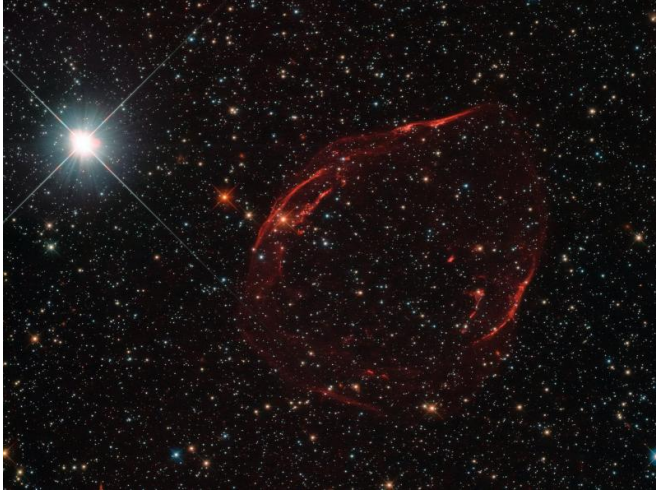


Image: Hubble Investigates Stellar Shrapnel

22 August 2016



formed when a white dwarf reached the end of its life and ripped itself apart, ejecting a superheated cloud of debris in the process. Slamming into the surrounding interstellar gas, this stellar shrapnel gradually diffused into the separate fiery filaments of material seen scattered across this skyscape.

Provided by NASA

Credit: ESA/Hubble & NASA, Y. Chu

Several thousand years ago, a star some 160,000 light-years away from us exploded, scattering stellar shrapnel across the sky. The aftermath of this energetic detonation is shown here in this striking image from the NASA/ESA Hubble Space Telescope's Wide Field Camera 3.

The exploding star was a white dwarf located in the Large Magellanic Cloud, one of our nearest neighboring galaxies. Around 97 percent of stars within the Milky Way that are between a tenth and eight times the mass of the sun are expected to end up as [white dwarfs](#). These stars can face a number of different fates, one of which is to explode as supernovae, some of the brightest events ever observed in the universe. If a white dwarf is part of a binary star system, it can siphon material from a close companion. After gobbling up more than it can handle—and swelling to approximately one and a half times the size of the sun—the star becomes unstable and ignites as a Type Ia supernova.

This was the case for the supernova remnant pictured here, which is known as DEM L71. It

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