

IITGn is a partner in gravitational waves discovery

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While the scientific community world over celebrates the observation of gravitational waves, Gujarat too has its own reasons to rejoice. A research group at IIT Gandhinagar led by Dr Anand Sengupta is part of the consortium of scientists from nine research institutes and universities across India, who have contributed to this landmark discovery.

IITGn scientists are co-authors of the discovery paper along with 35 scientists from other institutions participating in LSC under the aegis of Indian Initiative in Gravitational-Wave Observations (IndIGO).

While the cataclysmic event in the distant universe confirmed a major prediction of Albert Einstein's 1915 theory of relativity and opens a new window into the cosmos, Sengupta, leader of the



Prof Sengupta

gravitational wave group at IIT-Gn, explained how these faint waves are challenging to detect. Special data processing techniques are needed to detect them in the noisy detector data channels. IITGn research group has made important contribution in developing some of them and deploying them on supercom-

puters, a press release issued by the institute said.

"Almost everything we know about the Universe, has been through detection of light at different wavelengths," said Sengupta. "As gravitational waves carry different kind of information than light, this discovery has thrown open a fundamentally new way of observing the Universe," he added.

IndIGO, formed in 2009 by a group of Indian researchers with expertise in theoretical and experimental gravity, cosmology and optical metrology, sought to promote gravitational wave research in order to realise an advanced detector in the country.