

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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## $tZ'$ production at hadron colliders

*Wednesday, 25 March 2020 12:40 (20 minutes)*

We study the production of a single top quark in association with a heavy extra  $Z'$  at hadron colliders in new physics models with and without flavor-changing neutral-current(FCNC) couplings. We use QCD soft-gluon resummation and threshold expansions to calculate higher-order corrections for the total cross section and transverse-momentum distributions for  $tZ'$  production. The impact of the uncertainties due to the structure of the proton and scale dependence is also analyzed.

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