Girish Pramod Kulkarni

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Positions

2018–	Reader, Department of Theoretical Physics, Tata Institute of Fundamental Research (TIFR), Mumbai, India
2014–2018	Post-doctoral Research Associate, Institute of Astronomy and Kavli Institute of Cosmology, University of Cambridge, Cambridge, UK
2011–2014	Post-doctoral researcher, Max Planck Institute for Astronomy (MPIA), Heidelberg, Germany

Short-term and part-time positions

2019–	Head, Partner Group of the Max Planck Institute of Astronomy (MPIA) Tata Institute of Fundamental Research (TIFR), Mumbai, India
2010–11	Fulbright-Nehru Doctoral and Professional Research Fellow Institute of Theory and Computation Harvard University, Cambridge, Massachusetts, USA
2000–04	Undergraduate Research Associate Saha Institute of Nuclear Physics (SINP), Kolkata, India

Research Interests

Cosmology, intergalactic medium, galaxy formation, cosmic reionization, quasar absorption lines, first stars, high-redshift galaxies, supermassive black holes, active galactic nuclei

Education

2007–2012	Harish-Chandra Research Institute (HRI), Allahabad, India • PhD Physics, supervisor: Prof. Jasjeet S. Bagla

• Thesis title: 'Evolution of Galaxies and the Intergalactic Medium at High Redshift'

2004–2007 Harish-Chandra Research Institute (HRI), Allahabad, India
• MSc Physics; First class with Distinction

2001–2004 Fergusson College Pune, University of Pune, Pune, India
• BSc Physics; First class with Distinction

Honours

2019–2022 Partnership of the Max Planck Institute of Astronomy (MPIA)
Tata Institute of Fundamental Research (TIFR), Mumbai, India

2016–2018 Post-doctoral Membership, Clare Hall,
University of Cambridge, Cambridge, UK

2013 "Young Astronomer of the Year" award
Astronomical Society of India

2010–2011 Fulbright-Nehru Doctoral and Professional Research Fellowship
Institute of Theory and Computation
Harvard University, Cambridge, Massachusetts

2000–2004 KVPY National Science Fellowship
Indian Institute of Science, Bengaluru, India

2000–2004 Undergraduate Research Associate
Saha Institute of Nuclear Physics (SINP), Kolkata, India

Selected Invited and Contributed Talks since 2019

Over 70 invited and contributed talks in last ten years. Full list available upon request.

1. 39th ASI Meeting, 'Computational Astrophysics: An Emerging Avenue for Indian Astronomy Community' workshop, February 2021
2. Ringberg Castle, Germany, 'Black Holes and Galaxies at the Edge of the Universe' conference, March 2020
3. IISER Tirupati, India, 38th Meeting of the Astronomical Society of India (ASI), February 2020
4. IIT Indore, India, 'The First Billion Years of the Universe' conference, January 2020
5. TIFR, India, 'Science with Subaru: An Indian Perspective' conference, December 2019

Research Supervision

2020– TIFR PhD student Shikhar Mittal
• Area of research: Thermal state of the Universe at Cosmic Dawn

2020– TIFR PhD student Nabendu Khan
• Area of research: The post-reionization Lyman-α forest

2020– TIFR PhD student Sindhu Sri Sravya
• Area of research: Black hole growth and quasar proximity zones

2019–22 TIFR postdoc Janakee Raste
• Area of research: hydrogen 21-cm signal from the epoch of reionization

2019–20 TIFR MSc student Yash Sharma
- Project title: 'Turbulence in the Intergalactic Medium'

2019–20 TIFR MSc student Mohit Saharan
- Project title: 'Weak gravitational lensing of $z \sim 6$ C II intensity maps'

2019–20 University of Mumbai MSc student Sreeta Roy
- Project title: 'Matched filters for detecting neutral hydrogen islands in 21-cm maps'

2017–18 Cambridge University MAst Astrophysics student Joris Witstok
- Project title: 'The intergalactic medium in Lyman-α emission'

2016–17 Cambridge University Natural Sciences Tripos Part III student Sebastian Dumitru
- Project title: 'Intensity Mapping in the high-redshift universe'

2016 Cambridge University summer research project student Fed Tomlinson
- Project title: 'Thermal emission from shock-heated gas in the high-redshift universe'

Conferences Organized

2019 'Science with Subaru: An Indian Perspective', TIFR, Mumbai, India
2014 'Intergalactic Matters', MPIA, Heidelberg, Germany
2010 'Cosmological Reionization', HRI, Allahabad, India

Service

- Referee for *Nature, Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, Advances in Astronomy, Research in Astronomy and Astrophysics, Physics of the Dark Universe*
- PhD examiner for Indian Institute of Science, Bengaluru, India (2019) and Swinburne University, Melbourne, Australia (2019)
- Selection panel member for Fulbright-Nehru Fellowships 2020
- Referee for funding proposals for the Science and Technology Facilities Council (STFC), UK
- Internal assessor for Institute of Astronomy Cambridge PhD Students' progress review
- Referee for funding proposals for the Netherlands Organisation for Scientific Research (NWO)
- Referee for observational proposals to the Giant Metrewave Radio Telescope (GMRT), India
- Coordinator for the Visiting Students' Research Programme (VSRP) in the Department of Theoretical Physics, TIFR, since 2019.
- Member of the Subject Board of Physics (SBP) in TIFR.
- Member of the committee overseeing the TIFR Computer Centre and Communication Facility (CCCF).

Publications

Available upon request.

Grants

Available upon request.