

Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Search for Matter Symmetry Violation with Inclusive Multileptons DMITRY HITS, Rutgers University, CMS COLLABORATION — We present a multi-channel search for new physics with a signature of three or more leptons in the final state based on data collected by CMS in the LHC 2010 run. We categorize the events into exclusive search channels and, using both Monte Carlo and data driven methods, we estimate the backgrounds for each channel. We then organize the channels in a hierarchical order that is inversely proportional to the amount of background. Using a data sample of 35 pb^{-1} at a total collision energy of 7 TeV, we probe new physics such as matter symmetry violation in the leptonic sector in theories with partner particles, leptonic R -parity violation in Supersymmetry being one example.

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Date submitted: 13 Jan 2011

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