Physical Research Laboratory, Ahmedabad

Colloquium 17-15

Speaker: **Dr. Rohan Eugene Louis**
Post-Doctoral Researcher, Physics of the Sun, Optical Solar Physics
Cosmic Magnetic Fields, Leibniz-Institute for Astrophysics Potsdam (AIP)

Title: **"Investigating magnetic flux emergence through multi-wavelength observations"**

Time: **Wednesday, 17 May 2017, 16.00 hrs.**

Venue: **K. R. Ramanathan Auditorium, PRL**

Abstract

The solar magnetic field couples the dynamic processes in the convection zone to the atmosphere of the Sun. The emergence of magnetic flux at the solar photosphere is a key phase in the evolution of the magnetic field and is responsible for driving various phenomena related to solar activity, such as jets, surges, flares, etc. This talk will cover basic aspects of flux emergence, and the various observing facilities available on the ground and in space, which provide a comprehensive coverage of the solar atmosphere. He will also present recent observations pertaining to the diverse range of spatial and temporal scales associated with flux emergence. These challenge our understanding of how the magnetic field is organised in the solar interior and the processes responsible for transient events.

The Speaker

Dr. Rohan did his schooling at St. Xavier's Collegiate School and St. Joseph's College, Kolkata. He went to St. Joseph's College, Trichy (Tamil Nadu) for his Bachelor's degree in Physics and then onto Loyola College, Chennai for his M.Sc. In 2004 he qualified the National Eligibility Test for Research Fellowship and Lectureship. He joined PRL in 2005 as a Junior Research Fellow and began working at the Udaipur Solar Observatory under the guidance of Prof. Venkatakrishnan. During his time at USO, he was involved in the development of a prototype Adaptive Optics System and the analysis of high resolution spectro-polarimetric observations from the Japanese satellite, Hinode. The title of his PhD thesis was "The study of small-scale processes on the Sun using high resolution techniques" and he obtained his doctoral degree in 2011 at the Mohanlal Sukhadia University. After working as a Postdoc for a year and a half at USO, he moved to the Leibniz-Institute for Astrophysics Potsdam (AIP), Germany in March 2012 and has been there since. At the AIP, he was responsible for the operations of the GREGOR Fabry-Perot Interferometer (GFPI) at the 1.5 m GREGOR solar telescope, located at Observatorio del Teide, Spain. In 2015 he started working for SOLARNET, a European Commission's FP7 Capacities Programme which required testing and validating the data pipeline for the GFPI. Later that year, he organized the 12th Potsdam Thinkshop, titled "The Dynamic Sun – Exploring the many facets of Solar Eruptive Events" and later served as the guest editor of Astronomische Nachrichten (Astronomical Notes) compiling the contributions into a conference proceeding. He has 24 refereed publications to his credit, and is the first author of 15 articles.

Tea at 15:30 hrs.

ALL ARE WELCOME