Condensed Matter Theory Center Seminar

Tuesday, April 3
11:00 am – 12:15 pm
2205 John S. Toll Physics Building

Qimiao Si
Rice

"Magnetism and topology in strongly correlated metals"

Abstract: Central to the correlated electron systems is the notion that novel phases develop near magnetism, which leads to a rich phase competition. When a large spin-orbit coupling accompanies strong electron correlations, topological electronic states emerge in the global quantum phase diagram. In this talk, I will make these general points by specific theoretical models for strongly correlated metals and their realizations in experiments. Through these discussions, I also hope to highlight a unusual path that links the prototypical cases of quantum criticality and strange metal behavior to a seemingly unrelated setting of correlation-driven topological semimetals.

Host: Victor Galitski

Web: http://www.physics.umd.edu/cmtc/seminars.html