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SIDE VIEW

Scientists spot big space bubbles

They stretch across more than half of the sky and are as large as the Milky Way -- but nobody knows how they got there. National Aeronautics and Space Administration (NASA) scientists are left scratching their heads after discovering two huge bubbles of gamma rays on either side of our galaxy.

The huge bubbles were found by NASA's Fermi gamma-ray telescope, which scans the sky every three hours for high energy light. The bubbles extend from the constellation Virgo to the constellation Grus and are among the largest such structures ever found -- it would take a beam of light, travelling at 186,282 miles per second, 50,000 years to get from the edge of one to the edge of the other, reports the "Daily Mail."

The discovery has reminded experts that however much we know about the galaxy, it is always full of surprises, according to a NASA statement. But they have also tried their best to explain how they got here -- one theory is that they have been fuelled by a wave of star births and deaths at the centre of the Milky Way. Other scientists and researchers have suggested it might be connected with the huge black hole which sits at the centre of the galaxy.

"This result is very exciting," said Fermi scientist Simona Murgia, with the SLAC National Accelerator Lab in California. "These features could reveal unexpected and very important physical processes in our galaxy that until now we knew nothing about."

David Spergel, astrophysicist at Princeton University who was not involved in the work, added, "Wow. And we think we know a lot about our own galaxy." The bubbles contain the energy equivalent to 100,000 supernova explosions, leading to NASA scientists ruling out dark matter, which makes up as much as a quarter of the universe.

One theory that is being explored is that the supermassive black hole at the centre of the Milky Way may have had some kind of outburst. "You have to ask where could energy like that come from," said astronomer Doug Finkbeiner from the Harvard-Smithsonian Centre for Astrophysics, US. *IANS*