PHYSICS AND ASTRONOMY
SEMINAR

Dr. Adolfo Malbouisson

Brazilian Center for Physics Research (CBPF), Rio de Janeiro

"Field Theories in a toroidal topology: Finite size effects in phase transitions"

Abstract

We present some results from the formulation of Quantum Field Theories in toroidal topologies:
For a massive vector scalar field theory, we study spontaneous symmetry restoration driven by temperature and spatial boundaries. We exhibit how finite size and chemical potential affect spontaneous symmetry restoration in dimension D=4.

We describe briefly for a complex field theory in $D=4$, how finite size and chemical potential together with an applied magnetic field affect a first-order phase transition.

Thursday, February 27, 2014
11:30 a.m.
Elliott Building
Room 161