

Krishnendu Mandal

Curriculum Vitæ

Personal Details

Nationality Indian
Present Employment Postdoc at Max-Planck Institute for Solar System Research
Email Id. mandal@mps.mpg.de; krishnendum218@gmail.com

Education

2014–2019 Ph.D. in Physics
Tata Institute for Fundamental Research, Mumbai
2012–2014 **M.Sc. in Physics**
Indian Institute of Technology, Kanpur
2009–2012 **B.Sc.(Honours) in Physics**
Ramakrishna Mission Vidyamandira
A College under University of Calcutta

Fellowships

2009–2014 **Inspire Scholarship**, *Department of Science and Technology*, Government of India.

Computer skills

Languages Fortran, C, Python.
High performance computing

Teaching Experience

Autumn 2016 **Teaching Assistant.**
Course: Mathematical Methods
Instructor: Dr. Shravan Hanasoge
Institute: TIFR

Masters Project

Title *To Find an efficient Chiral Gauge Invariant Lagrangian for Lattice Gauge Theory*

Research Interests

Studying solar interior dynamics e.g. differential rotation, meridional flow and Rossby waves using helioseismology.

Publications

1. **Finite-frequency Sensitivity Kernels in Spherical Geometry for Time-Distance Helioseismology**
Krishnendu Mandal, Jishnu Bhattacharya, Samrat Halder, Shравan Hanasoge
The Astrophysical Journal, Volume 842, Issue 2, article id. 89, 11 pp. (2017)
arXiv:1705.04020 [astro-ph.SR].
2. **Helioseismic Inversion to Infer the Depth Profile of Solar Meridional Flow using Spherical Born Kernels**
Krishnendu Mandal, Shравan Hanasoge, S. P. Rajaguru, H. M. Antia
The Astrophysical Journal, Volume 863, Issue 1, article id. 39, 10 pp. (2018)
arXiv:1807.00314 [astro-ph.SR].
3. **Detection of Rossby Waves in the Sun using Normal-mode Coupling**
Shравan Hanasoge and Krishnendu Mandal
The Astrophysical Journal Letters, Volume 871, Issue 2, article id. L32, 5 pp. (2019)
arXiv:1901.06479 [astro-ph.SR]
4. **Properties of Solar Rossby Waves from Normal Mode Coupling and Characterizing Its Systematics**
Krishnendu Mandal and Shравan Hanasoge
The Astrophysical Journal, Volume 891, Number 2 (2020)

Conferences/Workshops Attended

- Mar 2019 **Second Max-Planck Partner Group Program**, Mumbai, India.
- Feb 2018 **IAUS 340**, Jaipur, India.
- Sep 2017 **ESPM 15**, Budapest, Hungary.
- Mar 2017 **ASI 2017**, Jaipur, India.
- May 2016 **ASI 2016**, University of Kashmir, Srinagar, India.
- Dec 2015 **Advances in Seismology**, TIFR, Mumbai, India.

Collaborative Visits

- May 2017 Max Planck Institute for Solar System Research, Göttingen, Germany