

PRISMA+ Colloquium

July 23, 2014 at 1 p.m.
Minkowski-Raum 05-119, Staudingerweg 7

Stuart Raby
Ohio State

SO(10) Yukawa unification : gluinos at the LHC

Supersymmetric grand unified theories can be very predictive, especially when incorporating flavor symmetries which are useful for reducing the number of arbitrary parameters. We show that fitting fermion masses not only constrains the Yukawa sector of the theory, but also constrains the soft SUSY breaking parameters and thus the sparticle spectrum. In this talk I discuss a particular SO(10) SUSY GUT with a D3 family symmetry. We use precision electroweak data, as well as CMS and ATLAS data to place bounds on the gluino mass.