

Bubble Nebula • NGC 7635



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Blowing Cosmic Bubbles

This NASA Hubble Space Telescope image reveals an expanding shell of glowing gas surrounding a hot, massive star in our Milky Way Galaxy. This shell is being shaped by strong stellar winds of material and radiation produced by the bright star at the left, which is 10 to 20 times more massive than our Sun. These fierce winds are sculpting the surrounding material - composed of gas and dust - into the curve-shaped bubble. Astronomers have dubbed it the Bubble Nebula (NGC 7635). The nebula is 10 light-years across, more than twice the distance from Earth to the nearest star. Only part of the bubble is visible in this image. The glowing gas in the lower right-hand corner is a dense region of material that is getting blasted by radiation from the Bubble Nebula's massive star. The radiation is eating into the gas, creating finger-like features. This interaction also heats up the gas, causing it to glow.

Scientists study the Bubble Nebula to understand how hot stars interact with the surrounding material.

Credit: Hubble Heritage Team (AURA/STScI/NASA)