



FEBRUARY 2015

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HERCULES A

Some galaxies have extremely bright cores, suggesting that they contain a supermassive black hole that is pulling in matter at a prodigious rate. Astronomers call these “active galaxies,” and Hercules A is one of them. In visible light (colored red, green and blue, with most objects appearing white), Hercules A looks like a typical elliptical galaxy. In X-ray light, however, Chandra detects a giant cloud of multimillion-degree gas (purple). This gas has been heated by energy generated by the infall of matter into a black hole at the center of Hercules A that is over 1,000 times as massive as the one in the middle of the Milky Way. Radio data (blue) show jets of particles streaming away from the black hole. The jets span a length of almost one million light years.

Credit: X-ray: NASA/CXC/SAO, Optical: NASA/STScI, Radio: NSF/NRAO/VLA)