



Physical Research Laboratory, Ahmedabad

Colloquium 20_14

- Speaker:** Prof. Dipankar Banerjee
Director, Aryabhata Research Institute of Observational Sciences (ARIES),
Nainital, Uttarakhand.
- Title:** “Long term study of the Sun using the Kodaikanal Digitised archive.”
- Date and Time:** Wednesday, 16 December 2020, 16:00 – 17:00 hrs
- YouTube Link:** <https://www.youtube.com/watch?v=YXjmnBXO2O8>

Abstract

Solar observations at the Kodaikanal observatory over the last 100+ years provide one of the longest continuous series of solar data. Apart from that, simultaneous observations in different wavelengths make this data a unique one and suitable for multi-wavelength studies. The Kodaikanal observatory has been obtaining solar images since 1904 in broadband white light, narrow band Ca II K 393.37 nm, and H-alpha 656.3 nm wavelengths. Many of these observations are still continuing. The historical data which were on photographic plates has been digitized. The study of the long-term variation of the sun is very important to understand the future of the solar activity. The solar variation affects our climate and near-earth environment. This database is also useful for theoretical modelling of the periodic generation and variation of the large-scale solar magnetic field. The preservation and distribution of such data sources through the datacenter hosted at IIA, Bangalore to the global scientific community have initiated a new platform for innovative and best practices for the dissemination of these historical and heritage resources. This presentation will demonstrate how this data archive is producing new science results. A comparison with other similar and major global archives will also be presented.

The Speaker

Prof. Dipankar Banerjee is an astrophysicist with a bachelor’s degree in physics (St. Xavier’s college) and a master’s degree in Theoretical Physics from the University of Kolkata. He has obtained his Ph.D. from the Indian Institute of Astrophysics and completed two postdoctoral tenures in reputed institutions in Europe. Prof. Banerjee’s area of interest is the Sun and the solar atmosphere. His work involves theoretical and numerical modeling using data from ground and space-based instruments. His work has enriched our understanding of the Sun and its impact on Space Weather. He is the co-chair of the Science working group of the “Aditya” mission. He is also the project coordinator for the National Large-Solar Telescope Project (NLST). NLST is a proposed 2-meter ground-based telescope planned to be installed at a Himalayan site. He is also involved with NASA’s PUNCH mission. Prof. Banerjee has more than 120 peer-reviewed publications to his credit, with around 3000 Citations in international journals. He is currently supervising 6 Ph.D. students, while 11 of his students have completed their PhDs. He is an honorary fellow of the Indian Academy of Sciences. Apart from his scientific career, Prof. Banerjee has an interest in various other activities. He is trained in Hindustani vocal and part of a Bengali theatre group, Smarannik, and regularly performs in plays, participating in national and international theatre festivals.

ALL ARE WELCOME

