

Presents ... Monday, September 22, 2008 12:00pm MIT Room 4-331



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"Quantum Order by Disorder in Frustrated Magnets"

Correlated magnetic insulators on geometrically frustrated lattices are often described by spin models that possess macroscopically degenerate classical ground states. We discuss how thermal and quantum fluctuations on the degenerate classical ground states lift the degeneracy and lead to various conventional and exotic quantum ground states. Applications to Spinel materials and recently discovered hyper-kagome system, Na4Ir3O8, will be discussed.