



Physical Research Laboratory, Ahmedabad

Public Lecture

Speaker: Prof. Arnab Rai Choudhuri
Indian Institute of Science, Bangalore

Title: “The Mysterious Magnetic Personality of Our Sun”

Time: Thursday, 05 January 2017, 18.00 hrs.

Venue: K. R. Ramanathan Auditorium, PRL

Abstract

The Sun is the first astronomical object in which magnetic field were discovered in 1908 by using Zeeman effect. Even before this discovery of magnetic fields in supports, it was known that there is a 11- year cycle of sunspots, which could be identified as the magnetic cycle of the Sun after this discovery. The magnetic field of the Sun is also behind many other phenomena, such as the violent explosions known as solar flares, the corona much hotter than the solar surface and the solar wind. Only within the last few decades, major developments in plasma physics and magnetohydrodynamics (MHD) have at last provided a broad framework for the theoretical understanding of these phenomena connected with the solar magnetic fields. I shall give a general introduction to this field- with some emphasis on the research interests of our group, A more detailed account of this field can be found in my recently published popular science book:

<http://www.amazon.in/Natures-Third-Cycle-Story-Sunspots/dp/0199674752/>

The Speaker

Prof. Arnab Rai Choudhuri is a Professor of Physics at the Indian Institute of Science. He received his Ph. D. in 1985 from the University of Chicago under the supervision of Eugene Parker. Choudhuri has carried on theoretical research on the formation of sunspots and the 11- year sunspot cycle. He was of the originators of the flux transport dynamo model, the currently favoured theoretical model of the 11- year sunspot cycle. He is the author of two advanced textbooks, *The Physics of Fluids and Plasmas* (CUP, 1998) and *Astrophysics* (CUP, 2010), used in many universities around the world. Choudhuri is an elected Fellow of all the three science academies of India as well as TWAS. He was a recipient of the Alexander von Humboldt Fellowship and is currently a JC Bose Fellow.

High Tea at 17.30 hrs.

ALL ARE WELCOME

