

Massachusetts Institute of Technology  
Department of Physics

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## Condensed Matter Theory Seminar

“Entanglement negativity in topologically ordered phases”

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**Abstract:** Unlike entanglement entropy and mutual information which may mix both classical and quantum correlations, entanglement negativity received extensive interest recently, for its merit of measuring the pure quantum entanglement in the system. In this talk, I will introduce the entanglement negativity in 2+1 dimensional topologically ordered phases. For a bipartitioned or tripartitioned spatial manifold, we show how the universal part of entanglement negativity depends on the presence of quasiparticles and the choice of ground states. Besides interpreting recent results in exactly solvable lattice models, we predict some new results for non-Abelian topologically ordered phases. If time allowed, I will also introduce results on inhomogeneous topologically ordered phases.

**12:00pm**  
**Wednesday, November 16, 2016**  
**Low Room (6C-333)**

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Host: Liang Fu