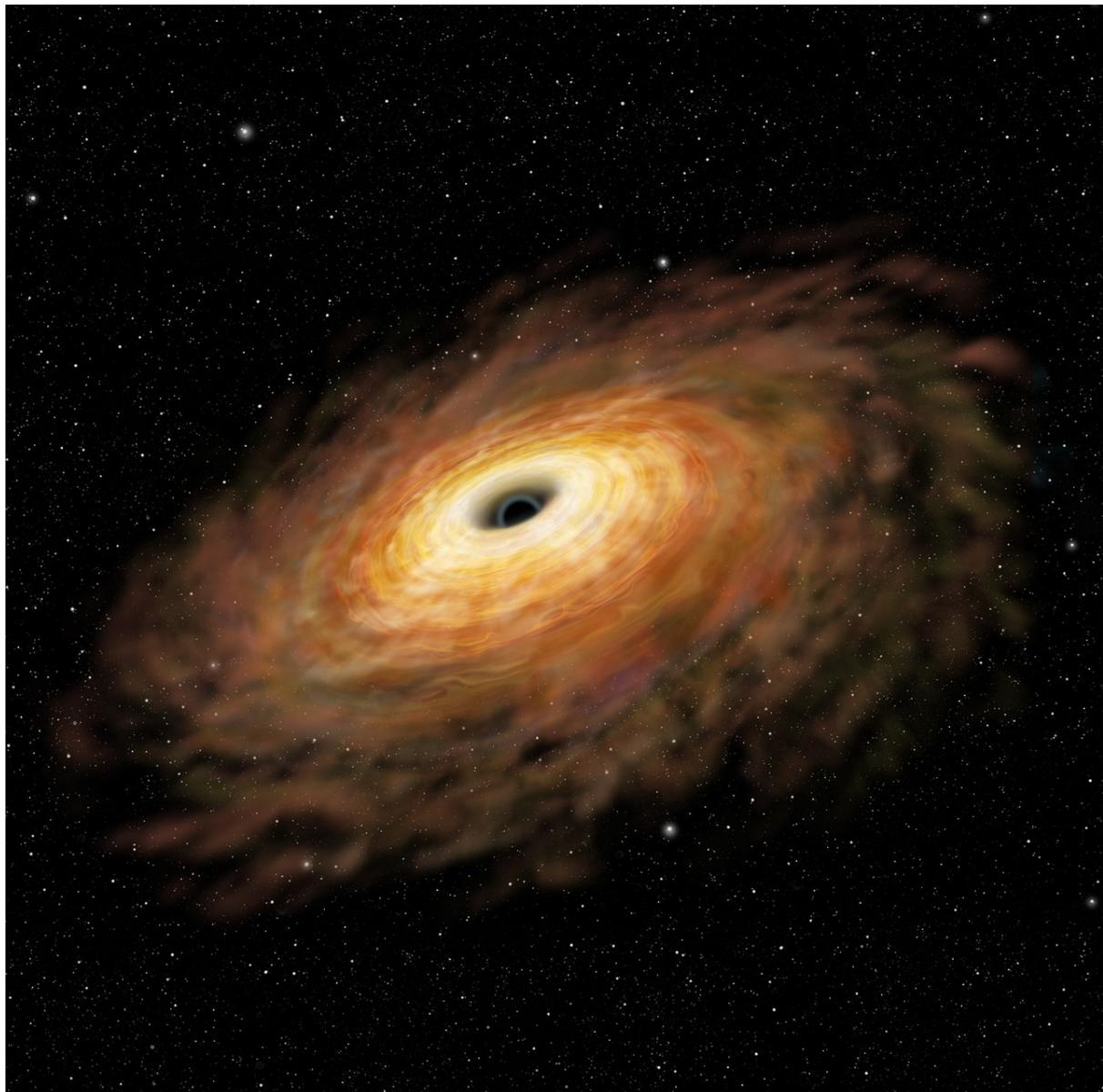




How to Feed Your Galactic Monster

Jan. 31, 2014



Beyond the vast stretch of empty black space making up our night sky, lie objects that are more exotic, more gigantic and more powerful than you anything we could imagine on Earth — merging galaxies.

Despite the huge distances between objects in space, it's fairly common for two galaxies to collide and merge together. They pull and twist each other as they slowly drift closer, totally changing the shape of both galaxies. The merging process can also trigger the frantic birth of thousands of massive stars and most exciting of all, it can begin a feeding frenzy for the monsters at the heart of the galaxies – [supermassive black holes](#)!

Black holes have such strong gravity that even light cannot escape their clutches. Black holes at the centre of galaxies are much bigger than ones out in the rest of space, so we call them “supermassive black holes”.

When they “feed on” (draw in) nearby gas and dust, they evolve into the brightest, and most powerful objects in the Universe. But, is this what fuels the engine of supermassive black holes? A team of Japanese astronomers has been attempting to find out.

Looking at a sample of 29 merging galaxies, the astronomers revealed that each one hosted at least one black hole that was actively gobbling up nearby material.

The team's results show that some of the supermassive black holes in merging galaxies are asleep. This tells us that there is something special, and so far mysterious, about the conditions around each supermassive black hole that start it feeding.

COOL FACT

Supermassive black holes are between 1 million times and several billion times more massive than the Sun. A “normal” black hole is much smaller, between 3 and 100 more massive than the Sun.

This Space Scoop is based on a Press Release from [NAOJ](#).

[NAOJ](#)



This website was produced by funding from the European Community's Horizon 2020 Programme under grant agreement n° 638653