Abstract Submitted
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A Search for Supersymmetry with three or more leptons using $4.7fb^{-1}$ of $\sqrt{s} = 7$ TeV CMS data[1] SHRUTI PANWALKAR, RICHARD GRAY, SUNIL SOMALWAR, AMITABH LATH, SCOTT THOMAS, JOHN PAUL CHOU, MATTHEW WALKER, SANJAY ARORA, EMMANUEL CONTRERAS-CAMPANA, PETER THOMASSEN, PATRICK ZYWICKI, MICHAEL PARK, KIN CHAN, KELVIN MEI, ERIC WILLIAMS, Rutgers, The State University of New Jersey-New Brunswick, CMS COLLABORATION — A search for physics beyond the standard model in events with at least three leptons and any number of jets is presented. The data sample corresponds to $4.7fb^{-1}$ of integrated luminosity in pp collisions at $\sqrt{s} = 7$ TeV collected by the CMS experiment at the LHC. Fifty-two exclusive multileptonic channels have been investigated. Standard model backgrounds are suppressed by requiring sufficient missing transverse energy, invariant mass inconsistent with that of the Z boson, or high jet activity. Control samples in data are used to ascertain the robustness of background evaluation techniques and to minimize the reliance on simulation. The observations are consistent with expectations from standard model processes. These results are used to exclude previously unexplored regions of the supersymmetric parameter space.

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