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A Novel Method for Estimating Backgrounds Due to Signal Physics in a Neutrino Cross Section Measurement JACKIE SCHWEHR, Colorado State Univ — The charged-current single pion (CC1Pi) cross section analysis using data from the near detector of the T2K experiment aims to measure kinematic parameters of final state particles in neutrino induced single pion production. A challenge to this measurement is that several of the backgrounds for this analysis are the result of the same neutrino interaction that creates the signal through misidentification of a final state particle or due to secondary interactions prior to detection. We present a novel method for estimating these signal-originated backgrounds using measurements of the signal itself and we demonstrate the effectiveness of this approach for the CC1pi analysis.

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