HQOC
Harvard Quantum Optics Center

ITAMP
Institute for Theoretical Atomic Molecular and Optical Physics

Joint Quantum Sciences Seminar

Wednesday, March 22, 4:00 pm
Jefferson 250

Prof. Randall Hulet

Rice University

"Pairing of Spin Polarized Fermi Gases"

Ultracold atomic gases are versatile platforms for realizing novel many-body states of matter by virtue of the ability to tune parameters such as interaction, density, dimensionality, and spin-polarization. I will describe experiments that have produced phase diagrams of spin-polarized Fermi gases in 1D, 3D, and in the 1D-3D dimensional crossover. I will conclude with our progress to create the holy grail of this research, which is the observation of the "elusive" FFLO superfluid state, a state that exhibits coexisting magnetic and superconducting order.

10 minute presentation by Rivka Bekenstein will begin at 4:00 PM
Guest Presentation will begin at 4:30 PM
Refreshments will be provided