

Abstract:

The potential of LHC for investigation of the $W^+t^-b^-$ vertex through the tW^+ channel of single top quark production is studied. Unlike the other two single top quark production processes (t -channel and s -channel), the tW^+ channel provides the possibility to study the Wtb vertex without receiving contamination from FCNC. This study has been done at parton level but is involved the separation of signal from backgrounds when both W -bosons decay to leptons. In this study \mathcal{CP} is assumed to be conserved. The 68% C.L. bounds on the non-Standard Model couplings are estimated.