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Data-driven estimation of Z-boson backgrounds to new physics with the b-jet and missing transverse energy signature TROY MULHOLLAND, University of Colorado, Boulder, CMS COLLABORATION — We present a search for new physics using 19 fb^{-1} of data collected at the Large Hadron Collider (LHC) using the Compact Muon Solenoid (CMS) detector. Events were selected that contained at least three jets, at least one b-quark jet, and large missing transverse energy. A detailed description of a background arising from a Z-boson decaying to a pair of neutrinos ($Z \to \nu\bar{\nu}$) is presented. Results from our analysis are presented with a discussion on our sensitivity to the $Z \to \nu\bar{\nu}$ background estimate.

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