

## **P. Anastasopoulos: "Anomalous U(1)'s at LHC"**

*Friday 8 August 2008 10:30 (30 minutes)*

I will study an extension of the MSSM by an anomalous abelian vector multiplet and a Stueckelberg multiplet. The anomalies are cancelled by the Green-Schwarz mechanism and the introduction of three-gauge-boson couplings that provide a massive boson like  $Z'$  with additional new couplings that have not been considered in the past. I will study the effects of these anomaly related terms and we show that they provide new effects in decays like  $Z' \rightarrow Z \text{ photon}$  and  $Z' \rightarrow Z Z$  showing that in many cases the effects might be visible at LHC.

**Author:** ANASTASOPOPULOS, Pascal (U. Rome 2)

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