



## Death by Spaghettification

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Spaghetti in space? Not quite!

### The Noodle Effect

Black holes are some of the most powerful objects in the Universe. When an unlucky star wanders too close to a supermassive black hole in the centre of a galaxy, it gets ripped apart by a black hole. As it is being ripped apart, it becomes extremely stretched out and resembles spaghetti!

Astronomers call this 'Spaghettification' or 'the Noodle Effect'.

### Caught in the Act

Astronomers have now observed this violent act in new detail, as a star (formally known as AT2019qiz) roughly 215 million light-years from Earth was sucked in by a black hole.

In order to study this dramatic event, they used telescopes from the European Southern Observatory (ESO) and other organisations around the world to observe what happened after the star was ripped apart by the black hole: a blast of light.

This is the closest blast of this kind that astronomers have found to date.

### Tidal Effect

This blast of light happens because huge amounts of energy are released as the black hole eats up the star and spits out the star's debris. This is known to astronomers as a tidal disruption

event. The scientists watched the star's bright blast of light grow strong and then fade away over a period of 6 months.

Image credit: ESO/M. Kornmesser

 **COOL FACT!**

Astronomers were able to capture a blast of dust and debris from this demolished star. This material was being spit out by at speeds of up to 10 000 km/s - that's about 100 times as fast as a bolt of Lightning!