E-QMAT IIT Roorkee

Posters Presentations

ID	Name	Affiliation	Abstract Title
	DAY 1: October 12, 2022		
1	**Sonika**	School of Physical Sciences, Indian Institute of Technology Mandi, Kamand, Mandi 175075, India	Planar Hall effect in Cu intercalated PdTe2
5	**Himalay Kolavada**	Department of Physics, Electronics & Space Science, St Xavier's College, India	Quantum capacitance of multi-layered 2D iodine for supercapacitor electrode
7	**Avishek Singh**	Indian Institute of Science Education and Research, Bhopal, India	Implications of electron and hole doping on the magnetic properties of spin-orbit entangled Ca4IrO6 from DFT calculations
8	**Haribrahma Singh**	Department of Chemistry, Indian Institute of Technology, Delhi, India	Transport and thermal properties of polycrystalline NbNiTe5
11	**Shyamapada Patra**	Department of Physics, Indian Institute of Technology Bhubaneswar, India	Tuning the wetting and electrical conductivity of multilayered 2D MXene (Ti3C2Tx) using low energy ion beam.
12	**Nikhil Kumar**	Department of Physics, S. D. College Barnala, Punjab, India	FIRST PRINCIPLES STUDY OF STRUCTURAL, PHASE TRANSITION & MAGNETIC PROPERTIES OF LaTe UNDER HIGH PRESSURE
13	**Rahulkumar**	Department of Phyics, Sardar Vallabhbhai National Institute of Technology Surat, India	Electronic and Structural Properties of 2D MXene V3C2 using First Principle with Machine Learning Approach
15	**Arjyama Bordoloi**	Department of Physics, Indian Institute of Technology Guwahati, 781039, Assam, India	Tunable Charge Ordering Behavior in Praseodymium based Perovskites
16	**Sachin Verma**	Department of Physics, Indian Institute of Technology Roorkee, India	Thermoelectric transport through strongly correlated quantum-dot based hybrid devices: A non-equilibrium many body Green's function approach
17	**Bhupendra Kumar**	Department of Physics, Indian Institute of Technology Roorkee, India	Phase and Thermal Driven Transport across T-Shaped Double Quantum Dot Josephson Junction
19	**Gajendra Singh Bisht**	Department of Physics, Indian Institute of Technology Guwahati, India	Correlation between magnetic and dielectric anomalies arising due to spin-chain arrangements in the paramagnetic phase of 1-D Ca3Co1.9Bi0.1O6
21	**Manish**	QMAD, Institute of Nanoscience and Technology, Mohali, India	Light-enhanced gating effect at conducting interface of EuO-KTO interface
22	**Sayan Mondal**	Department of Physics, Indian Institute of Technology Guwahati, India	Vanishing of the $\mathbb{Z}$ and $\mathbb{Z}_2$ invariants in a band deformed topological insulator
29	**Pradeep Kumar**	Department of Physics, Indian Institute of Technology Roorkee, India	Tunable resistive switching characteristics of AlN/FSMA multiferroic heterostructure based ReRAM devices
30	**Abhirup Mukherjee**	Department of Physical Sciences, Indian Institute of Science Education and Research Kolkata, India	Local metal-insulator transition in an extended Anderson impurity model
31	**Purba Dutta,**	Department of Physics, Indian Institute of Science Education and Research Bhopal, India	Antiferromagnet-semiconductor van der Waals Heterostructure
32	**Koushik Ranjan Das**	Department of Physics, Indian Institute of Science Education and Research Tirupati, India	Quantum transport through porphine molecule with varying contact geometries
34	**Dhara Raval**	Department of Physics, Gujrat University	Modulating via external field an electronic band gaps in 2D 1T-PdS2 monolayer
35	**Prabuddha Kant Mishra**	Department of Chemistry, Indian Institute of Technology Delhi, New Delhi 110016, India	Large magnetoresistance in quantum spin Hall insulator candidate Ta2Ni3Te5
38	**Nidhi**	Department of Physics, Indian Institute of Technology Roorkee, India	Evidence of Weak Anti-Localization Effect in High Mobility Platinum Telluride PtTex
39	**Bindiya Babariya**	Department of Physics, Gujarat University, India	Nitrogen containing toxic gas sensing with Janus MoSSe monolayer: A first principles study

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41	**ARPITA DEB SINGHA**	Department of Physics, Indian Institute of Technology Guwahati, India	Field-Induced Magnetic Phase Transitions in Fe substituted Ferrimagnetic MnCo2O4 Spinel
42	**Anusree C V**	Department of Physics, Indian Institute of Technology Hyderabad, India	Two-nodal surface phonons in MnAlGe
44	**Shilpi Roy**	Department of Physics, Indian Institute of Technology Guwahati, India	Multifractal behavior of dimerized Kitaev chain in presence of quasiperiodic potential
45	**Harshita singh**	Department of Physics, Indian Institute of Technology Guwahati, India	Magnetic Exchange Interactions and H-T Phase diagram of Kagomé Heisenberg antiferromagnet Co3V2O8
46	**Greeshma R**	Physics and Nanotechnology, SRM University, Sonipat, India	Tuning electronic and magnetic properties of FeRh alloy by chemical and physical method
	DAY 2: October 13, 2022		
48	**Arnab Kanti Jana**	Department of Physics, Ramakrishna Mission Vivekananda Educational and Research Institute, WB, India	Large magnetocaloric effect in Ho15Si9C
49	**KARUNAKARAN M**	Physics and Nanotechnology, SRM Institute of Science and Technology, India	Ab-initio study of tuning the electronic and magnetic properties of Ni2MnGa Heusler alloy by Co and Mn compound doping
51	**Maulesh Vala**	Department of Physics, Sardar Vallabhbhai National Institute of Technology Surat, India	Schottky and Frenkel Defect on 2D SbS2 Monolayer: First Principles Calculations
52	**Shubham Patel**	Department of Physics, Indian Institute of Technology Kharagpur, India	Large Rashba spin-splitting in AA-stacked Janus van der Waals heterostructures
53	**KHOKAN BHATTACHARYA**	Department of Physics, Shiv Nadar University, India	Pressure evolution of the magnetic states in a topological Weyl semimetal Mn3+xSn1-x: A Muon Spin Relaxation/Rotation study
54	**Ishant**	Shiv Nadar University, India	Quantum Criticality in Ni-doped CePdAl by utilising Muon spin relaxation or rotation technique
55	**Sreejani Karmakar**	Department of Physics, Indian Institute of Science Education and Research, Tirupati, India	g − B3C2N3: A new potential two dimensional metal-free photocatalyst for overall water splitting
56	**SAYAN MONDAL**	Department of Physics, Indian Institute of Technology Guwahati, India	Higher Chern numbers in a semi-Dirac Halden model in in presence of longer range hopping
60	**Soham Avinash Atkar**	Department of Physics, Indian Institute of Technology Guwahati, India	Role of B-site Mn substitution on the Magnetic and Dielectric Properties of LaNdCoO3 Perovskites
61	**Ashes Shit**	Department of Physics, Indian Institute of Technology Kharagpur, India	Effect of Gd doping on structural, transport and magnetic properties of double perovskite Sm2CoMnO6
66	**Krishan Kumar**	Department of Physics, Indian Institute of Technology Roorkee, India	n-MoS2/AlN/p-Si (SIS) heterojunction based solar cells and broad range (Visible-to-NIR) ultrafast photodetectors
67	**VEERPAL**	Department of Physics, Indian Institute of Technology Roorkee, India	Exotic Electronic Properties of Twisted Bilayer Graphene-Emergence of Twistronics
68	**SUSHREE SARITA SAHOO**	Department of Physics, Indian Institute of Technology Hyderabad, India	CaPdBi: A Nontrivial Topological Candidate
69	**Mukesh Kumar Sharma**	Department of Physics, Indian Institute of Technology Roorkee, India	Non-collinear magnetism in cubic and orthorhomic phase of CoV2O4: A DFT+Monte-Carlo study
71	**KIRAN YADAV**	Materials Science and Engineering, Indian Institute of Technology Delhi, India	Hydrogen adsorption and diffusion through two dimensional aluminium : A first principles investigation
73	**Ramandeep Kaur**	Department of Physics, Akal University, Punjab, India	Structural and Electronic Properties of Zintl Phase Ca2MnxAg2(1-x)Sb2 (x=0, 0.25, 0.5) using Spin Polarized First-Principles Calculations
74	**Chandan Kumar Vishwakarma**	Department of Physics, Indian Institute of Technology Delhi, India	Emerging half-metallic ferromagnetism in transition metal substituted NBT
75	**Aswathi K**	School of Physics, Indian Institute of Science Education and Research, Thiruvananthapuram, India	Spin-orbit entangled state in Ba3CuSb2O9 quantum spin liquid

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77	**Soumyasuravi Thakur**	Department of Materials Science and Engineering, Indian Institute of Technology Delhi, India	Exploring Magnetism in graphene like two-dimensional Titanium
78	**Mohd Zeeshan**	Department of Physics, Indian Institute of Technology Delhi, India	Low lattice thermal conductivity in Zintl phases Na2AuBi and Na2AuSb: An ab initio study
79	**Sweta Das**	School of Basic Science (Physics), Indian Institute of Technology Bhubaneswar, India	Tunable Physical Properties of VSe2 hexagonal disks
81	**Charu Singh**	Department of Materials Science and Engineering, Indian Institute of Technology Delhi, India	Micromagnetic simulations of emergent monopole defects and magnetization reversal in connected and dipolar Kagome Artificial Spin Ice
82	**SUBODH KHAMARI**	School of Basic Science, Indian Institute of Technology Bhubaneswar, India	Electrical, Optical and Magnetic Studies of flower shaped Fe3O4@Bi2S3 Core shell hierarchical Structure
83	**LAXMIPRIYA SAHOO**	Physics, Indian Institute of Technology Bhubaneswar,India	TUNABLE MAGNETIC AND ELECTRONIC TRANSPORT PROPERTIES OF Co1+xV2-xO4
84	**Rajan Saini**	Department of Physics, Akal University, Punjab, India	MXene-based highly sensitive and selective NH3 sensor
86	**Soumyakanta Panda**	School of Basic Science(Physics), Indian Institute of Technology Bhubaneswar, India	Magnetism at the interface between iron and manganite based antiferromagnets
88	**Maulesh Vala, Malhar Bhatt**	Department of Physics, Sardar Vallabhbhai National Institute of Technology Surat, India	Optical Properties of 2D SbS2 monolayer with Defect Engineering
	DAY 3: October 14, 2022		
89	**Soumyasree Jena**	Department of Physics & Astronomy, National Institute of Technology Rourkela, India	First-principles study on electronic properties in BiFeO3 based heterostructures
90	**Suvendu Ghosh**	Department of Physics, Indian Institute of Technology Kharagpur, India	Revisiting quantum transport across junctions of multi-Weyl semimetals
91	**Divya Rani**	Department of Physics, Indian Institute of Technology Roorkee, India	Observation of the UV-Visible Photoluminescence from Silica Micro/Nanoparticles
92	**SUBHASIS SHIT**	Department of Physics, Indian Institute of Technology Kharagpur, India	Study of vortex states in Bi2-xPbxSr2CaCu2O8+d (x = 0, 0.1) superconductors from magneto-transport analysis
93	**Sananda Das**	Department of Physics, Indian Institute of Technology Kharagpur, India	Multiferroicity in sol-gel derived gadolinium, cobalt co-doped BiFeO3 nanoceramics
94	**Sanchari Bhattacharya**	Department of Physics & Astronomy, National Institute of Technology Rourkela, India	Emergent Phenomena in KTaO_3/SrTiO_3 Heterostructure
95	**Soumya Chakraborty**	Department of Physics, Indian Institute of Technology Roorkee, India	Quantum Transport in a Low Phosphorous Doped Silicon Single Electron Device
97	**Parvesh Chander**	Department of Physics, Indian Institute of Technology Roorkee, India	Observation of magnetodielectric effects in Nd0.5Dy0.5Fe0.5O3 thin film and its utilization in microstripline based resonator circui
98	**Aryan Bhardwaj**	Department of Physics, Indian Institute of Science Education and Research, Tirupati, India	Melting and Breakdown of Charge-Ordered State in Al doped NdSrMnO3 Off-stoichiometric Perovskites
99	**Sonu Chhillar**	School of Physical Sciences, Indian Institute of Technology Mandi, India	Magnetodielectric coupling as a manifestation of metamagnetic transition and structural distortion in Ba3RRu2O9 (R = Gd, Dy)
101	**Bibek Ranjan Satapathy**	Quantum Material and Device Unit, Institute of Nano Science and Technology, Mohali, India	Electronic and Magnetic studies of Iron based Transition Metal Oxides -A Theoretical approach
102	**ANIL KUMAR**	Department of Physics, Indian Institute of Technology Roorkee, India	Synthesis of Inverted Pyramid Microstructure Arrays to attain ultra-low reflection spectra for the Application of efficient Silicon Solar cell
114	**Amarjyoti Choudhury**	Department of Physics, Indian Institute of Technology Roorkee, India	Magnetic order,electronic structure and topological properties of EuMg2Bi2 from first principles study
115	**Harsha**	Quantum Material and Device Unit, Institute of Nano Science and Technology, Mohali, India	Possible Signatures of Chiral Anomaly in the Magnetoresistance of a Quasi-2-Dimensional Electron Gas at the Interface of LaVO3 and KTaO3
116	**Trilokchand L. Kumavat**	Department of Physics, Sardar Vallabhbhai National Institute of Technology Surat, India	Strain Dependent Optical Properties of MoSi2P4 Monolayer - A Density Functional Study

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117	**SIDDHARAJSINH JAYDEEPSINH KHENGAR**	DEPARTMENT OF PHYSICS, Veer Narmad South Gujarat University, India	An ab initio Study of Structural, Electronic and Optical Properties of Janus AlInS2 homo-bilayer
118	**PRUTHVISINH RAJESHSINH PARMAR**	DEPARTMENT OF PHYSICS, Veer Narmad South Gujarat University, India	A Study of Optical Properties of Janus Monolayer PtTeO: First Principle Apporach
119	**Anshu Gupta**	Quantum Material and Device Unit, Institute of Nano Science and Technology, Mohali, India	Photo response study of the polar-polar interface LaVO3-(111) KTaO3
120	**Shama**	Physics, Institute of Nano Science and Technology, Mohali, India	Study of the Magnetotransport Properties of the Topological Chiral Semimetal CoSi
122	**Aparna M. Patel**	Department of Physics, Sardar Vallabhbhai National Institute of Technology Surat, India	Optoelectronic Properties of van der Waals Heterostructure WS2/Bi2Se3
123	**Alisha**	Department of Physics, Indian Institute of Technology Roorkee, India	Structural and Electrical Transport Properties of Sputter Deposited SiC Thin Films
124	**Srishti Bhardwaj**	Department of Physics, Indian Institute of Technology Roorkee, India	Rare-earth Halide Based Single Phase Triferroic
125	**Mohd Anas**	Department of Physics, Indian Institute of Technology Roorkee, India	Magnetic properties and magnetocaloric effect in Ho0.5Dy0.5VO4
126	**REENU RANI**	Department of Physics, Indian Institute of Technology Roorkee, India	Palladium enhanced electrochemical super-capacitive performance of Chromium oxide thin films synthesized by reactive dc magnetron co-sputtering technique