

Seminar on “Au-some Cosmic explosion & its implication for 21st century Astronomy”


Date: 19-02-2018


Participants: 198

Prof. A. Gopakumar, TIFR, Mumbai










Physics Club
of
Sir P T Sarvajanik College of Science



Cordially invites you
to
The Public Lecture

**Au-some Cosmic Explosion and
Its Implication for 21st Century
Astronomy**

Abstract

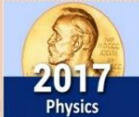
On 16 October 2017, LIGO Virgo Scientific Collaboration announced their first detection of gravitational waves from a merging neutron star binary. This event GW170817, discovered on 18 August 2017, was localized to an incredible 28 square degree on the sky and was essentially coincident with short gamma ray burst, GRB170817A, observed by Fermi & INTEGRAL. The unprecedented localization of our GW event and its associated GRB detection triggered a world-wide electro-magnetic follow up observations, involving around 70 ground and space based observatories. This event marks the beginning of multi-messenger GW Astronomy while giving glimpses of its true potential. These observations are allowing us to probe many different aspects of astrophysics including the association of short hard gamma ray burst with merging neutron stars, EOS of neutron stars, testing general relativity, estimating the Hubble constant using gravitational waves and processes that created heavy elements like Gold and Platinum in the Universe. The talk will focus on some of the impressive implications of GW170817/GRB170817A after a brief introduction to gravitational waves.

:Speaker:
Prof. A. Gopakumar
TIFR, Mumbai

:Date:
19th February, 2018
Monday

:Time:
11:30 am

:Venue:
Taramoti Hall
Sir P T
Sarvajanik
College
of Science,
Surat



Brief Report:

16th October, 2017 is a historic day in the field of Physics since LIGO announced the discovery of long-awaited gravitational waves and the Nobel Prize in Physics for the year 2017 was awarded for this event. As a part of the Nobel Lecture Series, Prof. A. Gopakumar was invited to deliver a talk on the Nobel Prize 2017. He has actually worked with LIGO and so was appropriately the right person to be invited to give a talk on the gravitational waves. He presented the discovery of the gravitational waves in his characteristic manner which was well-received by the students and the question-answer session at the end of the talk lasted for more than half an hour.