

Institut Ruđer Bošković
ZAVOD ZA TEORIJSKU FIZIKU
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SEMINAR ZAVODA ZA TEORIJSKU FIZIKU

(Zajednički seminari Zavoda za teorijsku fiziku,
Zavoda za eksperimentalnu fiziku i Zavoda za teorijsku fiziku PMF-a)

Coincidences supporting backward causation

Prof. Holger B. Nielsen

The Niels Bohr Institute, Copenhagen, Denmark

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Sažetak:

We seek to interpret a few coincidences - such as the value of the Higgs field VEV, quark mass relations, as an effect of a backward causation model by Ninomiya and myself effectively telling that things got arranged to minimise $\int [\varphi_h(x)]^2 d^4x$ where $\varphi_h(x)$ is the Higgs field.

One relation predict a formula relating the light quarks and electron mass to $\frac{1}{3}$ of the "valence" part of the nucleon mass. The hierarchy problem mystery of how even the renormalized Higgs mass scale got so surprisingly small is interpreted as one of the adjustments to minimise the Higgs field squared. The top yukawa is predicted to be of order unity. Also the "knee" in cosmic ray spectrum is seen as a support.

Voditelj seminara: Hrvoje Štefančić
(shrvoje@thphys.irb.hr)