



## Confluentia 2024 - Second In-house Symposium

Venue: Raman Hall, Physics Department, NITC

Date: 23/03/2024

### Programme Schedule

Time	Programme	
09:00 AM - 09:30 AM	Registration	
09:30 AM - 10:00 AM	Inauguration	
10:00 AM - 10:30 AM	High Tea	
10:30 AM - 11:10 AM	<b>Keynote Address</b> - Prof. Aji A. Anappara <b>Title:</b> Self-powered, broad-band photodetectors on paper substrates	
11:10 AM - 12:10 PM	<b>Session 1</b>	
	Speaker	Title
11:10 AM - 11:30 AM	Ms. Athulya K. S.	Tamm Plasmon Mediated Tunable Absorption Switching in Atomically Precise Pt <sub>17</sub> Nanoclusters for Nonlinear Photonic Applications
11:30 AM - 11:50 AM	Ms. Harsha Haridas E. S.	Holygrass "Darbha" derived multifunctional carbon dots incorporated biodegradable food packaging films
11:50 AM - 12:10 PM	Ms. Ansha S. Nair	On the quantization of FLPR model

12:10 PM - 02:00 PM	Lunch + Poster Session	
02:00 PM - 03:30 PM	<b>Session 2</b>	
	<b>Speaker</b>	<b>Title</b>
02:00 PM - 02:30 PM	Dr. Sreeraj T. P	Quantum Decoherence and equilibration of Quantum systems
02:30 PM - 02:50 PM	Mr. Anantha Srinivasan L.	Entanglement entropy in gauge theories
02:50 PM - 03:10 PM	Ms. Anju Rajan	Janus MXenes as efficient catalysts for sustainable Ammonia production
03:10 PM - 03:30 PM	Ms. Sneha Mary Biju / Mr. Gokul S.	Why do we hype about hyperbolic metasurfaces?
03:30 PM - 04:00 PM	Tea + Poster Session	
04:00 PM - 05:20 PM	<b>Session 3</b>	
	<b>Speaker</b>	<b>Title</b>
04:00 PM - 04:20 PM	Mr. Adarsh S.	Lattice Formulation of $GL(4, \mathbb{R})$ Gravity
04:20 PM - 04:40 PM	Ms. Sreedevi Mohan S.	Bridging Trails in Reflectionless Potential Deformation: Two Paths and One Horizon
04:40 PM - 05:00 PM	Mr. Aravind B.	Leveraging Light: Precision Control and Navigation of Micro-Particles using Metasurfaces
05:00 PM - 05:20 PM	Mr. Abijith K. Reju	Talbot Metasurfaces for Beam-Focusing Applications
05:20 PM - 05:45 PM	Valedictory Function, Feedback	

## List of Posters

Sl. No.	Presenter's Name	Title
1	Ms. Christy Antony P.	Visible Light Induced Depolymerisation of Polyethylene Terephthalate
2	Mr. Muhammed Fasil P.	Enhanced Catalytic Activity in Nb-Doped TiO <sub>2</sub> for Electrochemical Oxygen Reduction Reaction
3	Ms. Hasana Jahan E. K.	Cavity-Assisted Fluorescence Enhancement of Graphene Quantum Dot Nanostructures
4	Ms. Athira V.	The Electronic Structure Calculations of Quaternary Heusler Alloys FeRhCrZ (Z= Ge, Si, Sn)
5	Mr. Nihal Muhammed Habeeb	Opto-thermofluidic Metallic Nanoparticle Patterning and its Application in Particle Assembly
6	Mr. Sachin Raj Kapoor Kanaujiya	Quasi Periodic Pulsation due to Shock Wave in CME
7	Ms. Aliya Thasnim	Study of Heavy Ion Fusion Evaporation Process in Mass 220 Region
8	Mr. Dominic Savio	Investigating the Entrance Channel Effect in Fission Dynamics of <sup>216</sup> Ra Compound Nucleus Via Pre-scission Neutron Multiplicities
9	Mr. V. Shanto, Mr. B. Aravind	Realizing Ultra-Thin Reflection Modulators Through the Phenomena of Asymmetric Reflection of Light
10	Mr. Abhishek L. P.	Surface Plasmon Polariton (SPP) Resonances Using Graphene for Terahertz Applications
11	Mr. C. Abdul Varis, Mr. Amogh Suseelan, Mr. P. V. Arjun	Microwave Energy Harvesting Metamaterial Absorber at Mobile Phone Communication Waveband (2.44 GHz)
12	Mr. Akshay S Nair, Mr. Adithya Danaj	Enhanced Dielectric Sensing Using Chiral Metamaterial: A Cross-Polarization Approach
13	Ms. Salma Jose	Design and Development of Spectroscopic Instruments for Atmospheric Radiative Forcing Monitoring
14	Mr. Abhijith A. S., Ms. Shilpa S.	Zero-Bias Differential Photodetectors on Paper Substrate
15	Ms. C. Sidfa	A Comparative Analysis of Aerosol Optical Depth between Observations and CMIP6 Models Across Diverse Indian Regions