

## Image: Hubble stares into the cramped center of Messier 22

April 13 2015

---



Credit: ESA/Hubble and NASA

This image shows the center of the globular cluster Messier 22, also known as M22, as observed by the NASA/ESA Hubble Space Telescope. Globular clusters are spherical collections of densely packed stars, relics of the early years of the Universe, with ages of typically 12 to 13 billion years. This is very old considering that the Universe is only 13.8 billion years old.

Messier 22 is one of about 150 [globular clusters](#) in the Milky Way and at just 10,000 light-years away it is also one of the closest to Earth. It was discovered in 1665 by Abraham Ihle, making it one of the first globulars ever to be discovered. This is not so surprising as it is one of the brightest globular clusters visible from the [northern hemisphere](#), located in the constellation of Sagittarius, close to the Galactic Bulge—the dense mass of stars at the center of the Milky Way.

The cluster has a diameter of about 70 light-years and, when looking from Earth, appears to take up a patch of sky the size of the full Moon. Despite its relative proximity to us, the light from the stars in the cluster is not as bright as it should be as it is dimmed by dust and gas located between us and the cluster.

As they are leftovers from the early Universe, globular clusters are popular study objects for astronomers. M22 in particular has fascinating additional features: six planet-sized objects that are not orbiting a star have been detected in the cluster, it seems to host two [black holes](#), and the cluster is one of only three ever found to host a planetary nebula—a short-lived gaseous shells ejected by massive stars at the ends of their lives.

Provided by NASA

Citation: Image: Hubble stares into the crammed center of Messier 22 (2015, April 13) retrieved 2 May 2024 from <https://phys.org/news/2015-04-image-hubble-crammed-center-messier.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.