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The first glimpses of the supermassive black hole at the centre of our Milky Way galaxy Sagittarius A* - was released by a group of astronomers on Thursday.

The image that was released Event Horizon Telescope (EHT) Collaboration was the first direct visual confirming the presence of this invisible object, and comes three years after the very first image of a black hole from a distant galaxy.

As per the visuals, it does not appear to be a black hole itself, but the glowing gas that encircles the phenomenon -- which is four million times more massive than our Sun -- in a bright ring of bending light.

Have you seen the picture of the black hole at the center of our galaxy?

The image of Sagittarius A* (inset) was taken by @EHTelescope. Now see it in context with support from our @ChandraXray, Swift and NuSTAR observatories. Here's what the colors mean: https://t.co/Qkt3Qu3v1r pic.twitter.com/BONW7QZhsu

"These unprecedented observations have greatly improved our understanding of what happens at the very centre of our galaxy," said EHT project scientist Geoffrey Bower, of Taiwan's Academia Sinica.

Bower also said in a statement provided by the French National Centre for Scientific Research (CNRS) that the observations had offered "new insights on how these giant black holes interact with their surroundings".

Sagittarius A* -- abbreviated to Sgr A*, which is pronounced "sadge-ay-star" -- owes its name to its detection in the direction of the constellation Sagittarius.

Its existence has been assumed since 1974, with the detection of an unusual radio source at the centre of the galaxy.

In the 1990s, astronomers mapped the orbits of the brightest stars near the centre of the Milky Way, confirming the presence of a supermassive compact object there -- work that led to the 2020 Nobel Prize in Physics.

Though the presence of a black hole was thought to be the only plausible explanation, the new image provides the first direct visual proof. Because it is 27,000 light years from Earth, it appears the same size in the sky as a donut on the Moon.

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