

CV

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Academic Positions

3/17 - present Associate Professor, Department of Physics, IISc Bangalore, India
7/11 - 3/17 Assistant Professor, with tenure since 6/16
9/06 - 6/11 Postdoctoral Researcher, Astronomy Department, UC Berkeley
9/01 - 8/06 Graduate Research Assistant, Plasma Physics Lab, Princeton

Education

9/01 - 8/06 M.A., Ph.D. in Astrophysical Sciences (Plasma Physics), Princeton
8/97 - 5/01 B. Tech. in Engineering Physics, Indian Inst. of Technology (Bombay)

Selected Awards/Grants

07/19 Dr. Abdul Kalam HPC Award for Contributions in India
07/18 Humboldt Fellowship for Experienced Researchers
11/17 DST Swarnajayanti Fellowship for the year 2016-17
11/15 Buti Foundation Award in plasma science and technology
9/14-9/18 UGC-ISF Indo-Israel joint research grant (Rs. 86 Lakhs)
12/13 Parvez Guzdar Young Scientist Award in Plasma Astrophysics
6/08-6/11 Chandra/Einstein Fellowship from NASA

Teaching

12-13 twice taught a graduate course on Numerical Methods in Astrophysics
13-14 twice taught an undergraduate course on Electromagnetism and Optics
14-15 twice taught a graduate course on Astrophysical Fluids and Plasmas
16-17 twice taught a grad+undergrad course on Introduction to Astrophysics
19-20 twice taught a graduate course on Radiative Processes in Astrophysics
19-20 twice taught a graduate course on Computational Physics

Selected Invited Talks

04- invited talks/colloquia at Princeton, Maryland, Wisconsin, Berkeley, Stanford, UCSB, IIT Kanpur, NCRA, PRL, TIFR, TCIS, SINP, IISc, ICTS, IUCAA, RRI, Technion, Ben-Gurion University, MPA, IPP Garching, AIP Potsdam, Niels Bohr Institute, Northumbria
13,15,20,21 Astronomical Society of India (ASI) meeting
14,16,19 ICM workshop series: Copenhagen, Minneapolis, & Budapest
17 KITP program & conference on MHD accretion (disks17), UCSB
18 ICM Physics & Modeling, MPA/ESO Garching
19 CGM Berlin 2019
20 Multiphase CGM Workshop, KITP, UCSB
21 KITP program on circumgalactic medium (halo21), UCSB

Professional Service & Committees

Referee for Astrophysical Journal, Physics of Plasmas, Science, Journal of Astrophysics & Astronomy, Astronomy & Astrophysics, Journal of Computational Physics, Monthly Notices of Royal Astronomical Society, Physical Review D, Physical Review Letters

Member of the Telescope Allocation Committee for IIA HCT & VBT telescopes (2014-16)

Organized (SOC, LOC convenor) the “Bubbles Big and Small Conference” at IISc (2018)

SOC: Astronomical Society of India (ASI) meetings (2016-2019), COSPAR meeting session “Thermal and Dynamic Plasma Instabilities on Multiscales” (2021)

Member of the National Committee for the International Astronomical Union (2020-23)

External proposal reviewer HST cycle 28 panel on the circumgalactic and intergalactic medium (2020)

Department service: member of the Faculty Search Committee (2018-), Departmental Course Committee (DCC) Chair (2020-)

Five Significant Publications (over last five years)

1. V. Kanjilal, A. Dutta, **P. Sharma**, “Growth and structure of multiphase gas in the cloud-crushing problem with cooling,” Monthly Notices of the Royal Astronomical Society, 501, 1143 (2021)
2. P. P. Choudhury, **P. Sharma**, E. Quataert, “Multiphase gas in the circumgalactic medium: relative role of $t_{\text{cool}}/t_{\text{ff}}$ and density fluctuations,” Monthly Notices of the Royal Astronomical Society, 488, 3195 (2019)
3. R. Mohapatra, **P. Sharma**, “Turbulence in the intracluster medium: simulations, observables, and thermodynamics,” Monthly Notices of the Royal Astronomical Society, 484, 4881 (2019)
4. **P. Sharma**, “Astrophysical radio background cannot explain the EDGES 21-cm signal: constraints from cooling of non-thermal electrons,” Monthly Notices of the Royal Astronomical Society, 481, L6 (2018)
5. D. Prasad, **P. Sharma**, A. Babul, “Cool Core Cycles: Cold Gas and AGN Jet Feedback in Cluster Cores,” Astrophysical Journal, 811, 108 (2015)

PhD Students

Sourav Bhadra (joint with B. Nath); Prakriti Pal Choudhury (postdoc at Cambridge); Prasun Dhang (joint with B. Mukhopadhyay; postdoc at Tsinghua); Alankar Dutta; Ritoli Ghosh; Siddhartha Gupta (joint with B. Nath; postdoc at Chicago); Rajsekhar Mohapatra (student at ANU, joint with C. Federrath); Deovrat Prasad (postdoc at MSU); Arpita Roy (joint with B. Nath; postdoc at ANU); Kartick C. Sarkar (joint with Biman Nath; postdoc at Tel Aviv/Hebrew University); Aditi Vijayan (joint with B. Nath; postdoc at Shanghai Observatory)

Postdoc Mentees

Kiran Lakhchaura (postdoc at Eötvös Loránd University, Budapest); Naveen Yadav (postdoc at MPA, Garching)