

Image: Hubble captures Arp 295

January 26 2024





This new NASA Hubble Space Telescope image features a member of the galaxy group Arp 295. Credit: NASA/ESA/J. Dalcanton (University of Washington)/R. Windhorst (Arizona State University)/Processing: Gladys Kober (NASA/Catholic University of America)

One of the galaxies from a galactic group known as Arp 295 is visible in this new NASA Hubble Space Telescope image, along with part of the faint 250,000-light-year-long bridge of stars and gas that stretches between two of the galaxies. The galaxies have passed close enough together that their mutual gravity created this cosmic streamer.

When galaxies pass close enough to gravitationally disrupt each other's shape, they are known as interacting galaxies. This type of interaction happens over billions of years and repeated close passages can result in the <u>merger</u> of the two galaxies. Galactic mergers are thought to be common, and even our own Milky Way is expected to merge with the massive, neighboring Andromeda galaxy in about 4 billion years.

Arp 295 is made up of three spiral galaxies designated Arp 295a, Arp 295b, and Arp 295c. Arp 295a is the edge-on galaxy seen in the center of the image, and Arp 295c is the smaller and bluer face-on spiral to its right. Arp 295b is off the top left of this image and not visible here. Together, they are the largest of a loose grouping of galaxies located about 270 million light-years in the direction of the constellation Aquarius.

Provided by NASA

Citation: Image: Hubble captures Arp 295 (2024, January 26) retrieved 28 April 2024 from



https://phys.org/news/2024-01-image-hubble-captures-arp.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.