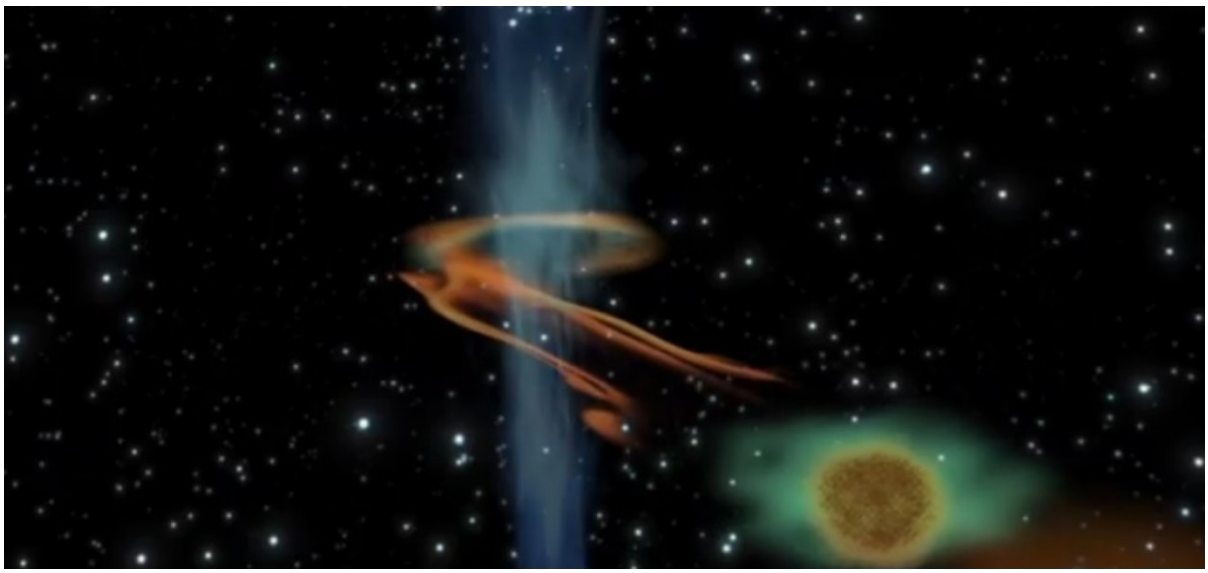
Rise and Shine, it's Breakfast Time!

April 2, 2013



A few weeks ago, astronomers watched in amazement as a black hole woke up from a decades-long slumber and began tucking into a hearty breakfast. Not a croissant or a bowl of cereal, but a super-Jupiter! A super-Jupiter is an object that is much larger than Jupiter (the largest planet in our Solar System), but not big enough to be a star. In this case, about 30 times larger. To put this into perspective, the Earth would fit inside Jupiter over 1300 times!

Picture the scene: a group of astronomers from the European Space Agency were settled in for a night of observing, when a mysterious bright X-ray flare suddenly blazed its way onto their screens. Curious to find out where this mysterious light was coming from, the astronomers traced it back to its source. It was coming from the centre of a known galaxy called NGC 4845. This galaxy has been observed many times, but on this night, it was shining over 1000 times brighter than normal!

The light came from heated material around the galaxy's central black hole, as it tore apart and fed on the unfortunate object. The black hole in the centre of NGC 4845 is estimated to have a mass of around 300 000 times that of our own Sun. It also likes to play with its food: for over 2–3 months, it toyed with the object before munching down about a tenth of its material!

You can watch a computer simulation of the event here.

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Cool Fact

There is a special boundary around a black hole called an event horizon. It is at this point that everything, even light, must go toward the black hole. There is no escape once you've crossed the event horizon!

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