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This black hole is 12 billion times bigger than Sun

Kounteya.Sinha
@timesgroup.com

London: Astronomers have found the largest black hole till date – as big as 12 billion times bigger and 420 trillion times more luminous than Sun.

An international team of astronomers have found a huge and ancient black hole which was powering the brightest object early in the universe. The black hole's mass is 12.8 billion light years away — the most luminous object ever seen in such ancient space. It's also from just 900 million years after the big bang. The hole was found at the centre of a quasar that pumped out a million billion times the energy of our Sun.

Team member Dr Fuyan Bian from the Research School of Astronomy and Astrophysics at the Australian National University (ANU) said the discovery challenges theories of how black holes form and grow.

In a new study published in on Wednesday, researchers described "a cosmic light that defies convention. It was even detectable with a relatively small telescope, though researchers in China did have to ask for help from astronomers in Chile and the US to get a higher-resolution look.

"Forming such a large black hole so quickly is hard to interpret," the team said.

A quasar is an extremely bright cloud of material in the process of being sucked into a black hole. As the material accelerates towards the black hole it heats up, emitting an extraordinary amount of light which actually pushes away material falling behind it.

This process is thought to limit the growth rate of black holes, Dr Bian said. "However this black hole at gained enormous mass in a short period of time," Dr Bian said.

Water leaks into helmet, but ISS spacewalker safe

A spacewalking astronaut ended up with unwanted water in his helmet on Wednesday after breezing through a cable and lube job outside the International Space Station. The leak was scarily reminiscent of a near-drowning outside the orbiting complex nearly two years ago. This time, the amount of water was relatively small — essentially a big blob of water floating inside Terry Virts' helmet. In the summer of 2013, another spacewalking astronaut's helmet actually flooded. He barely made it back inside. AP