

# RRI PhD Programme 2024

## Student Requirement

Sl. No.	Name of the Faculty	Designation	No. of Students on Rolls	Student requirement for 2024		Probable area of research
				Theory	Experiment	
<b>Astronomy &amp; Astrophysics (A&amp;A) Group: Requirement is 2</b>						
1	Mayuri S Rao	Associate Professor-I	1		1	Instrumentation and Analysis of RF experiments for cosmology
2	Saurabh Singh	Associate Professor	1		1	Precision Cosmology
<b>Light &amp; Matter Physics (LAMP) Group: Requirement is 7</b>						
3	Urbasi Sinha	Professor-I	1		3	Photonic quantum information, quantum computing, quantum imaging and quantum communications
4	Sadiq A Rangwala	Professor-II	4		1	Ion Trapping with cold neutral atoms, to study ion atom interactions.
5	Saptarishi Chaudhuri	Associate Professor-II	6		3	Quantum Mixtures
<b>Soft Condensed Matter Physics (SCM) Group: Requirement is 11</b>						
6	Arun Roy	Professor-I	1		2	1. Electromechanical properties of soft matter 2. Self-organised structure in liquid crystals
7	Gautam V. Soni	Associate Professor-II	4		2	1. Mechanical nature of biological cells 2. Force measurements in molecular interactions
8	Pramod Pullarkat	Professor-I	4		2	1. Active & Passive mechanical responses of axons 2. Optical Tweezer studies on biological systems

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<b>Soft Condensed Matter Physics (SCM) Group: Requirement is 11</b>						
9	Ranjini Bandyopadhyay	Professor-II	4		2	Active fluidisation, granular segregation
10	Sayantan Majumdar	Associate Professor-II	4		1	Shear thickening and jamming in dense suspensions
11	Rituparno Mondal	Associate Professor-I	0	2		1. Exploring the physics of odd granular liquid, made of active frictional spinner at high density 2. Investigating rheological response and aging in a non-reciprocal solid where the underlying pairwise (effective) interactions break Newton's third law
<b>Theoretical Physics (TP) Group: Requirement is 8</b>						
12	Sanjib Sabhapandit	Professor-II	1	1		Non equilibrium Stat mech and Stochastic Processes
13	Dibyendu Roy	Associate Professor-II	3	2		Quantum Chaos, Topological Systems
14	Shovan Dutta	Assistant Professor	0	2		Collective quantum phenomena
15	Sumati Surya	Professor-II	0	2		Discrete Quantum Gravity
16	Kartik Prabhu	Associate Professor-II	0	1		QFT and gravity

**Number of Vacant PhD Positions for Admissions-2024 :**

<b>GROUP</b>	<b>THEORY</b>	<b>EXPERIMENTAL</b>
<b>A &amp; A</b>	0	2
<b>LAMP</b>	0	7
<b>SCM</b>	2	9
<b>TP</b>	8	0
<b>Total</b>	10	18
<b>No. of Total Vacancies from both the streams (10+18)</b>		<b>28</b>