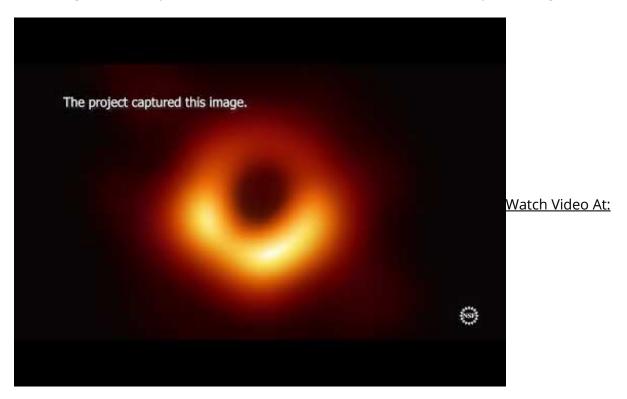


First Images of A Black Hole

drishtiias.com/printpdf/first-images-of-a-black-hole

The scientists at **Event Horizon Telescope Project** have released the first-ever image of a **Black Hole** (more precisely, of its shadow).

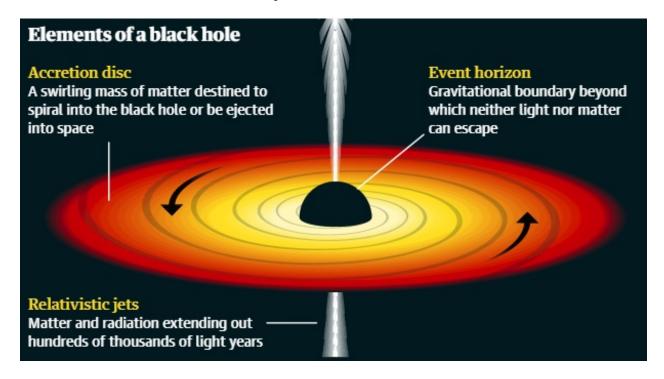
- The black hole is located in the center of **galaxy Messier 87**, in the **constellation Virgo.** It is located about **53 million light -years away from earth.**
- The black hole has a mass of **6.5 billion Suns.**
- The image was made possible by the **Event horizon telescope (EHT).**
- The EHT picks up the radiation emitted by particles in the galaxy heated to billion degrees as they revolve around the black hole close to the speed of light.



https://youtu.be/xsnjYC64RqA

What is a black hole?

- The term 'black hole' was coined in the mid-1960s by **American Physicist John Archibald Wheeler.**
- Black hole refers to a point in space where matter is so compressed as to **create a gravity field from which even light cannot escape.**
- Black-holes were theorized by Albert Einstein in 1915.



Event Horizon

There is a **region of space beyond the black hole called the event horizon**. This is a **"point of no return"**, beyond which it is **impossible to escape the gravitational effects of the black hole**.

Event Horizon Telescope Project

EHT is a group of **8 radio telescopes (used to detect radio waves from space)** located in different parts of the world.