

Dhiraj Hiralal Gupta

Education

- Bachelor of Science in Physics (2016-2019)

JVM'S Mehta College, Mumbai University,

CGPI: 7.20/10

- Master of Science in Physics (Material Science) (2019-2021)

The Institute of Science, Dr. Homi Bhabha State University

Thesis:- Theoretical Review Of Photocatalytic Compound and

Application

CGPI: 9.29/10

Work Experience

* Adjunct Professor (Jan 2023 - Mar 2023)

THE INSTITUTE OF SCIENCE, Dr. HOMI BHABHA UNIVERSITY, MUMBAI

- *Assistant Teacher
 - ARYA GURUKUL INTERNATIONAL Jr. COLLEGE, Jul 2022 - Apr 2023
 - MAZIDUN HIGH SCHOOL AND Jr. COLLEGE, Oct 2021 – Apr 2022

Research experience

Junior Research Fellow at Tata Institute of Fundamental Research (TIFR) (Aug 2023 -Jan 2023)

- -Sputtered thin films of different materials on flexible and rigid substrates.
- -Involved in developing a custom-built substrate rotation mechanism for a sputtering system.
- -Characterization of Thin Film with techniques of Atomic Force Microscopy (AFM), Scanning Electron microscope (SEM), Profilometry, and Ellipsometry.

INAF-BRERA:

- Optical Bench Setup & Alignment
- LASER Optics

Publication

Relativistic theory to Compton effect for spectroscopic detector

[https://doi.org/10.1016/j.nima.2022.166656].





INAF - Osservatorio Astronomico di Brera, Milan (gOLeM)



PhD Research Topic: *Innovative holographic optical elements for modern optical instrumentation.*

Supervisor: Dr. Andrea Bianco

Research Description:

Laser Source

Spatial

Filter

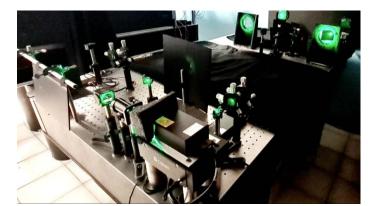
1. Developing Volume Holographic Optical Elements (VHOEs).

2. Enhancing and simplifying the performance of optical systems through VHOEs

3.VHOE Developments:

Volume Phase Holographic Gratings (VPHGs) & Volume Phase Holographic Diffuser

Focusing Polymer aperture



Beam

Collimator

Master Diffuser

≈900mm

