

Institut Ruđer Bošković
ZAVOD ZA TEORIJSKU FIZIKU
Bijenička c. 54
ZAGREB, HRVATSKA

SEMINAR ZAVODA ZA TEORIJSKU FIZIKU
(Zajednički seminari Zavoda za teorijsku fiziku,
Zavoda za eksperimentalnu fiziku IRB-a i Fizičkog odsjeka PMF-a)

Anomalies and renormalization of mixed states

Kumar S. Gupta

Theory Division, Saha Institute of Nuclear Physics, Kolkata, India

Datum: srijeda, 25. rujna 2013.

Vrijeme: **11.30 sati s.t.**

Mjesto: IRB, predavaona I krila

Sažetak:

Anomalies occur when classical symmetries are broken due to quantization. In this talk we discuss a nonperturbative approach to anomalies in the Hamiltonian framework and show how P and T symmetries can become anomalous within such a scheme. Next we discuss how such symmetries can be restored by using a suitable mixed state. The expectation values of observables such as the Hamiltonian diverge in such a mixed states. We show how RG type techniques can be used to handle such divergences. Finally we discuss the possible physical application of such systems.

Voditeljica seminara: Larisa Jonke
(larisa@irb.hr)