

LEPP Journal Club

Friday, April 1, 2011. 4:00 pm (3:45 refreshments)
301 Physical Sciences Building



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Search for a heavy gauge boson $W' \rightarrow e \nu$

A search for a heavy gauge boson W' has been conducted by the CMS experiment at the LHC in the decay channel with an electron and large transverse energy imbalance, using proton-proton collision data corresponding to an integrated luminosity of 36 pb^{-1} . No excess above standard model expectations is seen in the transverse mass distribution of the electron-(missing E_T) system. Assuming standard-model-like couplings and decay branching fractions, a W' boson with a mass less than $1.36 \text{ TeV}/c^2$ is excluded at 95% confidence level.

