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

Colloquium

Monomer Percolation

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Recent work has identified an interesting connection between topologically protected ground-state degeneracies in a class of random quantum systems, and unmatched sites in the classic combinatorial problem of maximum matchings of the corresponding random lattices. This connection suggests a mechanism for the formation of localised magnetic moments in spin-liquid insulators. A computational study of such maximum matching problems has also led to the identification of interesting variants of the classical percolation transition. In this talk, I will introduce the main ideas involved from scratch and provide a synopsis of these recent developments.

Tuesday, June 20th 2023

4:00 PM (Tea / Coffee 03.45 PM)

Auditorium, TIFR-H