

Image: Hubble observes jellyfish galaxy JO206

June 9 2023



Credit: ESA/Hubble & NASA, M. Gullieuszik and the GASP team

The jellyfish galaxy JO206 trails across this image from the NASA/ESA Hubble Space Telescope, showcasing a colorful star-forming disk surrounded by a pale, luminous cloud of dust. A handful of foreground bright stars with crisscross diffraction spikes stands out against an inky



black backdrop at the bottom of the image. JO206 lies over 700 million light-years from Earth in the constellation Aquarius.

Jellyfish galaxies are so-called because of their resemblance to their aquatic namesakes. In the bottom right of this image, long tendrils of bright star formation trail the disk of JO206, just as jellyfish trail tentacles behind them.

The tendrils of jellyfish galaxies are formed by the interaction between galaxies and the intra-cluster medium, a tenuous superheated plasma that pervades galaxy clusters. As galaxies move through galaxy clusters, they ram into the intracluster medium, which strips gas from the galaxies and draws it into the long tendrils of star formation.

The tentacles of jellyfish galaxies give astronomers a unique opportunity to study star formation under extreme conditions, far from the influence of the galaxy's main disk. Surprisingly, Hubble revealed that there are no striking differences between star formation in the disks of jellyfish galaxies and <u>star formation</u> in their tentacles, which suggests the environment of newly formed stars has only a minor influence on their formation.

Provided by NASA's Goddard Space Flight Center

Citation: Image: Hubble observes jellyfish galaxy JO206 (2023, June 9) retrieved 26 April 2024 from https://phys.org/news/2023-06-image-hubble-jellyfish-galaxy-jo206.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.