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**Personal  
Information**

**Date of Birth:** June 20, 1982

**Nationality:** Indian

**Researcher unique identifiers:**

- **ORCID:** 0000-0001-9829-7727
- **Web of Science Researcher ID:** Y-5408-2019

**Research  
Interests**

**Interstellar Medium:** thermal phases, turbulence, B-field, star formation

**Cosmology:** epoch of reionization, neutral hydrogen at cosmological redshift

**Galactic Novae:** evolution of radio emission, accretion/ejection physics

**Education &  
Experience**

- Bengal Engineering College (Deemed University)  
B. E. in Mechanical Engineering (**2003**), First Class
- Tata Institute of Fundamental Research (Deemed University)  
M. Sc. In Physics (**2005**), First Class  
Ph. D. in Physics (**2009**)  
Dissertation topic: *"Between the stars: The multiphase turbulent ISM"*
- Postdoctoral experience:  
National Radio Astronomy Observatory, USA (**2009 - 2012**)  
Max-Planck-Institut für Radioastronomie, Germany (**2013 - 2015**)
- Professional experience:  
Assistant Professor, Indian Institute of Technology, Kharagpur (**2015 - 2016**)  
Assistant Professor, Indian Institute of Science, Bengaluru (**2016 -** )  
  
Ambassador Scientist, Alexander von Humboldt Foundation (**2018 -** )  
Convener, Joint Astronomy Programme, IISc (**2018 -** )

## Fellowships & Awards

**2022:** Collaborative research grant of the Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIPRA)

**2019:** Max Planck India Partner Group grant (Max-Planck-Gesellschaft)

**2017:** Infosys Foundation Young Investigator Award (IISc, Bengaluru)

**2013:** INSA Medal for Young Scientists (Indian National Science Academy)

**2013:** Humboldt Postdoctoral Fellowship (AvH Foundation, Germany)

**2009:** Jansky Postdoctoral Fellowship (NRAO, USA)

## Society Membership

Member of the International Astronomical Union (**IAU**), 2018 onward

Member of the International Union of Radio Science (**URSI**), 2018 onward

Life member, the Astronomical Society of India (**ASI**), 2012 onward

Member of the Square Kilometre Array (**SKA**) Science Working Groups: Our Galaxy, Extragalactic continuum, HI galaxy science, EoR & Cosmic Dawn

## Selected Teaching

- JAP course “Fundamentals of Astrophysics” (2020, ‘22)
- UG course “Intermediate Electromagnetism & Optics” (2020, ‘21, ‘22)
- JAP course “Galaxies and Interstellar Medium” (2018, ‘19)
- JAP course “Astrophysical Techniques” (2017, ‘22)
- UG/MS “Introduction to Astrophysics & Cosmology” (2016)
- UG Physics Lab. and MSc Nuclear Physics Lab. (2015, ‘16)

## Other Experience

- Elected member, Executive Council of the Astronomical Society of India
- Member of the GMRT Time Allocation Committee (2018 onward)
- Institute representative & active member, SKA-India Consortium (SKA-IC)
- Member of the Continuum, the EoR-Cosmology & the HI SWGs of SKA-IC
- Member of the THOR and GLOSTAR survey collaboration
- Supervised/supervising thesis of 10 BS/MS, 5 PhD students (2015 - )
- Member of the SOC, the Astronomical Society of India (2019 - 2022)
- Served as reviewer for MNRAS, ApJ, A&A, PASJ and JoAA
- Member of the SOC and VOC, Workshop & School on 21-cm Cosmology & Reionization, SKA India, 2021
- LOC member, CEFIPRA Astronomy Meeting on SKA-MSE, 2021
- Organizing committee member, SKA session at Vigyan Samagam, 2019
- LOC member, “Frontiers in 21 cm Cosmology”, IIA Kodaikanal, 2018
- SOC member, “Universe after the first 200 million years”, Presidency University Kolkata, 2017

## Selected recent Seminars, Workshops and Conferences

1. Invited talk *"Low radio frequency observations of supernova remnants"* Indo-French CEFIPRA meeting, March **2021**, IIA Bangalore (online)
2. Colloquium *"Fire burn, and cauldron bubble: Probing the Milky Way star formation and the ISM"*, October **2020**, IIT Gandhinagar (online)
3. Invited seminar *"The low radio frequency foreground: thrive on what cosmologists want to avoid"*, May **2020**, RRI Bangalore (online)
4. Seminar *"Diffuse neutral interstellar medium: temperature and turbulence"*, July **2019**, Dr. Karl Remeis-Sternwarte, Bamberg, Germany
5. Invited talk *"Diffuse neutral interstellar medium: temperature and turbulence"* The Metre Wavelength Sky - II, March **2019**, NCRA-TIFR, Pune
6. Seminar *"Diffuse neutral interstellar medium: temperature and turbulence"*, November **2018**, Uppsala University, Uppsala, Sweden
7. Invited talk *"Spectral line observations with the upgraded GMRT"*, 36<sup>th</sup> meeting of the Astronomical Society of India, February **2018**, Hyderabad
8. Invited talk *"CII radiative cooling in the diffuse ISM: lessons from the Milky Way"*, Asia Pacific Regional IAU Meeting, July **2017**, Taipei, Taiwan
9. Invited talk *"The ISM of the Milky Way"*, Science with the uGMRT, June **2016**, NCRA-TIFR, Pune
10. Seminar *"Diffuse neutral interstellar medium: Results from HI studies"*, IPAG/IRAM seminar, April **2015**, Grenoble, France
11. Invited talk *"Diffuse neutral ISM: Surprises from HI studies"*, Astronomy Seminar, May **2014**, Stockholm University, Stockholm, Sweden
12. Oral presentation *"Temperature of the diffuse HI in the Milky Way"*, Phases of the ISM (MPIA Summer Conf.), July **2013**, Heidelberg, Germany
13. Radio and Geoastronomy talk *"Diffuse neutral ISM: Results from HI studies"*, June **2013**, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA
14. Oral presentation *"Turbulent neutral interstellar medium: aspects and implications"*, Network Meeting of the Humboldt Foundation, March **2013**, Hannover, Germany
15. Invited talk *"Radio and X-ray observations of novae"*, 39<sup>th</sup> COSPAR Scientific Assembly, July **2012**, Mysore
16. HEAD Lunch talk *"Small scale structures and turbulence in the atomic ISM"*, December **2011**, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA
17. ITC talk *"Diffuse atomic ISM: multiphase nature and turbulence"*, November **2011**, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA
18. Invited talk *"The multiphase turbulent ISM"*, Astrophysics Seminar, March **2011**, University of New Mexico, Albuquerque, USA

## Selected talks On Education and Public Outreach

1. Invited public talk “Realm of the unseen” in ASI-POEC “Ask An Astronomer”, February **2022** (online)
2. Invited talk “Alexander von Humboldt Foundation: Opportunities for Indians”, December **2020**, IIT Madras (online)
3. Invited talk “Eppur si rota: see the Milky Way rotate”, October **2020**, Pravega Workshop, Indian Institute of Science, Bangalore (online)
4. Invited talk “Attracting and Integrating the Next Generation: Experiences in India”, Annual Meeting of the Alexander von Humboldt Foundation, June **2020**, Germany (online)
5. Invited talks “Calibration and Imaging in radio astronomy”, School on Observing the first billion years of the Universe, January **2020**, IIT Indore
6. Invited talk “How to discover “planetes asteres”? (and win the Nobel Prize!)”, PDA Nobel Lecture, November **2019**, Dept. of Physics IISc
7. Invited talk “Introduction to Radio Astronomy”, Vigyan Samagam SKA Week, September **2019**, VITM Bangalore
8. Panel discussion at the DFG-KSTePs Proposal Writing Workshop, August **2019**, Karnataka Science and Technology Academy, Bangalore
9. Invited talk “Science with the SKA: a giant leap in exploring the magical world”, Vigyan Samagam Inauguration, July **2019**, VITM Bangalore
10. Invited talk “uGMRT and SKA: a quick tour”, AstroComm Meet, February **2019**, Jawaharlal Nehru Planetarium, Bangalore
11. Invited talk “Interstellar: Not quite empty space between the stars”, August **2018**, Kodaikanal Solar Observatory, IIA Kodaikanal
12. Panel discussion “Building international research career”, Humboldt Colloquium, November **2017**, Bangalore
13. Invited talks “Observing the cosmological 21 cm signal”, School on EoR and 21 cm Cosmology, July **2017**, NCRA-TIFR, Pune
14. Invited talk “Multiwavelength astronomy: Shedding new light on the old Universe”, Seminar of the Physics Society, February **2016**, IIT Kharagpur
15. Invited talk “Interstellar: Not quite empty space between the stars”, Astronomy: A Scientific Exploration, February **2016**, S. N. College, Kolkata
16. Invited talk “Research in basic sciences: why bother?”, New Mexico Tech. Summer Science Program, July **2011**, Socorro, NM, USA

## Publications Summary

Refereed publications:

- In refereed journals: 86; as 1<sup>st</sup> author: 20
- In conference proceedings: 6; as 1<sup>st</sup> author: 1
- Total [citation](#): 1626; h-index: 23 (as of April 15, 2023)

Complete list of publication: [ADS](#), [arXiv](#)