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An Overview of CC Coherent Pion Production ZACHARY WILLIAMS, University of Texas at Arlington — Neutrino cross-sections are a critical component to any neutrino measurement. With the modern neutrino experiments aiming to measure precision parameters, such as those in long-baseline oscillation experiments, the need for a detailed understanding of neutrino interactions has become even more important. Within this landscape remains a number of experimental challenges in the regime of low energy neutrino cross-sections. This talk will give an overview of recent publications on Charged Current-Coherent Pion Production (CC-Coh Pion) results from a number of experimental collaborations. Specifically, the lack of observation from the SciBooNE and T2K collaborations to observe CC-Coh Pion below one GeV in contrast to the observation of this signature at higher energies by other experiments. The work presented here is a part of the beginning steps to a reanalysis of the SciBooNE data using a modern neutrino generator in order to better understand the previous results. There will be included details of a liquid Argon purification system that is being built at UTA, and of plans for a "Baby Time Projection Chamber (TPC)" which will also be built at UTA, and the instrumentation and detector methods used in their construction. The closing is a look to the future for a new analysis at low neutrino energies utilizing Liquid Argon Time Projection Chambers (LArTPCs) based at Fermilab.

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