

Massachusetts Institute of Technology
Department of Physics

Condensed Matter Theory Seminar

“Monopoles and confinement in 3d gauge theories”

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Abstract: In the presence of a large number of fermion flavors, 3d quantum chromodynamics does not confine. It flows instead to an interacting conformal field theory in the infrared. In this talk, I will use the $1/N_f$ expansion to investigate the properties of monopole operators in this CFT and extract estimates for the smallest number of fermion flavors above which the theory does not confine. I will present such estimates for several gauge groups and matter representations, and comment on the significance of these results in the context of algebraic spin liquids.

12:00 noon
Tuesday, October 22, 2013
Duboc Seminar Room
Room 4-331