

Hubble looks at a face-on grand spiral

May 27 2022, by Claire Andreoli



Credit: NASA, ESA, A. Filippenko (University of California - Berkeley), and D. Sand (University of Arizona); Image Processing: G. Kober (NASA)

Goddard/Catholic University of America)

This image from NASA's Hubble Space Telescope features the Grand Design Spiral, NGC 3631, located some 53 million light-years away in the direction of the constellation Ursa Major. The "arms" of grand design spirals appear to wind around and into the galaxy's nucleus.

Close inspection of NGC 3631's grand spiral arms reveals dark dust lanes and bright star-forming regions along the inner part of the spiral arms. Star formation in spirals is similar to a traffic jam on the interstate. Like cars on the highway, slower moving matter in the spiral's disk creates a bottleneck, concentrating star-forming gas and dust along the inner part of their spiral arms. This traffic jam of [matter](#) can get so dense that it gravitationally collapses, creating new stars (here seen in bright blue-white).

The image uses data collected from Hubble's Wide Field Camera 3 and Advanced Camera for Surveys. The color blue represents visible wavelengths of blue light, and the color orange represents [infrared light](#).

Provided by NASA's Goddard Space Flight Center

Citation: Hubble looks at a face-on grand spiral (2022, May 27) retrieved 27 April 2024 from <https://phys.org/news/2022-05-hubble-face-on-grand-spiral.html>

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