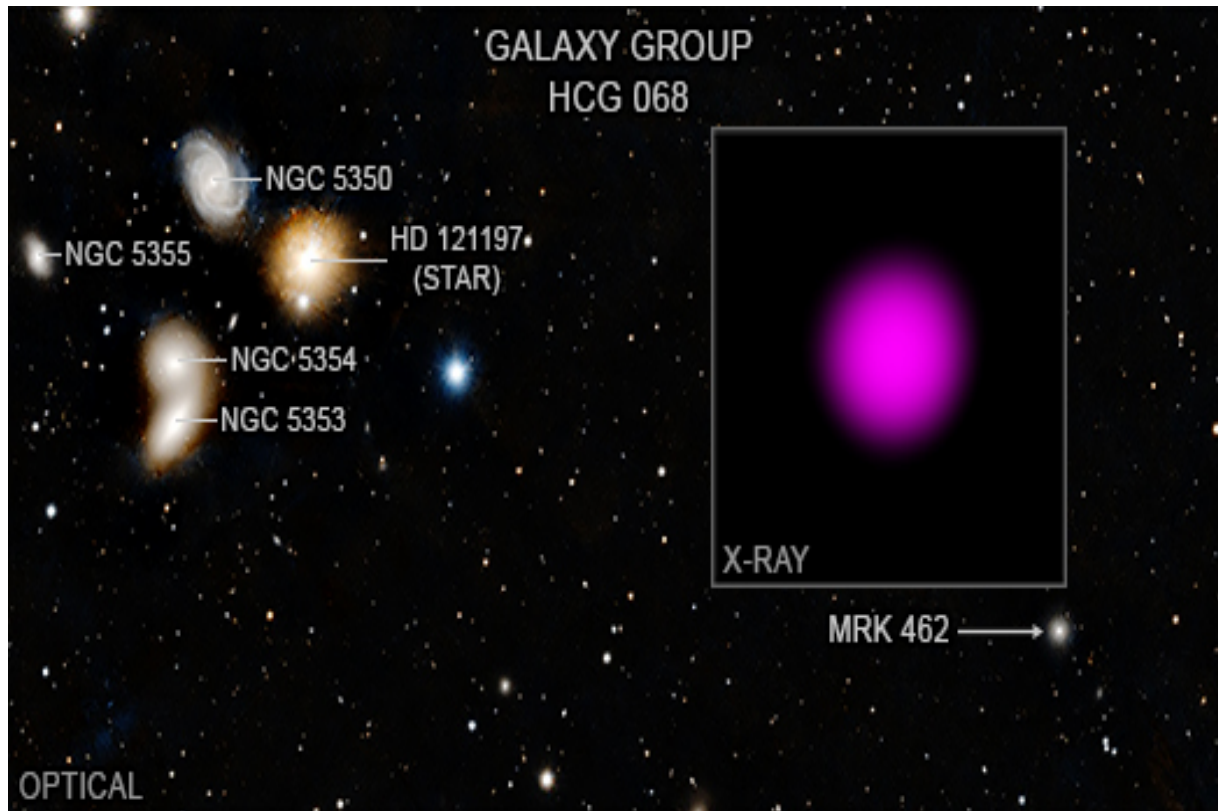




Chandra Science Highlight

"Mini" Monster Black Hole Could Hold Clues to Giant's Growth



- Astronomers have discovered a supermassive black hole in the dwarf galaxy Mrk 462 with NASA's Chandra X-ray Observatory.
- The black hole in Mrk 462 contains about 200,000 solar masses, placing it in the small side of the supermassive category. It is heavily buried by gas.
- This is one of the first times that a heavily buried supermassive black hole has been found in a dwarf galaxy.
- The percentage of dwarf galaxies that have such black holes could indicate how some of the earliest black holes in the Universe formed and grew.

Distance estimate: About 110 million light-years.

Credits: X-ray: NASA/CXC/Dartmouth Coll./J. Parker & R. Hickox; Optical/IR: Pan-STARRS

Caption: Chandra has detected X-rays from the dwarf galaxy Mrk 462 (inset), which reveals the presence of a growing supermassive black hole. The background panel is an optical image from the Pan-STARRS telescope in Hawaii, with several galaxies from the HCG068 galaxy group on the left-hand side and the much smaller Mrk 462 to the lower right. <https://chandra.si.edu/photo/2022/mrk462/>

Instrument: ACIS

Reference: Parker, J. and Hickox, R., 2022, ApJ, in preparation.

The CXC is operated for NASA by the Smithsonian
Astrophysical Observatory



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