



Einstein was right: astronomers confirm key theory of relativity

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Highlights

- A consortium of astronomers said on Thursday they had for the first time confirmed a prediction of Albert Einstein's theory of general relativity by observing the gravitational effects of a supermassive black hole on a star zipping by it.
- Researchers from the GRAVITY consortium led by the Max Planck Institute for Extraterrestrial Physics realised that they had a "perfect laboratory" to test Einstein's theory with the black hole, Sagittarius A*, in the centre of the Milky Way.
- "The results are perfectly in line with the theory of general relativity" and are "a major breakthrough towards better understanding the effects of intense gravitational fields," said the research team

Practical utility

- Astronomers already use another effect predicted by Einstein's theory of general relativity — that a black hole can bend passing light. Called gravitational lensing, researchers have used it to peer behind black holes.
- Astronomers hope they can make practical use of the latest confirmation of Einstein's theory to track shifts in S2's trajectory due to gravity, which could yield information on mass distribution around the black hole.

Source: The Hindu

