

Magnetic Monopoles and Monopolium in pp Collisions

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The aim is to review the theory developments for the production of the Dirac magnetic monopole, and the monopolium, and establish their limits for pp collisions. The mass range used for the monopole is based on recent results of ATLAS and MoEDAL, and the simulations are made for the current LHC energies and for the energies of the future colliders HE-LHC and FCC. The cross sections are calculated for the usual velocity dependent coupling, and the magnetic moment dependent coupling, more recently proposed. It will also be discussed the advantages in using each one of the couplings, and the monopolium as an indirect measure .

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