Dr. Bheem Singh Jatav
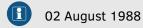
Assistant Professor,
(JNU Jaipur).
Editor
(International Journal of Astrophysics and Space Science)

02 August 1988

JNU, Jaipur.   Permanent address: KR-53, City police line , Kota. India-324001.

+91 8293862223

http://bheemsinghj.com

bheemsinghj@gmail.com

About me

I graduated from the Govt. College Kota in 2008 with a first calss degree in Physics, Mathematics, Chemistry and M.Sc. from the University of Kota, Kota, Rajasthan in 2010 with a second class degree in Physics and went on to obtain a PhD from the Sikkim University in 2021 under the supervision of Professor Dr. Hemam Dinesh Singh, on the topic of Numerical Simulation to Study Solar Wind Turbulence and Coronal Heating.

Skills

Basic Python,

LaTeX word

Mathematica

MATLAB

FORTRAN

Interests

My teaching interest are electrodynamics, plasma physics and computaional space plasma physics. And my research interest are space plasma physics, Alfven wave, solar coronal heating.

Education

2012-2021	Ph.D. Sikkim University	Gangtok, Sikkim
	Numerical Simulation to Study Solar Wind Turbulence and Coronal Heating. Supervisor: Dr. Hemam Dinesh Singh	
2010-2011	B.Ed. Physics, S.K. TT College, Kota 71.60%	Kota, Rajasthan
2009-2010	M.Sc. Physics, Govt. college Kota 59.33%	Kota, Rajasthan
2006-2008	B.Sc., Govt. College Kota 60.00%	Kota, Rajasthan
2005	B.S.N. School, Kota Mathematics, Physics, Chemistry	Kota, Rajasthan

Publications

1. Hemam Dinesh Singh and Bheem Singh Jatav: Coherent structures and spectral shapes of kinetic Alfven wave turbulence in solar wind at 1 AU, Research in Astronomy and Astrophysics, January 2019, Vol. 19 No. 7, 93(14pp). doi: 10.1088/1674-4527/19/7/93

2. Hemam Dinesh Singh and Bheem Singh Jatav: Anisotropic turbulence of kinetic Alfven waves and heating in solar corona, Research in Astronomy and Astrophysics, July 2019, Vol. 19 No. 12, 185(16pp) doi: 10.1088/1674-4527/19/12/185

3. Hemam Dinesh Singh and Bheem Singh Jatav: Inertial Alfven waves and particle energization in solar coronal holes and aurora (to be submitted)

Awards

2015	UGC	New Delhi
	Rajiv Gandhi National Fellowship(RGNF), UGC, India	

Conference Papers and Workshops

1.   Bheem Singh Jatav: Numerical simulation of kinetic Alfven waves for intermediate-plasma to study localized structure of solar wind, 24th Raman Memorial Conference, 23rd - 24th February, 2018, Savitribai Phule Pune University, Pune, India.

2.   Bheem Singh Jatav: Numerical simulation of IAW (Inertial Alfven wave) to study nonlinear structures and spectral index for aurora 6th PSSI Plasma Scholars Colloquium 2018, 24-26 August 2018, SMIT Majitar, Rangpo, East Sikkim-737136, INDIA

3.   Bheem Singh Jatav and Hemam Dinesh Singh: Coherent structures of kinetic Alfven waves in solar corona -12th International Conference on Plasma Science and Applications, 11-14 November 2019, University of Lucknow, India

4.   Bheem Singh Jatav: Computational Astrophysics and Cosmology Workshop (CO-MAC2018) MHD Simulations in Astrophysics and Space Plasma. Workshop, 2-6 July 2018, National Astronomical Research Institute of Thailand, Chiang Mai, Thailand.

5.   Bheem Singh Jatav: Kinetic Scale Density Fluctuations to study solar coronal heating, PSSI, PLASMA-2021, 13-15 December 2021, Birla Institute of Technology, Mesra, Jaipur Campus, India.

6.   Bheem Singh Jatav and Hemam Dinesh Singh: Numerical Simulation of Kinetic Alfven wave in Intermediate- plasma to study turbulent spectrum, PSSI, Virtual National Conference on Plasma Science and Applications (PSA-2021), 20-21 December 2021, Department of Physics, Sardar Vallabhbhai National Institute of Technology Surat - 395007, India

7.   Bheem Singh Jatav: "Kinetic Alfven Wave to Study Solar Coronal Heating", 42nd International Workshop on HighEnergy-Density Physics with Intense Ion and Laser Beams, January 31st – February 4th, 2022, GSI Helmholtzzentrum fur Schwerionenforschung GmbH Planckstrabe 1, 64291 Darmstadt, Germany, www.gsi.de

Experience

2011	SKTT college,kota	Kota, Rajasthan

Six month teaching experience in Jaipur National University as a Assistant Professor. And Three months experience during B.Ed. course.

SOFTWARE SKILLS

Linux and Windows operating systems, FORTRAN, MATLAB, Basic Python, Mathematica, LaTeX word processing.

Other research information

My research initially focused on the magnetospheric dynamics and auroras formation of Earth and Solar coronal heating. I study the coherent structures of the magnetic fields of these objects, and how this relates to their coronal heating and auroral formation. I use a combination of MHD modelling, remote sensing and in situ data analysis, for example employing data obtained by solving the dynamical equation using FORTRAN 95 and structures obtained by MATLAB.