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Forward Folding Likelihood Fitting as a Method for Kinematic Unfolding at T2K THOMAS CAMPBELL, Colorado State Univ, T2K COLLABORATION — Particle physicists are often interested in measuring observable properties (momentum, energy, etc.) of particles in their detectors. However, the inherent imperfections of particle detectors of any kind lead to an important question: If a particle is produced in a detector with some true value of an observable quantity, what value will the detector measure? Furthermore, to what extent is it possible to infer information about the observable's true values knowing only the value measured by the detector? The process of attempting to infer the true values of observable properties (kinematics) from the measured values for those kinematics for some collection of particles produced in a detector is referred to as "kinematic unfolding." This talk will briefly present one method of attempting this process that has been implemented in a current analysis at T2K to make a world first measurement of the muon anti-neutrino CC-0π cross section on water. General ideas of the method as well as its specific application to this analysis including data results will be presented.

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