

**Emerging trends in Quantum Condensed Matter Physics**  
**(EQCMP@2024)**  
**Schedule**

**Day 1 (21/08/2024)**

8:00 am to 9:00 am	<b>Registration (Venue: IoP Block-A)</b>
9:00 am to 9:30 am	<b>Welcome Address:</b> Prof. Karuna Kar Nanda, Director, IOP, Bhubaneswar

**Day 1 (21/08/2024): Session I**

	<b>Chairperson: Anamitra Mukherjee</b>
9:30 am to 10:00 am	<b>Ajit C. Balram (IMSc, Chennai)</b> (Title: Microscopic Model for Fractional Quantum Hall Nematics)
10:00 am to 10:30 am	<b>SK Firoz Islam (Jamia Milia Islamia (A central University), Delhi)</b> (Title: Preformed Cooper pairing and LOFF states in twisted bilayer graphene)
10:30 am to 11:00 am	<b>Tapan Mishra (NISER, Bhubaneswar)</b> (Title: Signatures of non-trivial doublon formation using a quantum computer)
11:00 am to 11:30 am	<b>Tea/Coffee Break</b>
	<b>Chairperson: Rajesh Narayanan</b>
11:30 am to 12:00 pm	<b>Tanmoy Das (IISc, Bangalore)</b> (Title: Superposition, Fragmentation and Spin Liquid in Classical Spins)
12:00 pm to 12:30 pm	<b>Aftab Alam (IIT, Bombay)</b> (Title: GdAlSi: A potential candidate for altermagnetic topological Weyl semimetal)
12:30 pm to 1:00 pm	<b>Manoranjan Kumar (SNBNCBS, Kolkata)</b> (Title: Frustrated spin-1/2 model on Kagome strip chain: An analogy to Kugel-Khomskii model)
1:00 pm to 3:00 pm	<b>LUNCH BREAK</b>

**Day 1 (21/08/2024): Session II**

	<b>Chairperson: Tapan Mishra</b>
3:00 pm to 3:30 pm	<b>Ranjan Modak (IIT, Tirupati)</b> (Title: Ergodic and mixing quantum channels: From two-qubit to many-body quantum systems)
3:30 pm to 4:00 pm	<b>Sourin Das (IISER, Kolkata)</b> (Title: Parafermion Josephson effect and its Robustness against Edge reconstruction)
4:00 pm to 4:30 pm	<b>Victor Mukherjee (IISER, Berhampur)</b> (Title: Collective effects enhance quantum engines)

4:30 pm to 5:00 pm	<b>Tea/Coffee Break</b>
	<b>Chairperson: Sourin Das</b>
5:00 pm to 5:30 pm	<b>Suhas Gangadharaiah (IISER, Bhopal)</b> (Title: The effect of noise for a driven quantum spin-chain)
5:30 pm to 6:00 pm	<b>Tanay Nag (BITS, Hyderabad)</b> (Title: Anomaly in dynamical quantum phase transition in non-Hermitian systems )
6:00 pm to 6:30 pm	<b>Malay Kumar Bandyopadhyay (IIT, Bhubaneswar)</b> (Title: Optical pumping controls anisotropic response in the semi-Dirac system )
7:30 pm to 10:30 pm	<b>CONFERENCE DINNER AT HOTEL SURYANSH</b>

**Day 2 (22/08/2024): Session I**

	<b>Chairperson: Soumya Bera</b>
9:30 am to 10:00 am	<b>Arijit Kundu (IIT, Kanpur)</b> (Title: Transport of small twist angle bilayer graphene)
10:00 am to 10:30 am	<b>G. J. Sreejith (IISER, Pune)</b> (Title: Eliashberg theory for dynamical screening in bilayer exciton condensation)
10:30 am to 11:00 am	<b>Awadhesh Narayan (IISc, Bangalore)</b> (Title: Non-Linear Hall Effect in Flatlands and Chiral Crystals )
11:00 am to 11:30 am	<b>Tea/Coffee Break</b>
	<b>Chairperson: G. J. Sreejith</b>
11:30 am to 12:00 pm	<b>Kush Saha (NISER, Bhubaneswar)</b> (Title: Probing Fermi Surface Topology through Electromagnetic Response in Anisotropic Dirac Materials)
12:00 pm to 12:30 pm	<b>Soumya Bera (IISER, Pune)</b> (Title: Metal-insulator transition in bond-disordered lattices in two dimensions )
12:30 pm to 1:00 pm	<b>Sudeshna Sen (IIT, Dhanbad)</b> (Title: Many-body quantum interference in single molecule transistors and its inverse design)
1:00 pm to 3:00 pm	<b>LUNCH BREAK</b>

**Day 2 (22/08/2024): Session II**

	<b>Chairperson: Manoranjan Kumar</b>
3:00 pm to 3:30 pm	<b>Debasish Banerjee (SINP, Kolkata)</b> (Title: Meron Cluster Algorithms for Simulating Fermions and Gauge Fields)
3:30 pm to 4:00 pm	<b>Kalpataru Pradhan (SINP, Kolkata)</b> (Title: Antiferromagnetic/Paramagnetic Superlattices: Induced Magnetism in Paramagnetic Layers)
4:00 pm to 4:30 pm	<b>Tea/Coffee Break</b>
4:30 pm to 6:30 pm	<b>POSTER SESSION – I (P-1 to P-18)</b>
7:30 pm to 10:00 pm	<b>DINNER</b>

**Day 3 (23/08/2024): Session I**

	<b>Chairperson: Arijit Kundu</b>
9:30 am to 10:00 am	<b>Rajesh Narayan (IIT, Chennai )</b> (Title: To kill a Griffiths phase)
10:00 am to 10:30 am	<b>Paramita Dutta (PRL, Ahmedabad)</b> (Title: Gaplessness of superconducting gap)
10:30 am to 11:00 am	<b>Sudeep K. Ghosh (IIT, Kanpur)</b> (Title: Optimizing one dimensional superconducting diodes: Interplay of Rashba spin-orbit coupling and magnetic fields)
11:00 am to 11:30 am	<b>Tea/Coffee Break</b>
	<b>Chairperson: Paramita Dutta</b>
11:30 am to 12:00 pm	<b>Ashis K. Nandy (NISER, Bhubaneswar)</b> (Title: Engineering non-collinear/topological magnetism in heterostructures with s-wave superconductor substrate: A route to topological superconductivity)
12:00 pm to 12:30 pm	<b>Archana Mishra (University of Delhi, Delhi)</b> (Title: Controlling Majorana hybridization in magnetic chain-superconductor systems)
12:30 pm to 1:00 pm	<b>Anamitra Mukherjee (NISER, Bhubaneswar)</b> (Title: Spin-excitations of low-dimensional cuprates beyond linear response)
1:00 pm to 3:00 pm	<b>LUNCH BREAK</b>

**Day 3 (23/08/2024): Session II**

	<b>Chairperson: Ashish K. Nandy</b>
3:00 pm to 3:30 pm	<b>Sumiran Pujari (IIT, Bombay)</b> (Title: A solvable embedding mechanism for one-dimensional spinless and Majorana fermions in higher-dimensional spin-1/2 magnets)
3:30 pm to 4:00 pm	<b>Pachineela Rambabu (Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur)</b> (Title: Berry curvature induced Anomalous Hall and Nernst effects in nearly half-metal CoFeVGe: A first principles study)
4:00 pm to 4:30 pm	<b>Tea/Coffee Break</b>
4:30 pm to 6:30 pm	<b>POSTER SESSION – II (P-19 to P-32)</b>
6:30 pm to 7:00 pm	<b>CONCLUDING REMARKS AND VOTE OF THANKS</b>
7:30 pm to 10:00 pm	<b>DINNER</b>