

## **Prof. P.K. Manoharan**

P.K. Manoharan (known as 'Mano') is a research physicist employed at the Radio Astronomy Center, Tata Institute of Fundamental Research (TIFR). He effectively utilized the capabilities of the large Ooty Radio Telescope to study the properties of solar wind and in particular, he developed a method to determine the speed and other physical properties of the solar wind using IPS measurements from a single-telescope system. Manoharan's research interests include the physics of the solar wind, statistical properties of IP disturbances (Sun-Earth connection events), initiation and propagation of CMEs, and radio observations of solar transient phenomena. Manoharan has led research studies to track CMEs between the Sun and Earth and these studies are important in understanding the interaction of disturbances in the solar wind as well as for the Space Weather applications. Manoharan was the member of the Steering Committee for 'International Solar Cycle Studies (1998-2002)' (SCOSTEP). Manoharan has served as the chief convenor for sessions on solar-terrestrial physics at the Asia and Oceania Geosciences Society (AOGS) meetings and several other conferences. He is the Secretary for the AOGS Solar-Terrestrial (solar and heliospheric) Section. He has also served in several scientific organizing committees of conferences and meetings. Manoharan is the National Coordinator for the International heliophysical Year Program and also the Chairman of National Advisory Committee for IHY Program in India. He is an active member of IAU and within IAU, he serves as Member of Division II Commission 49 Interplanetary Plasma & Heliosphere and Member of Division II Sun & Heliosphere. He is the principal investigator (PI) and co-PI for national and international projects. His main aim is to motivate students and in this regard, he gives talks at schools and colleges and public lectures through Tamil Nadu Science Forum. His other academic activities include: guiding of Ph.D. students; mentoring M.Phil.(Physics) M.Sc.(Physics) and B.E. (science and engineering) students. He has guided a large number of M.Phil., M.Sc., Ph.D., and B.E. students. At present, Manoharan leads the team of scientific and engineering personnel involved in the operational and maintenance aspects of the 'Ooty Radio Telescope' and other observational facilities located in the observatory.

**Education:** 1975, B.Sc. (Special Physics), India  
1971-76 National Merit Scholarship holder, Govt. of India  
1983, M.Sc. (Physics), India  
1991, Ph.D. (Physics, Radio Astronomy), University of Bombay, India.

**Position:** Joined TIFR in 1975 and promoted to various higher levels;  
presently, Head of Radio Astronomy Centre  
National Centre for Radio Astrophysics  
Tata Institute of Fundamental Research .

**Visits:** 1993-94 JSPS Fellow, STE Laboratory, Japan  
1995-96 CNRS Fellow, Observatoire de Paris, France  
2002-03 GSFC, NASA (Catholic Univ. of America) & Univ. of Maryland, USA

**Professional Societies:** Member of Asia-Oceania Geosciences Society  
Life Member of Astronomical Society of India  
Member of International Astronomical Union

## List of Publications

### In Books and Refereed Journals:

P.K. Manoharan (Chapter 11 in the book)  
Coronal Mass Ejections (CMEs) and Associated Phenomena  
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P.K. Manoharan

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