

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Cooling across the superfluid-normal interface of a unitary Fermi gas - an analogue of a dilution fridge?** ARIJEET PAL, DAVID HUSE, Princeton University — Phase separation between paired superfluid and partially polarized normal phases has been observed by various experimental groups around the world using resonantly-interacting spin-imbalanced, hyperfine states of fermionic atoms. In this work we phenomenologically study the effect of the evaporation of atoms and explore the possibility of realizing a non-equilibrium steady state with chemical potential and temperature gradients in some of these experiments.

Arijeet Pal  
Princeton University

Date submitted: 18 Nov 2011

Electronic form version 1.4