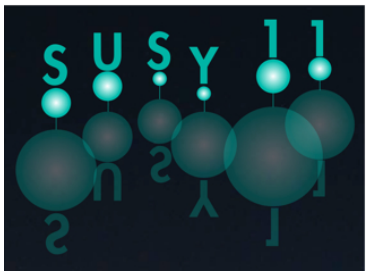

Contribution ID: **528** Type: **not specified**

Explaining the Tevatron Forward-Backward asymmetry with a W'?

Thursday, September 1, 2011 12:30 PM (25 minutes)

We investigate if the Tevatron Forward-Backward asymmetry can
be explained by T-channel exchange of a W' gauge boson coupling to
down and top quarks.
In a gauge theory UV completion of such a model, the W' is accompanied by a Z'
at a similar mass scale, which is strongly constrained. Null results
from searches for
dijet and dilepton resonances at the Tevatron are especially
restrictive, and combinedl
implying large mass splitting between the W' and Z'.
We argue that such a splitting can only be accomplished if the gauge
symmetry is broken by
a scalar in a large dimension representation of the gauge group, for
which no perturbative description exists.

Presenter: SPETHMANN, C.

Session Classification: Parallel Session 8