Contribution ID: **162**   Type: **not specified**

Streaming data acquisition system for CLAS12 Forward Tagger

Thursday, 18 March 2021 14:40 (15 minutes)

CLAS12 detector is installed at Jefferson Lab's experimental Hall-B and the purpose of its huge science program is to provide substantial progress in understanding the Quantum Chromo Dynamics (QCD). Such a detector requires a sophisticated trigger and current experiments use an on-line FPGA-based system that relies upon custom firmware and electronics both of which are difficult reconfigure from one experiment to the next. To overcome these challenges an effort is underway to develop streaming readout (SRO) data acquisition system. The latter would allow a more flexible, easier to debug, software trigger to be developed. A SRO prototype system has been developed based on four main components: front-end electronics based on JLAB-FADC250 and VTP modules , TriDAS and CODA data acquisition systems and the JANA2 analysis/reconstruction framework.

In this contribution I will present the results of successful on-beam test performed in the the winter and summer of 2020 to read in streaming mode, with the cited triggerless chain, the CLAS12 Forward Tagger.

Primary author: BONDI', Mariangela (INFN - Genova)

Presenter: BONDI', Mariangela (INFN - Genova)

Session Classification: TDAQ

Track Classification: TDAQ