

# Search for SUSY signatures with the CMS detector in events with electron(s), jets and missing energy: Handling of QCD background

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Generic signatures of supersymmetry with R-parity conservation include same-sign isolated dielectron pairs, accompanied by energetic jets and missing transverse energy. The detection of these signatures relies on the observation of an excess of events over Standard Model background expectations. In this study we present different methods to control and estimate Standard Model backgrounds for same-sign dielectron final states. The study is performed for several mSUGRA benchmark points, with the full simulation of the CMS detector and for an integrated luminosity of 100 pb<sup>-1</sup>.

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