

LIST OF PROJECTS FOR 2023-2024-II SEMESTER

SI No.	Name	email	Title	Program	Remarks
1	Adhip Agarwala	adhip	Topological phases of matter	BS(555/556)	Open to all student
2	Aditya Kelkar	akelkar	Collision experiments with 1.7MV tandetron accelerator	BS, MS, MSc, MSPD	Open to all student
3	Amit Kumar Agarwal	amitag	Transport and optical properties of quantum materials	BS, MS, MSc, MSPD	Open to all student
4	Anjan Kumar Gupta	anjankg	Condensed Matter Experiment	MS-MSc(563/565)	Continuing student
5	Arijit Kundu	kundua	Topological systems; Periodically driven systems; Quantum geometry	MS-MSc(563/565)	Continuing student
6	Arjun Bagchi	abagchi	Conformal field theory and string theory	MS-MSc(563/565)	Continuing student
7	Chanchal Sow	chanchal	Single crystal growth and magnetotransport studies of novel quantum materials	MS-MSc(563/565)	Continuing student
8	Chandrima Banerjee	cbanerjee	Spin wave propagation Dynamics in Graded Index Magnonic System:	MSPD(501/502)	Open to all student
9	Debtosh Chowdhury	debtoshc	Cosmology	MSPD(596/598 /696/698)	Continuing student
10	Dipankar Chakrabarti	dipankar	Machine learning in lattice gauge theory	BS, MS, MSc, MSPD	Open to all student
11	Diptarka Das	didas	Chaotic scattering and strings	MS-MSc(563/565)	Open to all student
12	Gopal Hazra	hazra	Exoplanet, Magnetic field in the Sun and stars	BS(555/556)	Open to all student
13	Harshawardhan Wanare	hwanare	Microscopy based on Polarisation	BS, MS, MSc, MSPD	Open to all student
14	Harshawardhan Wanare	hwanare	lensless imaging through optical fibers	BS, MS, MSc, MSPD	Open to all student
15	Joydeep Chakraborty	joydeep	Mathematical applications in effective field theory	MS-MSc(563/565)	Open to all student
16	Kaushik Bhattacharya	kaushikb	Chamelion mechanism in non-minimally coupled theories of gravity	MSPD(596/598/ 696/698)	Open to all student
17	Koushik Pal	koushik	Quantum condensed matter theory and simulation of materials	BS, MS, MSc, MSPD	Open to all student
18	Krishnacharya	kcharya	Soft Matter Physics	MS-MSc(563/565)	Open to all student
19	Mahendra K Verma	mkv	Magnetohydrodynamic turbulence	BS, MS, MSc, MSPD	Open to all student
20	Manas Khan	mkhan	Nonequilibrium fluctuations in soft aging glasses and biological systems, Active Brownian dynamics	BS, MS, MSc, MSPD	Open to all student
21	Navaneeth Poonthottathil	navaneeth	Experimental Studies of Neutrino properties	BS, MS, MSc, MSPD	Open to all student
22	Nilay Kundu	nilayhep	Aspects of deSitter space	MS-MSc(563/565)	Continuing student
23	Rajeev Gupta	guptaraj	Structural and magnetic investigations on oxides	BS, MS, MSc, MSPD	Open to all student
24	Rohit Medwal	rmedwal	Spin Based neuromorphic computing	MSPD(501/502)	Open to all student
25	Sabyasachi Chakraborty	sabyac	Renormalization group effects in First Order Phase Transition	BS, MS, MSc, MSPD	Student is already selected
26	Sagar Chakraborty	sagarc	Evolutionary Game Dynamics	BS, MS, MSc, MSPD	Continuing student
27	Sapam Ranjita Chanu	sranjita	Quantum Technology and Simulation	MSPD(501/502)	Open to all student
28	Satyajit Banerjee	satyajit	Condensed matter (I already have one DD and one MSc student who are doing a two semester project with me and they will continue next sem also)	MS-MSc(563/565)	Student is already selected

29	Sivasurender Chandran	schandran	Collective Dynamics in complex Fluids	MSPD(501/502)	Open to all student
30	Soumik Mukhopadhyay	soumikm	Spin transport; Low dimensional magnetism; Topological systems; Magnetoelectric effect; Strong correlation and topology	MS-MSc(563/565)	Open to all student
31	Sudeep Bhattacharjee	sudeepb	Experimental Plasma Physics and Ion Beam Physics	BS, MS, MSc, MSPD	Open to all student
32	Sudipta Dubey	sudiptad	2D materials	MSPD(501/502)	Open to all student
33	Sudeep Kumar Ghosh	skghosh	Topological Superconductivity, Non-equilibrium response of superconductors and Transport signatures of phonon topology	MS, MSc, MSPD	Open to all student
34	Supratik Banerjee	sbanerjee	Turbulence in solar wind (mainly in-situ data analysis) Particle acceleration in astrophysics Turbulence in neutron stars	BS, MS, MSc, MSPD	Open to all student
35	Swagata Mukherjee	swagata	Learning the tools to analyze proton-proton collision data from the CMS experiment at the CERN-LHC	BS, MS, MSc, MSPD	Open to all student
36	Tarakanath Mandal	tarakanath	Molecular Simulations of Soft Matter Systems	MS-MSc(563/565)	Open to all student
37	Tarun Kanti Ghosh	tkghosh	(1) Adiabatic gauge potential in SU(3) systems (for 4th year UG students, dual degree and MSc students). (2) Role of Berry phase in wave-packet propagation (for 4th year UG students, dual degree and MSc students).	MSPD(596/598/696/698)	Open to all student
38	Venkatajayasurya Yallapragada	jayasurya	1. Analyzing multichannel photon correlation data 2. Computing the optical properties of birefringent photonic structures	MSPD(596/598/696/698)	Continuing student
39	Vijaya R	rvijaya	Multispectral stealth for defense application	MSPD(501/502)	Open to all student
40	Zakir Hossain	zakir	Superconductivity, magnetism, thin film	MSPD(501/502)	Open to all student