



RAJSEKHAR MOHAPATRA

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- Academic appointments** Postdoctoral research associate, Department of Astrophysical Sciences, Princeton University, 2022–present.
- Education** PhD, Research School of Astronomy and Astrophysics (RSAA), Australian National University (ANU), Canberra, 2018–2022.
B.Sc.(Research), Indian Institute of Science (IISc), Bengaluru, 2014–2018.
Major Subject: *Physics*.
- Research Interests** Galaxies and galaxy clusters, physics of fluids and plasma, turbulence in astrophysical scales.
- Research projects** *The role of type Ia supernovae in elliptical galaxies*, September 2022–present.
Primary supervisor: *Prof. Eliot Quataert, Princeton University*.
Stratified turbulence in the intracluster medium, October 2018–2022.
Primary supervisor: *Prof. Christoph Federrath, RSAA, ANU*.
Studying turbulence in the intracluster medium., May 2017–June 2018.
Supervisor: *Prof. Prateek Sharma, Dept of Physics, IISc*.
- Recent invited talks** *ICM Theory and Computation workshop*, University of Michigan, June 2024.
Galaxy talk, CCA, Flatiron Institute, March 2024.
Turbulence in the Universe, KITP, Santa Barbara, February 2024.
Monday science seminar, Department of Astronomy, UW-Madison, Wisconsin, United States, April 2023.
- Recent conferences and seminars** *Galaxy discussion*, IOA, University of Cambridge, May 2024.
Galaxy lunch talk, Department of Physics, University of Oxford, May 2024.
KIPAC XOC group talk, Stanford University, February 2024.
Tea talk, Caltech, February 2024.
Turbulence in Astrophysical Environments, KITP, Santa Barbara, United States, January–March 2024.
Galaxy lunch seminar, Department of Astronomy, Yale University, New Haven, United States, April 2023.
Oasis in the cosmic desert conference, Arizona State University, Arizona, United States, February 2023.
Exploring the Hot and Energetic Universe conference, Barcelona, Spain, November 2022.
- Programming languages** C, C++, FORTRAN, Python, L^AT_EX, VisIt, Shell scripting.
- Computing time** 3 million ACCESS credits, equivalent to 45000 GPU hours on the NCSA Delta GPU machine.

Advanced code	Athenak, FLASH, PLUTO.
Super-computers used	Della, Stellar (Princeton), Delta (Illionois), Lumi (Finland), Gadi, Rajjin, (Australia).
Refereeing	Referee for <i>MNRAS</i> , <i>APJ</i> , <i>A&A</i> , <i>Frontiers</i> , 2022–present.
Languages	<i>Odia</i> : Native Language (speaking, reading, writing). <i>English</i> : Fluent (speaking, reading, writing). <i>Hindi</i> : Fluent (speaking, reading, writing).
Mentoring	Serving as a mentor in the Undergraduate Summer Research Program, Princeton University, June 2024–present. Co-mentored Mrinal Jetti during his Masters thesis, July 2020–August 2021. Mentored high school students in Astronomy projects at Mount Stromlo observatory through <i>MSATT</i> , February 2019–September 2020.
Tutoring	Tutor for <i>Advanced Electromagnetism</i> , with the ANU Tjabl centre, February–June 2021. Tutor for <i>Physics of Materials</i> , February–June 2020.
Outreach activities	Member of public observing team, Department of Astrophysical Sciences, Princeton University, NJ, USA, September 2023–present. Outreach assistant, organized over 50 school visits at Mt. Stromlo Observatory, Canberra, Australia November 2018–2022. Volunteer for Lunar eclipse event at Australian Parliament House, 26 May 2021. Online public talks in astronomy at home series, 2020. Volunteer at Starfest, Siding Spring Observatory, Coonabarabran, NSW, Australia October 2019. Open day presentations at Indian Institute of Science, Bangalore, India 2015–2018.
Other activities	Member of the <i>PCTS workshop local organizing committee for Synergistic approaches to particle transport in magnetized turbulence: from the laboratory to astrophysics</i> , Princeton University, 2023–2024. Member of the <i>Inclusion, Diversity, Equity and Access (IDEA) committee</i> , RSAA, ANU, September 2020–2022. Member of the <i>Mount Stromlo student seminars organizing committee</i> , RSAA, ANU, May–November 2019.