



Contribution ID: 217

Type: not specified

Second Order Phase Transition in Anisotropic Lattice Gauge Theories with Extra Dimensions

Tuesday, 15 June 2010 15:50 (20 minutes)

Field theories with extra dimensions live in a limbo. While their classical solutions have been the subject of considerable study, their quantum aspects are difficult to control. A special class of such theories are anisotropic gauge theories. The anisotropy was originally introduced to localize chiral fermions. Their continuum limit is of practical interest and it will be shown that the anisotropy of the gauge couplings plays a crucial role in opening the phase diagram of the theory to a new phase, that is separated from the others by a second order phase transition. The mechanism behind this is now understood and is, indeed, generic for a certain class of models, that can be studied with lattice techniques. This leads to new perspectives for the study of quantum effects of extra dimensions.

Please, insert your presentation type (talk, poster)

talk

Primary author: NICOLIS, Stam (CNRS-LMPT Tours)**Presenter:** NICOLIS, Stam (CNRS-LMPT Tours)**Session Classification:** Parallel 35: Theoretical developments**Track Classification:** Theoretical developments