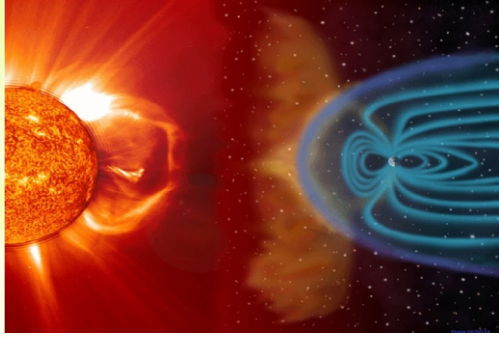


ASI Symposium 002:

Particle acceleration in the Sun and Heliosphere



Organised by

PG and Research Department of Physics

Arul Anandar College, Karumathur - 625 514

Madurai District, Tamilnadu

Sponsored by

Astronomical Society of India (ASI)



**Dates:
16th -18th
December
2024**

About the College

Arul Anandar College (Autonomous) is a Jesuit Minority Catholic Institution, affiliated to Madurai Kamaraj University, located in a rural background at a distance of 20km from Madurai City. The college was founded in 1970. In June 1987, it was granted Autonomous status by the University Grants Commission and the Government of Tamil Nadu. In May 2022, the college was reaccredited by NAAC with 'A' Grade in cycle IV.

About the Department

The Department of Physics was established as ancillary department in the year 1971. At present B.Sc and M.Sc degree programmes in Physics are offered under the Choice Based Credit System (CBCS) and Outcome Based Education (OBE). The department is recognized as one of the research centre of Madurai Kamaraj University from the year 2013. The staff members are specialized in various fields like Photonics, Astrophysics, Thin Films and Nano science. Our staff also guide scholars pursuing Ph.D Programme on part time and full time basis.

Rationale of the Symposium

The study of particle acceleration and transport is an important topic in Astrophysics, Heliophysics and Space-weather research. On the Sun and in the heliosphere, these particles are the sources of electromagnetic emissions at different wavelengths. Starting from electrons and protons to heavier ions are accelerated during the transient activities of the dynamic Sun. Energetic particle acceleration up to several MeV (electrons) and ions up to GeV have been studied theoretically and some of the results have been explored through experimental observations and modeling. Many of the spacecraft dedicated for solar and heliospheric observations have particle detectors of wide energy range. Also, solar energetic particle (SEP) events are one of the major causes of space weather impact on space-based technological systems. Impulsive SEP events are associated with solar flare reconnection sites while the gradual SEP events are accelerated by coronal mass ejection (CME) driven shocks. Many authors have proposed that the abundance of the ambient seed particles is also a determining factor in the large peak intensity of SEP events. Large data base of particles from the sun is available from the space-based instruments like the recently launched spacecraft ADITYA L1. It has to be analysed and studied by solar data scientists. In general, a number of questions are to be discussed with experts in this field and presented to the younger audience from this part of geo-sphere. Hence the symposium on particle acceleration has been planned.

Who can attend : College/University/Research Organization research scholars, post-docs and teachers in India

LOC:

- Dr. K.S. Joseph Wilson, Associate Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. A. Shanmugaraju, Associate Professor & Head of Physics, Arul Anandar College, Karumathur, Madurai. (Chair)
- Dr. S. Valanarasu, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. J. Sophia, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. C.S.A. Raj, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. S. Sebastian, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. M. Antony, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. I. Inigo Valan, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai
- Dr. P. Diana, Assistant Professor of Physics, Arul Anandar College, Karumathur, Madurai

SOC:

- Dr. A. Shanmugaraju, Arul Anandar College, Madurai
- Dr. C. Kathiravan, Associate Prof., Indian Institute of Astrophysics, Bangalore
- Dr. S.P. Rajaguru, Professor, Indian Institute of Astrophysics, Bangalore
- Dr. Piyali Chatterjee, Associate Professor, Indian Institute of Astrophysics, Bangalore
- Dr. Durgesh Tripathi, Professor, IUCAA, Pune
- Dr. A.K. Srivastava, Professor, IIT, BHU, Varanasi
- Dr. K. Sankarasubramanian, Scientist, U R Rao Satellite Center, ISRO, Bangalore
- Dr. Nitin Yadav, Assistant Professor, IISER, Thiruvananthapuram, Kerala
- Dr. G. Selvarani, Associate Prof. in Physics, Sri Meenakshi Govt. Arts College for Women, Madurai

List of Speakers:

- Dr. N. Gopalswamy, NASA, USA
- Dr. Ramesh Chandra – Kumaun University, Nainital
- Dr. Bhuwan Joshi, PRL, USO, Udaipur
- Dr. M. Shanmugam, PRL, USO, Udaipur
- Dr. Sasikumar Raja, IIA, Bangalore
- Dr. Arun Babu – CUSAT, Kerala
- Dr. Rohit Sharma, IIT, Kanpur
- Dr. Aweek Sarkar, PRL, USO, Udaipur
- Dr. Kirit Makwana, IIT, Hyderabad

Organizing Committee under the Patronage of

Rev. Dr. John Pragasam, SJ, Rector, Arul Anandar College

Rev. Dr. A. Antonysamy, SJ, Secretary, Arul Anandar College

Rev. Dr. M. Anbarasu, SJ., Principal, Arul Anandar College

SCAN FOR WEBSITE



Venue of the Symposium :

**Day 1 and 2 : Arul Anandar College,
Karumathur-625 514 Madurai Dist., Tamilnadu**

Day 3 : Kodaikanal Solar Observatory

Visit for interested participants (on extra payment of Rs.1000/-)

Registration/Abstract submission details:

Registration fee: Rs.2000/-

Registration options: Invited talk, Contributed talk : Oral/poster, Participant

Researchers across India are invited to submit abstracts in the prescribed format related to the theme of the symposium. Apart from 6-8 invited talks, a set of contributed talks will be selected from the submitted abstracts related to the theme of the symposium. The remaining accepted abstracts will be presented as poster papers.

Format of the abstract:

Abstract title followed by authors and their address, email

Font: Times New Roman, Font size – 12, Single line spacing, MsWord Format

Support for Ph.D. students: A limited fund is available for research scholars for their registration/travel/accommodation. Based on the decision of SOC, this support may be provided based on request from the scholars via email to the convenor.

Registration and abstract submission starting : 1st October 2024

Abstract submission closing Date : 30th October 2024

Communication of selected abstracts : 15th November 2024

Convenor : Dr. A. Shanmugaraju

Associate Prof. and Head PG and Research Dept. of Physics
Arul Anandar College, Karumathur-625 514

Madurai Dist., Tamilnadu

Email: shanmugaraju@aactni.edu.in Cell : 98429 82672

Contact : Mr. Aswin, Cell : 72000 33499

Ms. Vijayalakshmi, Cell : 92837 63626

Link for registration/abstract submission : <https://forms.gle/6YoivMESoLFWBUzd9>