

# DAQ progress report, January 2008

P. King & J. Roche  
Ohio University

- most of the activity: VQWK ADC testing  
Paul's talk from yesterday
- progress since last collaboration meeting
- upcoming activities

## ADC tests at OU

- Test stand details
  - Two channels with  $\sim 6$   $\mu\text{A}$  current source and preamp
  - One channel with varying DAC signal:  $\sim 1\text{V}$  to  $\sim 4.5\text{V}$
  - One channel terminated
- Asymmetry test with preamp and  $6$   $\mu\text{A}$  current source
  - Damping  $60$  Hz pickup in current source
- Crosstalk between channels
- “Low Block-0” feature; is it a problem?

### DAQ point of view

So far: one ADC board read out, simple analyzer

Soon: multiple boards read out, more complex analyzer

From last collaboration meeting 's report (Triumpf July 07):

## Plans for the remainder of the summer

- ▶ Submit the basic tracking decoding and histogramming code to tracking working group
- ▶ Test the VQWK ADC within CODA with a variety of trigger rates
- ▶ Complete “basic” mock data routines for the parity data stream; models of beam parameter sensitivity will not be included
- ▶ Finish configuring the JLab svn server and install the analyzer there

**All completed.**

## Short term goals:

- Set up the interface between subsystem class decoding and main tracking routines
- Develop trigger and control system diagrams for tracking and Parity DAQS . Post to DocDB
- Work on parity analyzer and mock data
- Multi-board ADC readout

We hope to recruit a graduate student and a postdoc to focus on the DAQ and the analyzer

2 grad students to work part time on tracking

Patching up money to pay the postdoc (40% there)

## Longer term plans

- ▶ Continue testing and development work for the integration mode DAQ and the VQWK ADC
- ▶ Development and coordination work for the tracking DAQ development
- ▶ Develop the parity analyzer and test with the mock data
- ▶ We hope to recruit a graduate student for Qweak who would focus on DAQ and analysis
- ▶ We are trying to find support for a postdoc to support the DAQ and analysis during the installation and running