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Search for physics beyond the standard model in events with two leptons, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV



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ABSTRACT: A search is presented for physics beyond the standard model in final states with two opposite-sign same-flavor leptons, jets, and missing transverse momentum. The data sample corresponds to an integrated luminosity of 19.4 fb^{-1} of proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ collected with the CMS detector at the CERN LHC in 2012. The analysis focuses on searches for a kinematic edge in the invariant mass distribution of the opposite-sign same-flavor lepton pair and for final states with an on-shell Z boson. The observations are consistent with expectations from standard model processes and are interpreted in terms of upper limits on the production of supersymmetric particles.

KEYWORDS: Supersymmetry, Hadron-Hadron Scattering

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