

Image: Hubble captures NGC 4111

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Credit: ESA/Hubble & NASA, Acknowledgement: Judy Schmidt

The elegant simplicity of NGC 4111, seen here in this image from the NASA/ESA Hubble Space Telescope, hides a more violent history than you might think. NGC 4111 is a lenticular, or lens-shaped, galaxy about

50 million light-years from us in the constellation of Canes Venatici (The Hunting Dogs).

Lenticular galaxies are an intermediate type of galaxy between an elliptical and a spiral. They host aged stars like ellipticals and have a disk like a spiral. However, that's where the similarities end: They differ from ellipticals because they have a bulge and a thin disk, but are different from spirals because lenticular discs contain very little gas and dust, and do not feature the many-armed structure that is characteristic of spiral [galaxies](#). In this image we see the disc of NGC 4111 edge-on, so it appears as a thin sliver of light on the sky.

At first sight, NGC 4111 looks like a fairly uneventful galaxy, but there are unusual features that suggest it is not such a peaceful place. Running through its center, at right angles to the thin disk, is a series of filaments, silhouetted against the bright core of the galaxy. These are made of dust, and astronomers think they are associated with a ring of material encircling the galaxy's core. Since it is not aligned with the galaxy's main disc, it is possible that this polar ring of gas and [dust](#) is actually the remains of a smaller galaxy that was swallowed up by NGC 4111 long ago.

Provided by NASA

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