

## **Image: Hubble views the whirling disk of NGC 4526**

October 30 2014



Credit: European Space Agency

This neat little galaxy is known as NGC 4526. Its dark lanes of dust and bright diffuse glow make the galaxy appear to hang like a halo in the



emptiness of space in this image from the NASA/ESA Hubble Space Telescope.

Although this image paints a picture of serenity, the galaxy is anything but. It is one of the brightest lenticular galaxies known, a category that lies somewhere between spirals and ellipticals. It has hosted two known supernova explosions, one in 1969 and another in 1994, and is known to have a colossal <u>supermassive black hole</u> at its center that has the mass of 450 million suns.

NGC 4526 is part of the Virgo cluster of galaxies. Ground-based observations of galaxies in this cluster have revealed that a quarter of these galaxies seem to have rapidly rotating disks of gas at their centers.

The most spectacular of these is this galaxy, NGC 4526, and its spinning disk of gas, dust, and stars reaches out uniquely far from its heart, spanning some seven percent of the galaxy's entire radius.

This disk is moving incredibly fast, spinning at more than 250 kilometers per second. The dynamics of this quickly whirling region were actually used to infer the mass of NGC 4526's central black hole—a technique that had not been used before to constrain a galaxy's central black hole.

This image was taken with Hubble's Wide Field and Planetary Camera 2 and the Advanced Camera for Surveys.

Provided by NASA

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