



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Condensed Matter Seminar

Title : Signatures of fractionalized excitations in quantum spin liquids

Speaker: Nandini Trivedi (The Ohio State University, USA)

Date : Thursday, 25th April 2024

Time : 11:30 AM (IST)

Abstract: Quantum spin liquids (QSLs) are long-range entangled states of matter of billions

of interacting qubits or spins that develop in a Mott insulator. Remarkably QSLs harbor fractionalized excitations rather than the conventional spin waves of ordered magnets that carry integer units of angular momentum. In my talk I will identify detectable signatures of these fractionalized excitations in pump-probe spectroscopy. These fractionalized excitations are promising candidates to create

logical qubits for quantum computation.

Venue: Chern Lecture Hall

 $Zoom\ link: \underline{\text{https://icts-res-in.zoom.us/j/91934239401?pwd=Tk8rWk52Nmx2WnB0MVBud2RNTVhSdz09}}$

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