

Theory Seminar

Monday, November 22, 2010 2:10 PM 831 Pupin Hall

Phase Transitions of Charged Scalars and White Dwarf Stars

Recent works have argued that the cores of certain white dwarf stars may contain a new kind of quantum liquid -- a condensate of charged spin-0 particles. In this talk I will present a field-theoretic approach to studying the properties of this state of matter at finite temperature and the phase transition into this state. I will discuss evidence that the phase transition in white dwarf stars can be first order.

Rachel Rosen, Stockholms universitet