

Transversity trigger/DAQ prepration for May test run

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- ▶ The following are the goals of this test
 - ▶ Check individual detectors and debug any problems.
 - ▶ Test and debug BigBite electron trigger including commissioning of the new gas Cherenkov detector.
 - ▶ Do a first round of energy calibration of the calorimeter using $H(e, e')p$ elastic reaction.
 - ▶ Check coincidence trigger with LHRS.

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- ▶ Calibration runs will be taken with 2 pass beam – BigBite will be at 53° and LHRS at about 30° (this is the default plan of the low Q2 form factor expt.)
- ▶ The e-p coincidence rate is expected be about 25Hz for this settings with 2uA current.

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- ▶ Finish up the BigBite front end trigger - combine with the gas Cherenkov electronics. (K.Allada, B.Sawatzky)

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- ▶ Things to do before April 1st(Hall closes for pi0 expt.)
 - ▶ Connect all the signal + delay cables to the patch panel on the DAQ weldment and make a map.
 - ▶ Connect the high voltage cables to the LeCroy 1458(existing two units) and make a clear map.
 - ▶ Spare LeCroy 1458 HV crate is available from right HRS in case of emergency(according to A.Camsonne)
 - ▶ Run all these cables from the DAQ weldment to the right side of the beam where the BigBite detector will be located.

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- ▶ All this work is expected to start this week – need help!

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- ▶ Things to do during one week down time in May
 - ▶ Connect the BigBite front-end trigger and check with cosmons.(Add a scintillator paddle on the top of the frame for cosmic trigger)
 - ▶ Setup the coincidence trigger on the floor between L-HRS and the BigBite (with Bob's help).
 - ▶ Follow what pi0 expt is doing for the coincidence setup(cable lengths already measured?)
 - ▶ Setup scaler readout for various important channels for diagnostic purposes(on the floor for the BigBite).
 - ▶ Helicity sorted scalers (for all the triggers, bcm etc..) exist in L-HRS. Do we need any on the floor - for cross check?

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- ▶ Write scripts to monitor the gas Cherenkov/calorimeter/scalers on the BigBite side.

Acknowledgment

Thanks to ..

- ▶ R. Michaels
- ▶ B.Sawatzky
- ▶ Especially all the students who helped move the cables into the Hall