



Contribution ID: 66

Type: **not specified**

Nearest-Neighbour Interaction from an Abelian Symmetry and Deviations from Hermiticity

Tuesday, 7 December 2010 17:50 (25 minutes)

We show that Nearest-Neighbour Interaction (NNI) textures for the quark mass matrices can be obtained through the introduction of an Abelian flavour symmetry. The minimal realisation requires a Z_4 symmetry in the context of a two Higgs doublet model. It is further shown that the NNI textures can be in agreement with all present experimental data on quark masses and mixings, provided one allows for deviations of Hermiticity in the quark mass matrices at the 20% level.

Primary author: Prof. CASTELO BRANCO, Gustavo (Centro de Física Teórica de Partículas - Instituto Superior Técnico)

Co-authors: SIMOES, Catarina (Centro de Física Teórica de Partículas - Instituto Superior Técnico); Dr EM-MANUEL-COSTA, David (Centro de Física Teórica de Partículas - Instituto Superior Técnico)

Presenter: SIMOES, Catarina (Centro de Física Teórica de Partículas - Instituto Superior Técnico)

Session Classification: T, C, P, CP symmetries, accidental symmetries (B, L cons.) (6)

Track Classification: T, C, P, CP symmetries, Accidental symmetries (B, L conservation)