

Galaxy merger moment gives glimpse into Milky Way's future

This image may also have animated a creepy picture of what could eventually happen to our galaxy -

At the center of almost every galaxy is a giant black hole. These "hungry monsters" are so large that there is a separate size classification standard for them. Supermassive black holes, with masses millions or even billions of times that of our sun. When two galaxies collide, the supermassive black holes at their centers will also get closer and eventually merge. Then, one of the most violent types of interactions in the universe will take place.

This almost incomprehensible process has just been captured in an image recently shared by the European Southern Observatory (ESO), Image content shows a galaxy in the process of merging containing a pair of holes Supermassive black holes, perhaps among the largest ever discovered, are only 1,600 light-years apart. This galaxy, called NGC 7727, is the result of a merger of two other galaxies that began about a billion years ago. According to scientists' estimates, within the next few hundred million years, these two supermassive black holes will collide, creating an even larger black hole, at a level that cannot be accurately visualized.



The image above was taken with the Very Large Telescope, a ground-based telescope system located in the Atacama Desert in Chile. The Very Large Telescope is made up of four individual telescopes called VLT UT1, each with a main mirror 8.2 meters wide. On one of these telescopes is an instrument called the FOcal Reduce and the Low Dispersion Spectrometer 2 (FORS2), which is capable of collecting spectral data from multiple targets simultaneously as well as measuring their resolution. polarity of light.

FORS2 captured the galaxy in the moment two black holes were approaching each other. The content of the image shows regions of stars, dust and gas around the edges of the galaxy stretched out into space, like 'tentacles' extending out from the main body of the galaxy.

This image may also have animated a macabre picture of what might eventually happen to our galaxy - the Milky Way - in the future, as it begins to merge with the Andromeda Galaxy. next to.

'Our galaxy, which also has a supermassive black hole at its centre, is on the way to merging with its nearest large neighbor - the Andromeda Galaxy. Perhaps the forming galaxy will look similar to the universe we see in NGC 7727, so this image could give us a glimpse into the future'.

However, this process will only take place in the next billions of years, so you can comfortably enjoy life now.

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