

PHY 300 / PHY 500 – Experimental Physics Lab II

Spring 2022

Lab Group list

Group No.	Group members	Roll. No.
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5	Bismah Rizwan	23100029
	Azka Rafay Khan	23100077
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6	Sajid Hussain	20120010
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	Muhammad Nabeel Riaz	23100141
7	Mahad Naveed	23100215
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8	Muhammad Abdullah Mutahar	23100113
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10	Ahmed Asadullah	22100162
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PHYSLAB 300/500

Lab schedule for the weeks 7-14 of experimental work (March-April 2022)

Group no. /Date	04/03/2022	11/03/2022	18/03/2022	25/03/2022	01/04/2022	08/04/2022	15/04/2022	22/04/2022	Theme
1	Single Photon quantum (Dr. Sabieh Anwar/Bilal Hyder Shah)								Quantum Optics
2	Ultrafast Optics (Dr. Tayyab Imran)								Optics
3	Electrical conductivity of a semiconductor (2.10B)	Electrical Properties of ferroelectric materials (2.13)			Will be assigned based on performance			Materials and Condensed matter	
4	Temperature oscillations in a metal: Probing aspects of Fourier analysis with PhysLogger (2.3B)	Tracking Brownian motion through video microscopy (2.11)	Chaos and Non-Linear Physics (2.5)		Will be assigned based on performance			Thermal Physics, Video tracking chaos, non-linear	
5	Introduction to the Lock-in Amplifier (2.2)	Faraday's Effect (2.6)	Arterial oscillations in blood pressure measurement (1.32)		Will be assigned based on performance			Measurements/ Physiology	
6	Electrical signals propagating in a transmission line (2.25)	Temperature oscillations in a metal: Probing aspects of Fourier analysis with PhysLogger (2.3B)	Tracking Brownian motion through video microscopy (2.11)		Will be assigned based on performance			Electromagnetism /Thermal Physics/Video tracking	
7	Video Tracking								Smart Physics
8	Surface Plasmon Resonance (2.15)								Optics

9	Michelson interferometry (2.9)	Mach-Zehnder Interferometry (2.21)		Scanning Fabry-Perot Interferometer (3.5)	Tuning a Laser Diode (3.6)	Diffraction from a Grating (3.8)	Optics
10	Fourier Analysis of Light (3.4)	Investigating Polarization of Light through Jones Calculus (3.3)	Polarization Peanuts with Fourier Analysis (3.7)	Michelson Interferometry (2.9)	Mach-Zehnder Interferometry (2.21)		Optics