

Department of Theoretical Physics

Free Meson Seminar

<i>Speaker</i>	:	Sayantan Sharma
<i>Topic</i>	:	Thermodynamics of fermions with exact chiral symmetry on lattice
<i>Day, Date & Time</i>	:	Thursday, April 3, 2008 at 2:30 p.m.
<i>Place</i>	:	AG 69

Abstract

Investigations of QCD with nonzero chemical potential are important for the physics of neutron stars and heavy-ion collisions. Staggered fermions, used most commonly in such studies, preserve approximate chiral symmetry but break spin and flavour symmetries, famously known as “rooting of the determinant” problem. Recently proposed overlap and Domainwall fermions have superior chiral properties and do not suffer from the rooting problem. In an effort to study QCD thermodynamics using them, we study the free Fermi gases of such fermions.

(Saumen Datta)