



Physical Research Laboratory, Ahmedabad

Colloquium 17-04

- Speaker:** Dr. Lokesh Kumar Dewangan
Scientist-SD, Astronomy and Astrophysics Division, PRL, Ahmedabad.
- Title:** “Observationally probing the physical processes in massive star-forming regions”
- Time:** Wednesday, 01 February 2017, 16.00 hrs.
- Venue:** K. R. Ramanathan Auditorium, PRL

Abstract

Massive stars ($> 8 M_{\text{sun}}$) have a significant impact, through their energetics, on the evolution of galaxies and the universe in general. The energetics of massive stars can also affect star formation positively and negatively. However, despite their importance, the understanding of the birth and feedback processes involving massive stars is still under debate. In recent years, space-based infrared observations have revealed many massive star-forming regions which contain infrared dark clouds, mid-infrared shells or bubbles, 6.7 GHz methanol maser emission, HII regions, and young star clusters together. It is indeed obvious that such sites host numerous complex physical processes of star formation. At the same time, these sites are extremely promising to probe important observational evidences concerning the formation of massive stars and their feedback. I will present the results of an analysis of promising massive star-forming regions using a multi-scale and multi-wavelength approach.

The Speaker

Dr. Lokesh Kumar Dewangan completed his MSc (2004) from Pt. R. S. S. Univ., Raipur, India in Physics and obtained Ph. D. (2011) in Physics from Physical Research Laboratory, Ahmedabad. He then worked as a postdoctoral fellow, National Institute of Astrophysics, Optics and Electronics (INAOE) At Mexico; Centro de Astrofisica da Universidade do Porto, Portugal; Tata Institute of Fundamental Research, Mumbai and Physical Research Laboratory, Ahmedabad, India. He worked as Research Fellow and Project Associate at Physical Research Laboratory. His research interests are focused in the field of massive star formation particularly to understand the formation of massive stars and to study the feedback of massive stars on their surrounding molecular environment.

Tea at 15:30 hrs.

ALL ARE WELCOME

