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# Search for physics beyond the standard model in opposite-sign dilepton events in pp collisions at $\sqrt{s} = 7$ TeV

**The CMS collaboration**

Abstract: A search is presented for physics beyond the standard model (SM) in final states with opposite-sign isolated lepton pairs accompanied by hadronic jets and missing transverse energy. The search is performed using LHC data recorded with the CMS detector, corresponding to an integrated luminosity of 34 $\text{pb}^{-1}$. No evidence for an event yield beyond SM expectations is found. An upper limit on the non-SM contribution to the signal region is deduced from the results. This limit is interpreted in the context of the constrained minimal supersymmetric model. Additional information is provided to allow testing the exclusion of specific models of physics beyond the SM.

Keywords: Hadron-Hadron Scattering



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shapes of various relevant kinematic distributions. In the absence of evidence for BSM physics, we have set upper limits on the non-SM contributions to the signal regions. The result was interpreted in the context of the CMSSM parameter space and the excluded region was found to exceed those set by previous searches at the Tevatron and LEP experiments. Information on the acceptance and efficiency of the search was also provided to allow testing the exclusion of specific models of BSM physics.

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