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 i Zavoda za teorijsku fiziku PMF-a)

Relations derived from minimizing the Higgs field squared (integrated over space-time)

Holger Bech Nielsen The Niels Bohr Institute, Copenhagen, Denmark

> Datum: četvrtak 07. srpnja 2011. Vrijeme: **15:00 c.t.** Mjesto: IRB, seminar ZTF-a

Sažetak:

Based on a speculative model of complex acton or almost equivalently non-Hermitean Hamiltonian by Ninomiya and myself, going back though to ideas with Don Bennett, it is suggested that the integral over space-time of the Higgs field *squared* should be minimalized. One outcome of such an idea is a fine tuning of the Higgs mass which essentially solves the hierarchy problem. Another is a relation between the suppression of the Higgs field by a neutron say and the particles into which a neutron can decay. They should suppress the Higgs field equally much. Also the knee so called in cosmic ray spectrum is at the Higgs production effective threshold roughly.

> Voditelj seminara: Dr. Hrvoje Nikolić (hrvoje@thphys.irb.hr)