



NGC 2775

Feathery dust lanes and pinpricks of bright-blue stars characterize NGC 2775. Also known as Caldwell 48, this object is a “flocculent spiral galaxy,” a type of galaxy with poorly defined and discontinuous spiral arms. Scientists theorize that these arms form from dense gas clouds shearing as the galaxy rotates. Within this galaxy, stars are self-propagating, meaning that the presence of young, hot, blue stars triggers star formation in adjacent gas clouds. Interestingly, there is no recent history of star formation in NGC 2775, rendering it a relatively “quiet” galaxy.

The most distinctive feature of NGC 2775 is its large, central galactic bulge that has little remaining gas and thus no ongoing star formation, leading to a relatively empty central region with a lower than normal density of (old) stars. The bulge once held dense gas that was actively forming stars, but scientists theorize that a high historical rate of supernovae may have pushed gas out of the central bulge, limiting star formation. NGC 2775 is located 67 million light-years away in the constellation Cancer. This image captures the whole length of the galaxy, which is roughly 70,000 light-years across.

Hubble Space Telescope – Wide Field Camera 3

NASA, ESA, J. Lee, and the PHANGS-HST Team, Acknowledgement: Judy Schmidt (Geckzilla)