

DEPARTMENT OF PHYSICS

CMT Seminar

Monday, November 7, 2016

11:30am Robert Smith Seminar Room

1080 Smith Seminar Room

Romain Vasseur
University of California, Berkeley



**“Symmetry constraints and
topological phases far from equilibrium ”**

In this talk, I will describe some general constraints on the existence of many-body localized (MBL) phases in the presence of global symmetries. Based only on representation theory, I will derive some general Mermin-Wagner-type principles governing the possible fates of non-equilibrium dynamics in isolated, disordered quantum systems. In particular, I will show that MBL cannot exist in the presence of non-Abelian symmetries. Consequences for the classification of MBL protected topological phases (and Floquet phases) will be discussed.

FACULTY HOST: Ilya Gruzberg



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