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Limits on anomalous contributions to the Wtb vertex CHRISTOPHER PEASE, City College of New York, City University of New York, MIGUEL FIOLHAIS, Borough of Manhattan Community College, City University of New York, ANTONIO ONOFRE, LIP, University of Minho — Recent LHC results on the measurements of the W-boson helicity fractions and single top quark production cross section at a center-of-mass energy of 13 TeV are combined in order to establish new limits on anomalous contributions to the Wtb vertex. The allowed regions for these limits are presented in three-dimensional graphics, for both real and imaginary components of the different anomalous couplings, allowing all the other anomalous couplings to vary at the same time. These results are combined with the prospected future measurement of the single top quark production cross section and W-boson helicity fractions at the LHC. When compared with the previous most precise limits, these results show a significant improvement, larger than 10%.

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