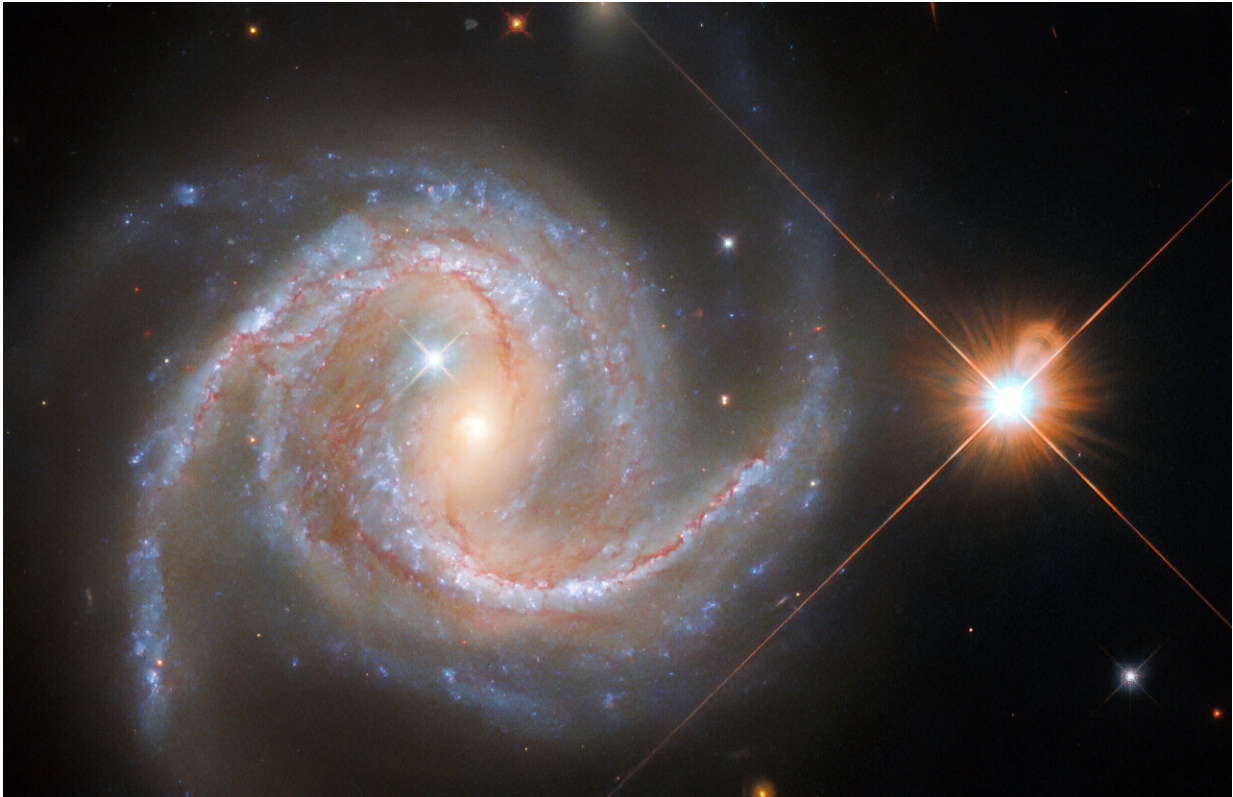


Hubble spies a stately spiral galaxy

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Credit: ESA/Hubble & NASA, J. Greene; CC BY 4.0 Acknowledgement: R. Colombari

The stately sweeping spiral arms of the spiral galaxy NGC 5495 are revealed by the NASA/ESA Hubble Space Telescope's Wide Field Camera 3 in this image. NGC 5495, which lies around 300 million light-years from Earth in the constellation Hydra, is a Seyfert galaxy, a type of

galaxy with a particularly bright central region. These luminous cores—known to astronomers as active galactic nuclei—are dominated by the light emitted by dust and gas falling into a supermassive black hole.

This image is drawn from a series of observations captured by [astronomers](#) studying [supermassive black holes](#) lurking in the hearts of other galaxies. Studying the central regions of galaxies can be challenging: as well as the light created by matter falling into supermassive black holes, areas of star formation and the light from existing stars all contribute to the brightness of galactic cores. Hubble's crystal-clear vision helped astronomers disentangle the various sources of light at the core of NGC 5495, allowing them to precisely weigh its supermassive black hole.

As well as NGC 5495, two stellar interlopers are visible in this image. One is just outside the center of NGC 5495, and the other is very prominent alongside the galaxy. While they share the same location on the sky, these objects are much closer to home than NGC 5495: they are stars from our own Milky Way. The [bright stars](#) are surrounded by criss-cross diffraction spikes, optical artifacts created by the internal structure of Hubble interacting with starlight.

Provided by European Space Agency

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