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Study of W boson production using the ATLAS detector WILL HUNTER, JOSHUA LOYAL, ZONGJIN QIAN, Duke University, ATLAS COL-LABORATION — The Large Hadron Collider is now in operation and providing 7 TeV proton-proton collisions for physics measurements. These data are being used by the ATLAS Collaboration to establish the detector's performance and to provide tests of the Standard Model in a new energy domain. We will present studies of $pp \rightarrow W + X \rightarrow \ell \nu + X$ production. Events are selected where the W decays to an electron or muon and missing energy as a signal for neutrinos. Methods for selecting these events will be discussed along with the results of early measurements.

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