

# Image: Hubble sees a stellar furnace

February 8 2021

---



Credit: ESA/Hubble & NASA, J. Lee; Acknowledgement: Leo Shatz

An orange glow radiates from the center of NGC 1792, the heart of this stellar furnace. Captured by the NASA/ESA Hubble Space Telescope, this intimate view of NGC 1792 gives us some insight into this galactic powerhouse. The vast swathes of tell-tale blue seen throughout the galaxy indicate areas that are full of young, hot stars, and it is in the

shades of orange, seen nearer the center, that the older, cooler stars reside.

Nestled in the constellation of Columba (The Dove), NGC 1792 is both a [spiral galaxy](#) and a [starburst galaxy](#). Within starburst galaxies, stars are forming at comparatively exorbitant rates. The rate of star formation can be more than 10 times faster in a starburst galaxy than in our galaxy, the Milky Way. When galaxies have a large reservoir of gas, like NGC 1792, these short-lived starburst phases can be sparked by galactic events such as mergers and tidal interactions.

One might think that these starburst galaxies would easily consume all of their gas in a large forming event. However, supernova explosions and intense stellar winds produced in these powerful starbursts can inject energy into the gas and disperse it. This halts the star formation before it can completely deplete the galaxy of all its fuel. Scientists are actively working to understand this complex interplay between the dynamics that drive and quench these fierce bursts of star formation.

Provided by NASA

Citation: Image: Hubble sees a stellar furnace (2021, February 8) retrieved 30 April 2024 from <https://phys.org/news/2021-02-image-hubble-stellar-furnace.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.