

Abstract Submitted
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Finite temperature phase diagram of quantum compass model¹

FEI LIN, VITO SCAROLA, Virginia Tech — The quantum compass model has been proposed as a simplified model to study Mott insulators with orbital degeneracy and, more recently, as a candidate model to study protected non-local qubits. In this talk we will show that in addition to well known bond-directional ordering, there is additional ordering associated with long range string operators. We will discuss quantum Monte Carlo results that explore the thermodynamics of non-local order in the quantum compass model.

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