

Conference on “Exploring Quantum and Thermal fluctuations in Frustrated Magnets at
Low Temperature”

S. N. Bose National Centre for Basic Sciences, Kolkata

26th - 27th December, 2023

Venue: Fermion Hall

Tuesday, 26 December 2023

09.00 – 09.30

Registration

09.30 – 09.45

Opening remarks

Session I: Chair – Nitesh Kumar

9.45 – 10.15

Tanusri Saha-Dasgupta (SNBNCBS)

(First-principles insights on Low dimensional Quantum spin systems)

10.15 – 10.45

Bhavtosh Bansal (IISER Kolkata)

(Critical fluctuations at spinodal singularities)

10.45 – 11.15

Mintu Mondal (IACS)

(Unveiling critical singularities in second-order electronic-transitions: Insights from CDW order parameter fluctuations in quasi-1D system, (TaSe4)2I)

11.15 – 11.30

Tea Break

Session II : Chair – Avijit Chowdhury

11.30 – 12.00

Chandan Mazumdar (SINP)

(Unveiling the rare spin-glass state in novel quaternary Heusler alloy FeRuMnGa)

12.00 – 12.30

Urmimala Maitra (IACS)

(TBA)

12.30 – 13.00

Subhadeep Datta (IACS)

(TBA)

13.00 – 15.30

Lunch Break + Poster Session

Session III : Chair – Arijit Haldar

15.30 – 16.00

Indra Dasgupta (IACS)

(Frustration Induced Novel Magnetism in Quantum Matter)

16.00 – 16.30

Debashree Ghosh (IACS)

(TBA)

16.30 – 17.00

Bheemalingam Chittari (IISER Kolkata)

(Orbital Hall Effect in layered two-dimensional materials)

17.00 – 17.30

Ayan Datta (IACS)

(Harnessing Quantum Mechanical Tunneling for Catalysis)

17.30 – 18.00

Tea + Discussion

Wednesday, 27 December 2023

Session V : Chair – Nitesh Kumar

9.30 – 10.00

Arup Kumar Raychaudhuri (CSIR-CGCRI)
(Nyquist Noise spectroscopy in a Coulomb glass in equilibrium and under a driving force: A paradigm of Frustrated system)

10.00 – 10.30

Kalpataru Pradhan (SINP)
(Frustration driven antiferromagnetic half-metallic phase in half-filled diluted Hubbard model)

10.30 – 11.00

Partha Mahata (Jadavpur University)
(Magnetic and Optical Properties of Metal-Organic Materials)

11.00 – 11.15

Tea Break

Session VI : Chair – Avijit Chowdhury

11.15 – 11.45

Sugata Ray (IACS)
(Unusual electronic behavior of mixed valent pyrochlore iridates)

11.45 – 12.15

Subhasis Sinha (IISER Kolkata)
(Formation of Supersolids at finite temperature in frustrated lattice and other systems)

12.15 – 12.45

Mousumi Das (IISER Kolkata)
(TBA)

12.45 – 15.00

Lunch Break + Poster Session

Session VII: Chair – Pradip S Pachfule

15.00 – 15.30

Satrajit Adhikari (IACS)
(Role of Electron-Nuclear Coupling on Photoelectron Spectra, Reactive Scattering Processes and Phase Transition of Solids)

15.30 – 16.00

Atindra Nath Pal (SNBNCBS)
(Emergent electronic and magnetic phases in quasi-2D vdW ferromagnet)

16.00 – 16.30

Kamaraju Natarajan (IISER Kolkata)
(TDS THz investigation of anti-ferromagnetic topological insulator, $MnBi_2Te_4$)

16.30 – 17.00

Ashwani Kumar Tiwari (IISER Kolkata)
(TBA)

17.00 – 17.15

Closing remarks

17.15 – 17.30

Tea