Abhishek Johri

Current Position

Assistant Professor (Physics)
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur-*492010*
Chhattishgarh-India
Mobile : *+91-7875644249*
Mobile : *+91-9439874186*
e-mail : *johri.exp@gmail.com, johri.solar@gmail.com*

Personal Information

Date of Birth **July 1, 1986**.

Nationality **Indian**.

Marital Status **Married, Since January 20, 2015**.

Education

2010–2018 **Ph.D. in Physics (Astronomy and Astrophysics)**, *Tata Institute of Fundamental Research (TIFR)*, Mumbai, Maharashtra-India.

2008–2010 **M.Sc. Physics (Specialization in Astrophysics)**, *Pandit Ravishankar Shukla University*, Raipur, Chhattisgarh-India.

2004–2007 **B.Sc. (Honours in Physics)**, *Banaras Hindu University*, Varanasi, Uttar Pradesh-India.

Doctoral Thesis

Title **Acceleration and Evolution of Solar Energetic Particle Events in the Sun-Earth Distance**.

Supervisor **Professor P. K. Manoharan**, *Radio Astronomy Centre (RAC), National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR)*, Ooty, Tamilnadu-India.

Description This thesis presents the study of propagation of coronal mass ejections (CMEs) in the Sun-Earth distance and associated kinematics of CMEs with the time (as well as distance) evolution of solar energetic particle (SEP) events from their onset near the Sun to the crossing time at the magnetosphere of the earth. This thesis work covers a study of large number of solar events, which occurred over a period of ∼3 solar cycles.

Research Interests

1 CME Propagation & CME-CME Interaction

2 Solar Energetic Particle Events

3 Space Weather

4 Data Analysis Automation for large volume of data

Awards & Honour

2010 CSIR-UGC (India) National Eligibility Test (2009) : Qualified for Junior Research Fellowship and Lectureship

2010 1st Rank and Gold medal in the Master of Science degree at Pandit Ravishankar Shukla University, Raipur

Publications

1. Intense Solar Energetic Particle Events: Acceleration Associated with Shocks Driven by Coronal Mass Ejections (full paper related to the thesis).
   Johri, A. and Manoharan, P. K. 2019, In-preparation

2. Current State of Reduced Solar Activity: Intense Geomagnetic Storms.
   P.K. Manoharan, K. Mahalakshmi, **A. Johri**, B.V. Jackson, D. Ravikumar, K. Kalyanasundaram, S.P. Subramanian, A. K. Mittal 2018, *Sun and Geosphere*, **13**, 135. Peer-reviewed international journal.

3. Intense Flare-CME Event of the Year 2015: Propagation and Interaction Effects between Sun and Earth's Orbit (full paper related to the thesis).
   Johri, A. and Manoharan, P. K. 2016,*Solar Phys.*, **291**, 1433. Peer-reviewed journal, Impact factor 2.682

4. Interplanetary Consequences of Coronal Mass Ejection Events occurred during 18–25 June 2015 (full paper related to the thesis).
   Manoharan, P. K. and Maia, D. and **Johri, A.** and Induja, M. S.2016, Coimbra Solar Physics Meeting: Ground-based Solar Observations in the Space Instrumentation Era, **504**, 59. Conference Series of the Astronomical Society of the Pacific.

5. Imaging radio recombination line emission from galactic star forming regions using GMRT (2 pages).
   Johri, A., Kantharia, N. G, & Roshi, A. D. 2014, Astronomical Society of India Conference Series, **13**, 281. Conference Series of the Bulletin of the Astronomical Society of India.

Oral Presentations

1. **Acceleration and Evolution of Solar Energetic Particle Events in the Sun-Earth Distance**, 35th Meeting of the Astronomical Society of India, Jaipur, India, 2017.

2. **Studying Bandpass Stability at GMRT using Radio Recombination Lines Observations**, Regional Conference on Radio Science, Pune, India, 2014.

Poster Presentations

1. **Imaging Radio Recombination Line emission from Galactic star forming complexes**, 32nd Meeting of the Astronomical Society of India, Mohali, India 2014.
2. **Radio Recombination Line emission from Galactic star forming regions**, 33rd Meeting of the Astronomical Society of India, Pune, India 2015.
3. **Imaging Radio Recombination Line emission from Galactic star forming complexes with the GMRT Software Back-end (GSB)**, METREWAVELENGTH SKY, NCRA, Pune, India, 2013.

Conference & Workshops

Mar–2017	Attended and given an oral presentation in the 35th meeting of the Astronomical Society of India, Jaipur, India
Nov–2016	Attended SCOSTEP/ISWI International School on Space Science, Sangli, India
June–2016	Attended a national workshop on Science with the uGMRT, Pune, India
Jan–2016	Attended international conference on Science for Space Weather, Goa, India
Feb–2015	Attended and presented a poster in the 33rd meeting of the Astronomical Society of India, NCRA, Pune, India
Sep–2014	Attended a workshop on Advanced Radio Astronomy, NCRA, Pune, India
Mar–2014	Attended and presented a poster in the 32nd meeting of the Astronomical Society of India, IISER Mohali, India
Dec–2013	Presented a poster in conference The Metre Wavelength Sky: Celebrating 50 years of Radio Astronomy at TIFR & 10 years of GMRT, NCRA, Pune, India
Feb–2011	Attended the 29th meeting of the Astronomical Society of India, Raipur, India

Science Popularization and Public Outreach

2016–2017	Worked as a committee member for science day held at Radio Astronomy Centre, NCRA-TIFR, Ooty
2012–2014	Worked as a committee member for science day held at Giant Metrewave Radio Telescope (GMRT). Volunteered many outreach programmes such as Transit of Venus, Day Time Astronomy, Sky gazing programs and Solar eclipse exhibitions
2011	Worked as a LOC member for 29^{th} Scientific Meeting of Astronomical Society of India
2009	Worked as a committee member in a 3 Days State Level Camp for College Students, Celebration of International Year of Astronomy at Pandit Ravishankar Shukla University, Raipur, India
2007	Worked for science popularization committee of Tata Institute of Fundamental Research, Mumbai, India

Languages

English	**Speak, Read, Write**	*fluent*
Hindi	**Speak, Read, Write**	*Mother tongue*

Professional Referees

1. **Professor Govind Swarup, FRS,**
   Emeritus Professor, NCRA-TIFR, Pune.
   email: swarup@ncra.tifr.res.in, gswarup29@gmail.com,
   Mobile: *+91-8975782096*
2. **Professor P. K. Manoharan**,
   Former Head, RAC, NCRA-TIFR, Ooty.
   e-mail: mano@ncra.tifr.res.in, mano.rac@gmail.com,
   Phone: *+91-9442614522*
3. **Professor Swarna K. Ghosh**,
   Former Centre Director, NCRA-TIFR, Pune.
   email: swarna@ncra.tifr.res.in, swarna@tifr.res.in,
   Phone: *+91-9867204645*.