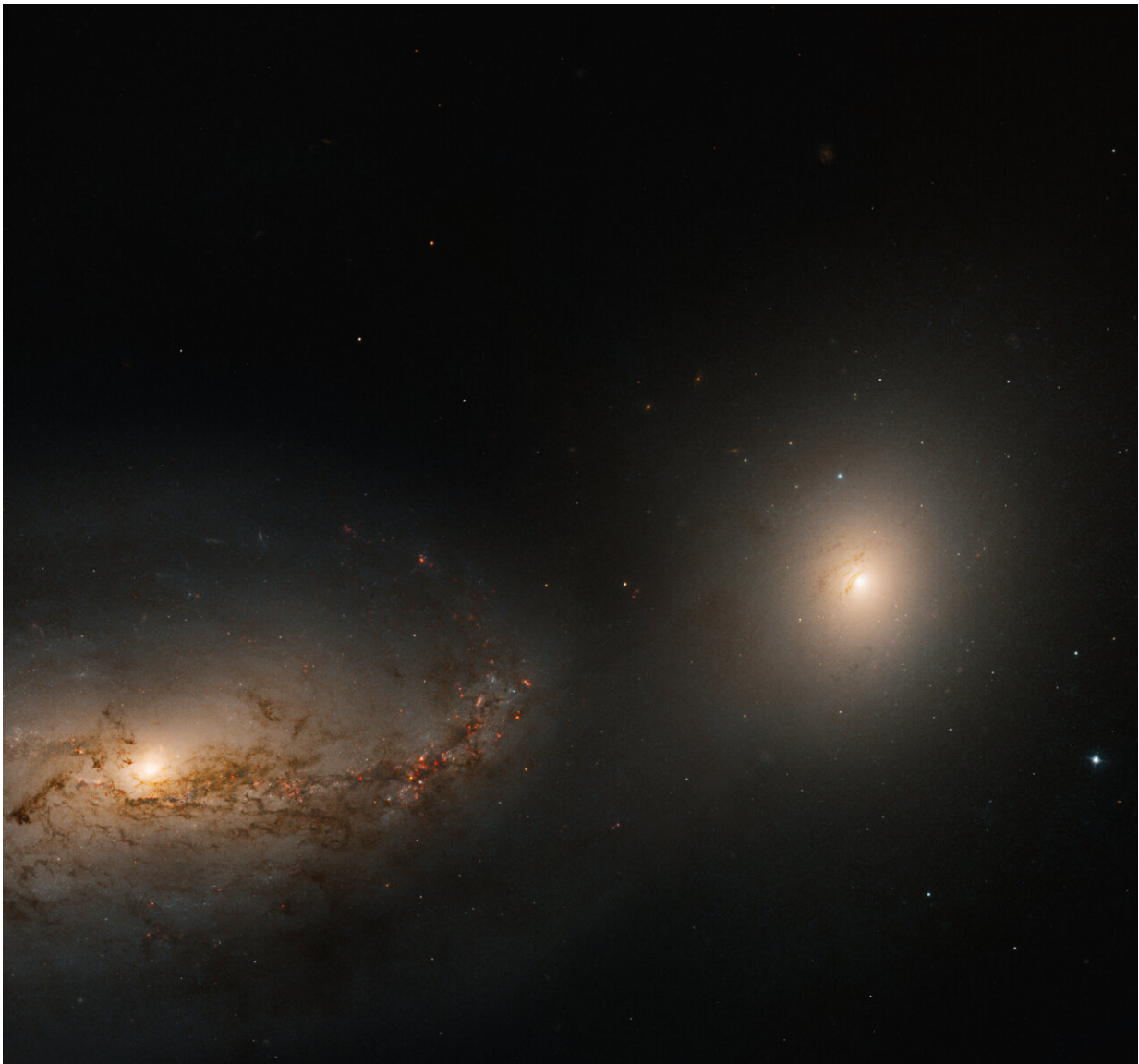


Hubble captures gravitationally bound galaxies NGC 3227 and NGC 3226

May 26 2022



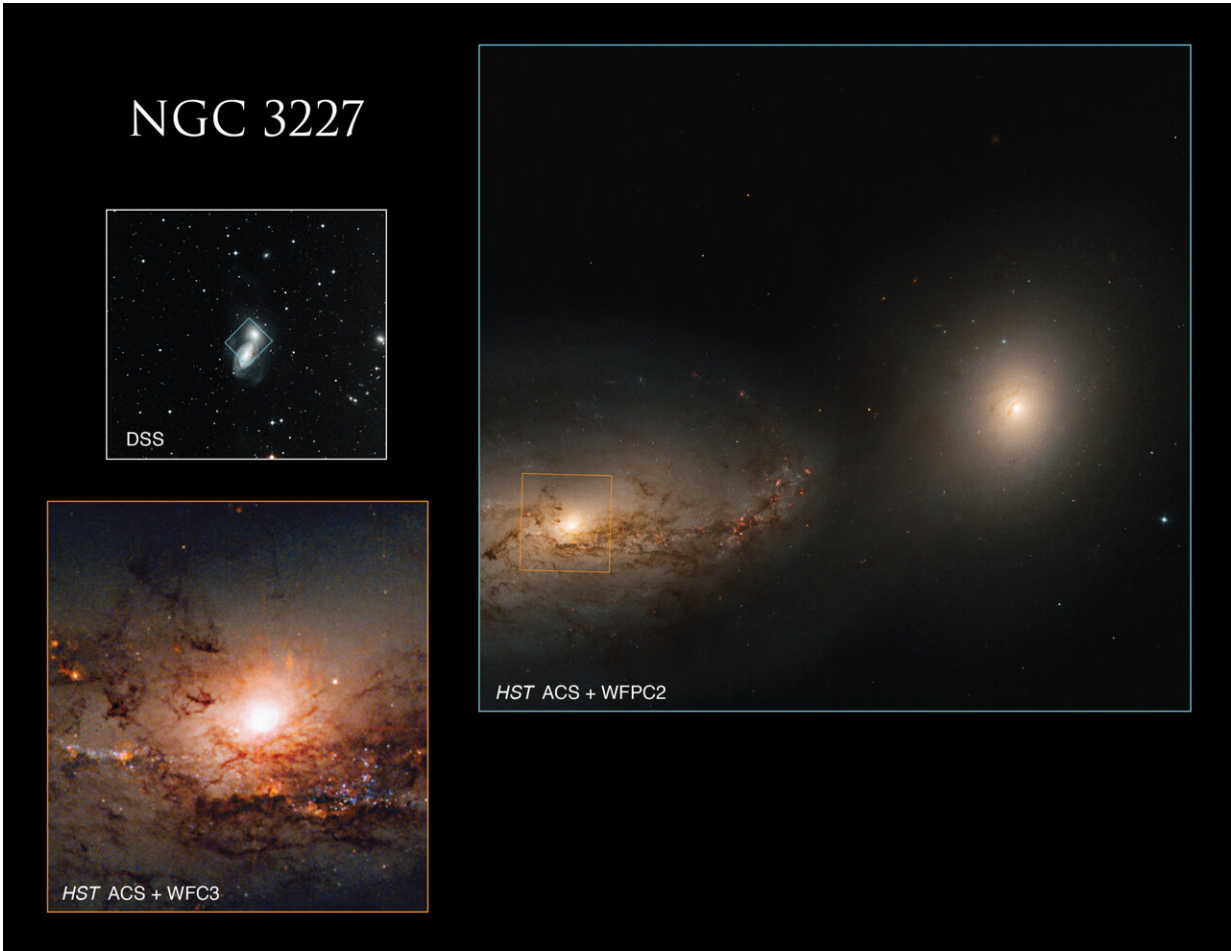
Credit: NASA, ESA, and H. Ford (Johns Hopkins University); Image Processing:

G. Kober (NASA Goddard/Catholic University of America)

This NASA Hubble Space Telescope image finds the large spiral galaxy, NGC 3227, wrapped in a turbulent gravitational dance with its companion, the elliptical galaxy NGC 3226. The twosome—collectively known as Arp 94—is relatively nearby, between 50 and 60 million light-years away toward the constellation Leo, the Lion. A close look at the area between the two galaxies reveals faint tidal streams of gas and dust that link the pair in their gravitational dance.

NGC 3227 is a Seyfert galaxy, a type of galaxy with a very active nucleus. Seyfert galaxies hold [supermassive black holes](#) at their cores. As matter spirals into the black hole, it releases vast amounts of radiation along the black hole's axis of rotation, giving the galaxy its active nucleus.

Hubble looked at NGC 3227 and 3226 as part of a program to measure black hole masses by observing the dynamics of gas at the centers of bright cluster [galaxies](#). The color red in this image represents both visible red and near infrared wavelengths of light.



The upper left, black and white image taken by the Digital Sky Survey outlines the portion of NGC 3227 and 3226 that Hubble imaged. The lower left Hubble image highlights the active core of NGC 3227 and showcases its dark dust lanes and bright star-forming regions. Credit: NASA, ESA, H. Ford (Johns Hopkins University), and DSS; Image Processing: G. Kober (NASA Goddard/Catholic University of America)

Provided by NASA's Goddard Space Flight Center

Citation: Hubble captures gravitationally bound galaxies NGC 3227 and NGC 3226 (2022, May 26) retrieved 7 May 2024 from <https://phys.org/news/2022-05-hubble-captures-gravitationally-bound-galaxies.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.