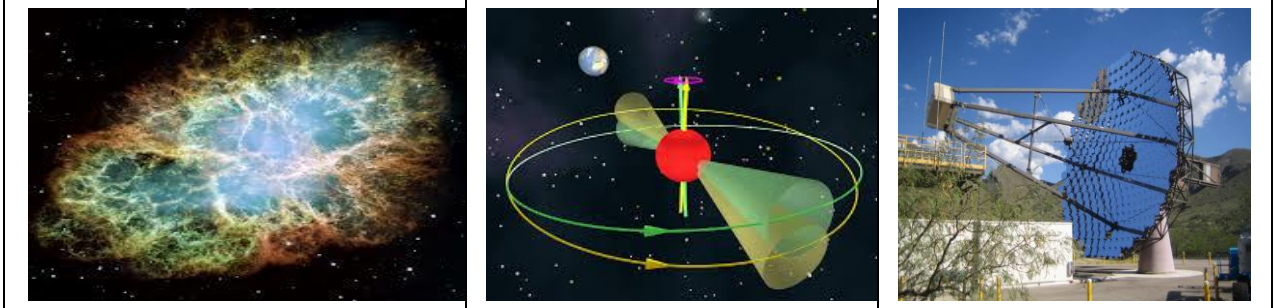


INSTITUTE OF PHYSICS, SRI LANKA
&
SLAAS - SECTION E1
Jointly with
ASTRONOMY AND SPACE SCIENCE UNIT,
UNIVERSITY OF COLOMBO



GUEST LECTURE ON

"Messages that astrophysical gamma rays bring to us"



By

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Summary: The Sun is the most energetic object that we see in the day to day life. However, the universe beyond our solar system is way more violent than the Sun. These violent objects, such as active galactic nuclei, supernova remnants, and pulsar wind nebula, are able to accelerate charged particles to extremely high energies. As a consequence of particle acceleration, these objects produce very-high-energy gamma rays. These gamma rays are our probes to study these sources. For example, the spectral energy distribution of gamma rays reveal the distribution of high energy particles in these objects, and variability time scales reveal the extent of these sources. In this talk, speaker will present more details on how do we derive the physical properties of these objects using observable parameters, our current understanding of these violent objects, and how to use the gamma rays to test exotic hypotheses such as Lorentz invariance. During last three years, three undergraduate students and one graduate student from University of Colombo (UOC) collaborated with the University of Utah gamma ray group on studying the physical properties of Active Galactic Nuclei, and Pulsar Wind Nebula. The speaker will also present how the work done by the UOC students relate to the cutting edge research

Date & Time: Monday 29th May 2017 at 4.15 p.m.

**Venue: PLR-III(2nd Floor), Department of Physics,
University of Colombo, Colombo-03.**

All are Welcome !