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Measuring Coloron Couplings Through Associated Production with W Bosons at the LHC

Tuesday 8 May 2012 15:15 (15 minutes)

Abstract:

Colorons and axigluons are massive color-octet vector bosons introduced in several theories beyond the standard model, including those potentially capable of explaining the large top quark forward-backward asymmetry observed at the Tevatron. We study how one could determine the chiral structure of the coloron couplings at the LHC, using the associated production of these particles with a W boson. Our results for the anticipated LHC sensitivity are shown for a 14 TeV center of mass energy and 10 and 100 fb^{-1} integrated luminosity.

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