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Searches for Dark Sector at CMS

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Dark matter (DM) is one of the most compelling piece of evidence for physics beyond the standard model (BSM). If non-gravitational interactions exist between DM and Standard Model (SM) particles, DM could be produced by colliding SM particles at high energy. Thus, one important goal of the Large Hadron Collider (LHC) is to find the DM signature. Since the DM particles leave the detector without a measurable signature, one way to observe them is when they are produced in association with a visible SM particle, called MET+X where MET is the missing transverse energy. Thus, the strategy to search for DM at the LHC is to use a large MET due to the DM, which is a recoil of SM particles for DM particles. If the DM particles are produced with SM particles X, it refers as "mono-X"process. We present the latest results on the Dark Sector searches at 13 TeV with the Run II data collected from the CMS experiment.

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