Contribution ID: 131

Type: not specified

Proton Stability and Gauge Coupling Unification constraints on string derived models

Thursday 23 May 2013 17:30 (15 minutes)

An appealing proposition to explain the suppression of proton decay mediating and other operators, in heterotic string derived models, is the existence of a low scale Z' that forbids the undesired operators, and thus may arise only after Z' breaking. We will discuss the constraints on such a Z' arising in string derived models and focus on the constraints arising from gauge coupling unification. In two contrasting cases we will show that the phenomenological constraints at the electroweak scale necessitate that the Z' charges are embeddable in E_6 . We will discuss how free fermionic models with the required properties may be constructed.

Presenter: MEHTA, Viraf

Session Classification: Parallel Session on Formal BSM