

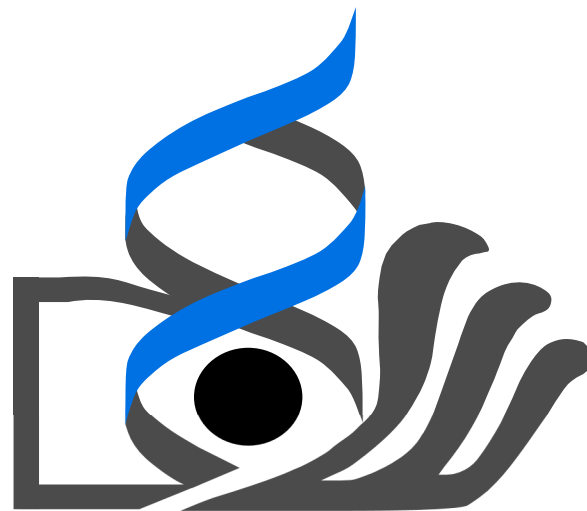
**IP**  
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**- 2023**

*Rapid Talks*

*on*

**Physics Trends @ IISER Kolkata**



**IISER KOLKATA**

**28<sup>th</sup> - 29<sup>th</sup> June 2023**



*Asima Chatterjee Lecture Hall,  
2<sup>nd</sup> Floor, TRC Building, IISER Kolkata*








**OPTICA** | **Advancing Optics and Photonics Worldwide**


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OSA**

\*\*\* Programme Schedule \*\*\*

Sl. No	Date/Time	Schedule	Event
<b>Day 1 : 28<sup>th</sup> June 2023</b>			
1.	09.00 – 10.00	<b>Registration</b>	<b>Tea/Coffee</b> 
2.	10.00 – 10.10	Welcome note by <b>Satyabrata Raj</b> , DoRD, NCHPS, & DPS	
3.	10.10 – 10.30	Opening Address / Tweets by <b>Ashwani Kumar Tiwari</b> , DoIRO & DCS <b>Manoj Kumar Jaiswal</b> , Chair DES <b>Chilla Malla Reddy</b> , Chair DCS <b>Goutam Dev Mukherjee</b> , NCHPS & DPS <b>Nirmalya Ghosh</b> , OPTICA, CESSI, & DPS <b>Dibyendu Nandi</b> , CESSI, & DPS	
4.	<b>Session Chair: Goutam Dev Mukherjee</b> , NCHPS & DPS		
5.	10.30 – 10.45	Talk-1	<b>Anjan Kumar N M</b> , DPS Title: <i>Carrier trapping dynamics in CoV<sub>2</sub>O<sub>6</sub> using ultrafast non-degenerate pump probe spectroscopy.</i>
6.	10.45 – 11.00	Talk-2	<b>Raktima Basu</b> , DPS Title: <i>Strain Induced MIT in 1D NdNiO<sub>3</sub>.</i>
7.	11.00 – 11.15	Talk-3	<b>Debdatta Banerjee</b> , DES Title: <i>Jarosite: A possible indicator for the history of temperature spikes on Martian surface.</i>
8.	11.15 – 11.30	Talk-4	<b>Arkayan Laha</b> , DPS Title: <i>Spatiotemporal dynamics in cell shape oscillations.</i>
9.	11.30 – 12.00		<b>Tea/Coffee Break</b>
10.	<b>Session Chair: Nirmalya Ghosh</b> , OPTICA, CESSI, & DPS		
11.	12.00 – 12.15	Talk-5	<b>Souvick Chakraborty</b> , DPS Title: <i>Valleytronics and Rashba Effect in Monolayer Transition Metal Dichalcogenides.</i>
12.	12.15 – 12.30	Talk-6	<b>Saptarshi Saha</b> , DPS Title: <i>Discrete time-crystalline phase in dissipative dipolar systems.</i>
13.	12.30 – 12.45	Talk-7	<b>Debabrata Samanta</b> , DPS Title: <i>Pressure Induced Emission Enhancement and Bandgap Narrowing in Cs<sub>3</sub>Sb<sub>2</sub>Br<sub>9</sub>.</i>
14.	12.45 – 13.00	Talk-8	<b>Rabindranath Mondal</b> , DES Title: <i>Water in the deep mantle: an ab initio study.</i>
15.	13.00 – 13.15	Talk-9	<b>Abhirup Mukherjee</b> , DPS Title: <i>The Kondo effect and its breakdown: interplay of fluctuations in zero</i>

			<i>dimension.</i>
16.	13.15 – 13.30	Talk-10	<b>Sakshi Gupta, DPS</b> Title: <i>Of explanatory atmospheres, magnetism and stellar winds and why planets may have wings.</i>
17.	13.30 – 15.00		<b>Lunch Break</b>
18.	<b>Session Chair: Chiranjib Mitra, DPS</b>		
19.	15.00 – 15.15	Talk-11	<b>Rituparna Ghosh, DPS</b> Title: <i>Some new observations for the Georgi-Machacek scenario with triplet Higgs Scalars.</i>
20.	15.15 – 15.30	Talk-12	<b>Chitradeep Saha, CESSI</b> Title: <i>On the origin of super modulation in the Sun's activity cycle.</i>
21.	15.30 – 15.45	Talk-13	<b>Soumya Mukherjee, DPS</b> Title: <i>Investigation of conductivity and shielding efficiency of the free-standing PVA-GO-Ag composite thin films in terahertz regime using time domain terahertz spectroscopy.</i>
22.	15.45 – 16.00	Talk-14	<b>Jeeban Kumar Nayak, DPS</b> Title: <i>Spin-direction-spin coupling of quasiguided modes in plasmonic crystals.</i>
23.	16.00 – 16.15	Talk-15	<b>Amir Subba, DPS</b> Title: <i>Role of polarization and spin correlation to probe new physics.</i>
24.	16.15 – 16.30	Talk-16	<b>Tousik Samui, DPS</b> Title: <i>Lepton Flavour Violating Signals at the Future Electron-Proton Colliders.</i>
23.	16.30 – 17.00		<b>High Tea Break</b>
24.	17.00 – 19.00	<b>Felicitation of Prof. Prasanta K. Panigrahi, Director, DPS, IISER Kolkata</b> <b>Coordinator: Ritesh K. Singh, DPS</b>	
<b>Day 2 : 2<sup>nd</sup> March 2020</b>			
25.	09.30 – 10.00	<b>Tea / Coffee</b> 	
26.	<b>Session Chair: Raktima Basu, DPS</b>		
27.	10.00 – 10.15	Talk-17	<b>Chiranjit Mahato, DPS</b> Title: <i>Pinning of Vortices by impurities in Unconventional superconductors.</i>
28.	10.15 – 10.30	Talk-18	<b>Tribikram Choudhury, DPS</b> Title: <i>Thin film for photonics applications.</i>
29.	10.30 – 10.45	Talk-19	<b>Indranil Mekherjee, DPS</b> Title: <i>Nonexistence of motility induced phase separation transition in one dimension.</i>

30.	10.45 – 11.00	Talk-20	<b>Gourab Das, DPS</b> Title: <i>Stern-Gerlach Experiment in Open Quantum System.</i>
31.	11.00 – 11.15	Talk-21	<b>Sampurna Karmakar, DPS</b> Title: <i>AC response of Chklovskii-Halperin quantum Hall step-up transformer.</i>
32.	11.15 – 11.30	Talk-22	<b>Subhajit Pal, DPS</b> Title: <i>Direct detection of odd-frequency pairing in a topological Josephson junction.</i>
33.	11.30 – 12.00		<b>Tea/Coffee Break</b>
34.	<b>Session Chair: Tribikram Choudhury, DPS</b>		
35.	12.00 – 12.15	Talk-23	<b>Sourav Paul, DPS</b> Title: <i>Study of Leggett-Garg Inequality (LGI) in quantum systems with exponential sensitivity.</i>
36.	12.15 – 12.30	Talk-24	<b>Aabir Mukhopadhyay, DPS</b> Title: <i>Thermal bias induced charge current in a Josephson junction: from ballistic to disordered.</i>
37.	12.30 – 12.45	Talk-25	<b>Subhadeep Chakraborty, DPS</b> Title: <i>Spin-textured Volkov-Pankratov states and their tunnel magnetoresistance response.</i>
38.	12.45 – 13.00	Talk-26	<b>Biswajit Das, DPS</b> Title: <i>Enhancement in irreversibility of active processes in viscoelastic bath.</i>
39.	13.00 – 13.15	Talk-27	<b>Souvik Roy, CESSI</b> Title: <i>A data-driven magnetohydrodynamical approach to simulate the dynamics of CME-forced planetary magnetospheres and predict the geomagnetic impacts.</i>
40.	13.15 – 13.30	Talk-28	<b>Niladri Modak, DPS</b> Title: <i>Polarimetric analysis of transverse optical beam shift and connection with PT symmetry.</i>
41.	13.30 – 15.00		<b>Lunch Break</b>
42.	<b>Session Chair: Subhajit Pal, DPS</b>		
43.	15.00 – 15.15	Talk-29	<b>Jami Prashanti, DPS</b> Title: <i>The role of disorder on phases across two-dimensional thermal melting.</i>
44.	15.00 – 15.30	Talk-30	<b>Nidhi Tiwari, DCS</b> Title: <i>Enhancement Effect of 2D Confinement For CO Oxidation on Pt(111) at Low Temperatures.</i>
45.	15.30 – 15.45	Talk-31	<b>Prathibha Chandrashekar, DES</b> Title: <i>Post Spinel Phase Transition: A First Principles Study.</i>

46.	15.45 – 16.00	Talk-32	<b>Amulya Ratnakar, DPS</b> Title: <i>TDOS in Luttinger liquid: Role of Interaction.</i>
47.	<b>Session Chair: Tousik Samui, DPS</b>		
48.	16.00 – 16.15	Talk-33	<b>Shyamal Guchhait, DPS</b> Title: <i>Influence of the coherence of spectral domain interference of Fano resonance on the degree of polarization of light.</i>
48.	16.15 – 16.30	Talk-34	<b>Mrinmay Sahu, DPS</b> Title: <i>Pressure induced ferroelectric-like Semimetallic state in Eu-doped BaTiO<sub>3</sub>.</i>
48.	16.30 – 16.45	Talk-35	<b>Ram Nandan Kumar, DPS</b> Title: <i>Helicity conversion on tight focusing of circularly polarized inhomogeneous and structured beams in optical tweezers.</i>
48.	16.45 – 17.00	Talk-36	<b>Arpan Chatterjee, DPS</b> Title: <i>Influence of the strongly driven dynamics of an open quantum system on the Resonance Fluorescence Spectrum.</i>
48.			Concluding Remark by <b>Satyabrata Raj, DPS.</b>
32.	17.00 – 17.30		<b>Tea/Coffee Break</b>

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