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CENTER OF MATHEMATICAL SCIENCES AND APPLICATIONS
COLLOQUIUM

Subir Sachdev
Harvard University

will speak on:

Quantum statistical mechanics of charged black holes and strange metals

Wednesday, October 5, 2022
4:00 - 5:00 pm ET
CMSA, 20 Garden St, seminar room G-10

The Sachdev-Ye-Kitaev model was introduced as a toy model of interacting fermions without any particle-like excitations. I will describe how this toy model yields the universal low energy quantum theory of generic charged black holes in asymptotically 3+1 dimensional Minkowski space. I will also discuss how extensions of the SYK model yield a realistic theory of the strange metal phase of correlated electron systems.