Searching for lepton jets at hadron colliders

mercredi 15 décembre 2010 11:00 (1 heure)

A lepton jet is a cluster of highly collimated charged particles: electrons, and possibly muons and pions. Lepton jets can be produced in colliders in a class of theories that contains light (GeV scale, or less) hidden sector particles. I will review the strategies to search for these objects at hadron colliders. I will talk in more detail about one method, proposed in 1007.3496, to discriminate high multiplicity electron jets from QCD jets. The main discriminating variables are the jet electromagnetic fraction and charge ratio. The efficiency for rejection of QCD jets is estimated to be of order 10^{-3} per jet.

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