

Dr. Alok Ranjan Tiwary



Curriculum Vitae

Personal information

Name: Dr. Alok Ranjan Tiwary
Current Position: Assistant Professor
Birth date: Jan 15, 1990
Nationality: Indian
Sex, Marital Status: Male, Married
Contact Address

Department of Physics
Rajendra College, Chapra
A Constituent Unit of Jai Prakash University, Chapra, Bihar, India
PIN: 841301
MOBILE: +91 9304273981, +91 7568506308
E-mail: tiwaryphysics@gmail.com

List of Publications

Refereed Journals:

1. “*Imaging Spectropolarimeter for Multi-application Solar Telescope at Udaipur Solar Observatory: Characterization of polarimeter and preliminary observations*”, **Alok Ranjan Tiwary**, Shibu K. Mathew, A. Raja Bayanna, P. Venkatakrisnan, and Rahul Yadav, *Solar Physics* (2017), 292:49.
2. “*Estimation of order parameter of a Liquid crystal variable retarder using Haller’s approximation*”, **Alok Ranjan Tiwary**, A. Raja Bayanna, Shibu K. Mathew, *Applied Optics* (2017), 56, 14.
3. “*First observations from Multi-application Solar Telescope narrow band imager*”, Shibu K. Mathew, A. Raja Bayanna, **Alok Ranjan Tiwary**, and P. Venkatakrisnan, *Solar Physics* (2017), 292:106.
4. “*SPIN: an inversion code for the photospheric spectral line*”, Rahul Yadav, Shibu K. Mathew, and **Alok Ranjan Tiwary**, *Solar Physics* (2017), 292:105.

———— Schools/Workshops attended

- May 18-23, 2015 3rd SOLARNET School: “Solar Magnetic Fields: Modeling and measuring techniques”, IAA, Granada, Spain.
- Feb 05–07, 2013 “Introductory Workshop on Solar Physics”, Ramakrishna Mission Vivekananda University, Belur Math, West Bengal, India.
- Oct 06–18, 2008 Advanced Training programme in Linear Algebra and Analysis, Department of Mathematics, Banaras Hindu University, Varanasi, U.P.
- May 29, 2019 One day workshop on the “Sensitization Workshop for Promotion of Research in the Universities of Bihar” at Hotel Lemontree Premier, Patna, jointly organized by Rajbhavan Bihar and Tilka Manjhi Bhagalpur University, Bhagalpur.
- Jan 22- Feb 18, 2019 Attended 82nd Orientation programme organized by UGC-HRDC Patna University, Patna.

———— Talks/Oral presentations

1. *Imaging Spectro-polarimeter for Multi Application Solar Telescope: preliminary results obtained in 617.3 nm and 854.2 nm*, **XXXV Meeting of Astronomical Society of India, held at B. M. Birla Auditorium, Jaipur**, during March 06-10, 2017.
2. *Imaging Spectro-polarimeter for Multi Application Solar Telescope: Calibration and preliminary results*, **19th National Space Science Symposium-2016, held at Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala, India**, during Feb. 09-12, 2016.
3. *Polarimeter for Multi Application Solar Telescope at Udaipur Solar Observatory*, **3rd SOLARNET Workshop on “Polarization in the Sun, the solar system, and Beyond” held at Granada, Spain**, during May 25–28, 2015.
4. Delivered a **invited talk** on Spectropolarimetric observations of Solar Magnetic Fields with Multi Application Solar Telescope, in the National Seminar on “Current Scenario in Material Science” (NSCSM-2020) held at Kamla Rai College (A Constituent unit of Jai Prakash University, Chapra), Gopalganj, Bihar, during January 06–07, 2020.

Poster presentations

1. *Polarimeter for Multi Application Solar Telescope at Udaipur Solar Observatory*, **Alok Ranjan Tiwary** and Shibu K. Mathew, 18th National Space Science Symposium (NSSS-2014), held at Dibrugarh University, Dibrugarh, Assam, India during Jan. 29–Feb. 1, 2014.
2. *Imaging Spectro-polarimeter for Multi Application Solar Telescope: Preliminary results obtained in the photospheric line Fe I 617.3 nm*, **Alok Ranjan Tiwary et.al.** , Dynamic Sun I: MHD Waves and confined Transients in the magnetized atmosphere, Jointly organised by **Indian Institute of Technology, Banaras Hindu University and University of Sheffield, U.K.** , held at Varanasi, U.P., India during Feb. 22–26, 2016.

Education

- 2012-2018 Ph.D. (Solar Physics, Instrumentation)
Udaipur Solar Observatory (USO), Physical Research Laboratory, Udaipur, India
Awarded by Indian Institute of Technology (IIT), Gandhinagar, India
Thesis title: **Measurements of Solar Magnetic Fields:
Development of a polarimeter for *Multi Application Solar Telescope (MAST)*.**
Supervisor: Prof. Shibu K. Mathew, Udaipur Solar Observatory, PRL, India
Date of thesis Award: July 28, 2018
- 2011–2012 Two semester Pre-Ph.D. course
Physical Research Laboratory, Ahmedabad, India
- 2009–2011 Master of Science (Physics)
First division
University of Delhi, Delhi, India
- 2006–2009 Bachelor of Science with Physics, Chemistry & Mathematics
First division
D.D.U. Gorakhpur University, Gorakhpur (U.P.), India
- 2006 Intermediate with Physics, Chemistry, Mathematics, English & Hindi
First division
U.P. Board
- 2004 High School
First division
Bihar Board

██████████ Fellowships & Professional qualifications

- 2011-2017 Research Fellowship (JRF & SRF) at Physical Research Laboratory (PRL), Ahmedabad, India
- March 2011 Qualified Graduate Aptitude Test in Engineering (GATE)
GATE score – 499
GATE Percentile– 97.30
All India Rank – 179
- June 2011 Qualified National Eligibility Test (NET) for lectureship in Physics at Indian Universities and Post Graduate Colleges
All India Rank – 266/543
- March 2011 Qualified Joint Entrance Screening Test (JEST)
All India Rank – 250

██████████ Computer skills

- Expert in Solar Data Analysis with IDL and well acquainted with SolarSoftWare (SSW).
- Familiar with the programming languages: Fortran, C, C++, LATEX, MATLAB, and Mathematica.
- Experienced with Linux and Windows Operating Systems.

██████████ Awards & Achievements

- Junior Research Fellowship (**JRF**) for Doctoral Studies & Research (August, 2011), Physical Research Laboratory, Department of Space, Ahmedabad, Gujarat, India.
- Senior Research Fellowship (**SRF**) for Doctoral Studies & Research (August, 2013), Physical Research Laboratory, Department of Space, Ahmedabad, Gujarat, India.
- Qualified Graduate Aptitude Test in Engineering (**GATE**), Physics with all india rank 179, with **97.30 percentile**, conducted in February, 2011.
- Qualified National Eligibility Test (**NET**) for lectureship in physical sciences with all India rank, 266, conducted in June 2011.
- Qualified Joint Entrance Screening Test (**JEST**) in physics with all india rank 250, conducted in february 2011.
- Awarded **Meritorious Student Scholarship** by Delhi University for securing **Second** rank in M.Sc. Previous year among 250 students, 2010.

██████████ Academic Work/Co-Curricular Activities

- Life-time member of Astronomical Society of India.
- Worked as Reviewer for reputed journals.
- Appointed as Nodal Officer for the online reporting to the Rajbhavan, Bihar of all the B.Ed. colleges of J.P. University, Chapra.
- Appointed as Nodal officer for wi-fi in Rajendra College, Chapra.

- Appointed as Academic Counsellor in IGNOU.
- Appointed as Examiner for evaluating answerbooks of UG(B.Sc or TDC) part I, II, III.
- Appointed as Internal and External Examiner for practical examinations of UG(B.Sc or TDC) part I, II, III.
- Member of Career Counselling & Placement Cell, Rajendra College, Chapra.
- Member of Research Promotion Cell, Rajendra College, Chapra.
- Member of ICT Implementation & Maintenance Committee, Rajendra College, Chapra.
- Member of Building Committee, Rajendra College, Chapra.
- Executive Member in Rajendra College Teachers Association.