

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Homi Bhabha Road, Mumbai-400 005

March 17, 2019

ASET Colloquium

- Speaker** : **Dr. Sreekumar P. (*Director, Space Science Program Office, ISRO HQ*)**
- Title** : **ISRO's Space Science Program – emerging opportunities**
- Date & Time** : **Friday 22 March 2019 at 16:00 hrs.**
- Venue** : **Lecture Theater (AG-66)**

Abstract :

ISRO has always considered the pursuit of space science research, as an important part of its core program since its early days. With the advent of mature, major science missions like Chandrayaan-1, ASTROSAT and Mars Orbiter Mission, we have entered a phase of increasing opportunities to conduct science from an Indian space platform. While the traditional space astronomy studies have been stimulated by the recent detection of gravitational waves and neutrinos from astrophysical sources, planetary science is slowly expanding into an exploration program with a wider societal interest, including linkages to the study of extra-solar systems. India has an excellent opportunity to play an important role in many emerging areas of research and link them more comprehensively to ongoing / planned ground-based mega science projects, if we expand our resources and thoughts into a more collaborative and cohesive program. I will discuss some of the new programs under consideration and the challenges facing us today.

About the Speaker:

P. Sreekumar did his MSc(Physics) from IIT-B prior to pursuing his Ph.D at the University of New Hampshire, USA. His Ph.D work involved the development of a large Compton gamma-ray telescope to study atmospheric gamma-rays, a prototype of the large COMPTEL telescope on the upcoming CGRO mission.

He spent a decade at NASA's Goddard Space Flight Center as a core member of the EGRET experiment on the large gamma ray Observatory, CGRO. During this time, his research focused on diffuse gamma-ray emission from the galaxy (measurement and modeling) and in extracting the highest quality spectrum of the extragalactic gamma-ray background and its distribution on the sky.

In 1999, he returned to India and joined ISRO Satellite Center to head the Space Astronomy Group. He participated in the ASTROSAT program, coordinated the Solar X-ray payload on GSAT-2 and later got deeply involved in India's first lunar mission, Chandrayaan-1 as PI and Co-PI of multiple payloads. He was instrumental in establishing the Space Science Instrumentation Facility at the ISRO Satellite Center, designed to enable external institutions to realise science payload development for ISRO's space science missions. From mid-2013 to mid-2018, he also served as the Director of the Indian Institute of Astrophysics, on deputation from ISRO. He initiated his current interest in the design and development of x-ray optics for polarimetric studies, during his term at IIA.



Dr. Satyanarayana Bheesette
(Coordinator, ASET Forum)