SPACE SCOOP
Bringing news from across the Universe to kids all around the world
UNIVERSE AWARENESS

Forces Unleashed

Astronomers have observed an extremely powerful and bright object in greater detail than ever before.

One year ago, the world marvelled at the first ever image of a black hole.

To get this image, many telescopes positioned all around the globe observed the black hole so scientists could have lots of eyes on their target. This collective was called the Event Horizon Telescope because its intention was to capture an image of the horizon of the black hole. We cannot see anything that lies beyond this horizon. A large number of telescopes were needed to observe the massive size of a supermassive black hole's event horizon.

Now, the Event Horizon Telescope has achieved something new.

Astronomers set their sight on quasar 3C279, which is located 5 billion light years away. Quasars (pronounced 'kway-zars') are the very bright centres of distant galaxies. They consist of a supermassive black hole that is surrounded by a disk of gas. Material falling onto the black hole created an extremely bright flare of energy.

The team has now captured an image of this flare of energy in the finest detail ever recorded. You can see images of this quasar here.

The two flares of energy erupting from this black hole, known as jets, are travelling close to the speed of light. This is due to the enormous forces unleashed as matter is falling into the black hole's extreme gravity. The black hole of this quasar is about one billion times more massive than our Sun!

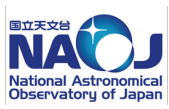
Because of the unprecedented sharpness of the new observations, astronomers can study the shape and properties of these jets in more detail than ever.

The world of astronomy eagerly anticipates what other observations await the Event Horizon Telescope!

Image Credit: ESO/M. Kornmesser

COOL FACT

Quasars are brighter than anything else in the Universe! They are even brighter than the light coming from all stars in multiple galaxies combined. Still, they are located so far away from us, you still need a telescope to be able to see them!

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