Search for Non-resonant excesses from Contact Interactions and Large Extra Dimensions in $\mu^+\mu^-$ and $e^+e^-$ Final States in 13 TeV p-p Collisions at CMS

SHAWN ZALESKI, Wayne State University, CMS COLLABORATION — We report results on the search for contact interactions (CI) and large extra dimensions (LED) using data collected during the 2016 run, in proton-proton collisions at the $\sqrt{s} = 13$ TeV by the Compact Muon Solenoid experiment at the Large Hadron Collider at CERN. The analyzed data correspond to luminosities of about $36 \ fb^{-1}$. The results, for CI, are interpreted in the context of left-left, left-right, and right-right helicity quark and lepton compositeness models with an energy scale parameter $\Lambda$. The LED model, with exchange of gravitons, is characterized by energy scale parameter $\Lambda_T$. Using information from the invariant mass distribution we set 95% confidence level lower limits on $\Lambda$, for both destructive and constructive interference models, and on $\Lambda_T$. 

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