Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy Dist., Hyderabad – 500 046

Seminar

Scaling superconducting qubits: remote entanglement and hardware-efficient modularity

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Scalable quantum computing demands modular architectures with robust interconnects and control techniques. This talk highlights two advancements using superconducting qubits: demonstrating high-fidelity remote entanglement between two remote transmon modules through a superconducting cable bus, and utilising fluxonium as an efficient ancillary qubit to a storage cavity for bosonic quantum computing. Together with ongoing research on multi-qubit gates, these hardware-efficient protocols advance the realisation of fast, distributed quantum processors.

Monday, Jan 19th 2026

14:30 Hrs (Tea / Coffee 14:15 Hrs)

Seminar Hall, TIFRH