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Combined Single-Top Search with Early ATLAS Data JENNY HOLZBAUR, R. SCHWIENHORST, B.G. POPE, P. RYAN, Michigan State University, ATLAS COLLABORATION — We use simulated events to examine the potential to observe the production of a single-top quark in the early ATLAS data. For integrated luminosities of less than 100 pb<sup>-1</sup>, multivariate techniques are used to extract the single-top quark signal, which is small compared to the background. Two separate samples are considered, one containing 1 *b*-tagged jet and another containing 2 *b*-tagged jets. In both samples, the three single-top channels are combined to allow for consideration of the full single-top quark signal.

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