

CLAS Collaboration Meeting

March 6-9, 2018

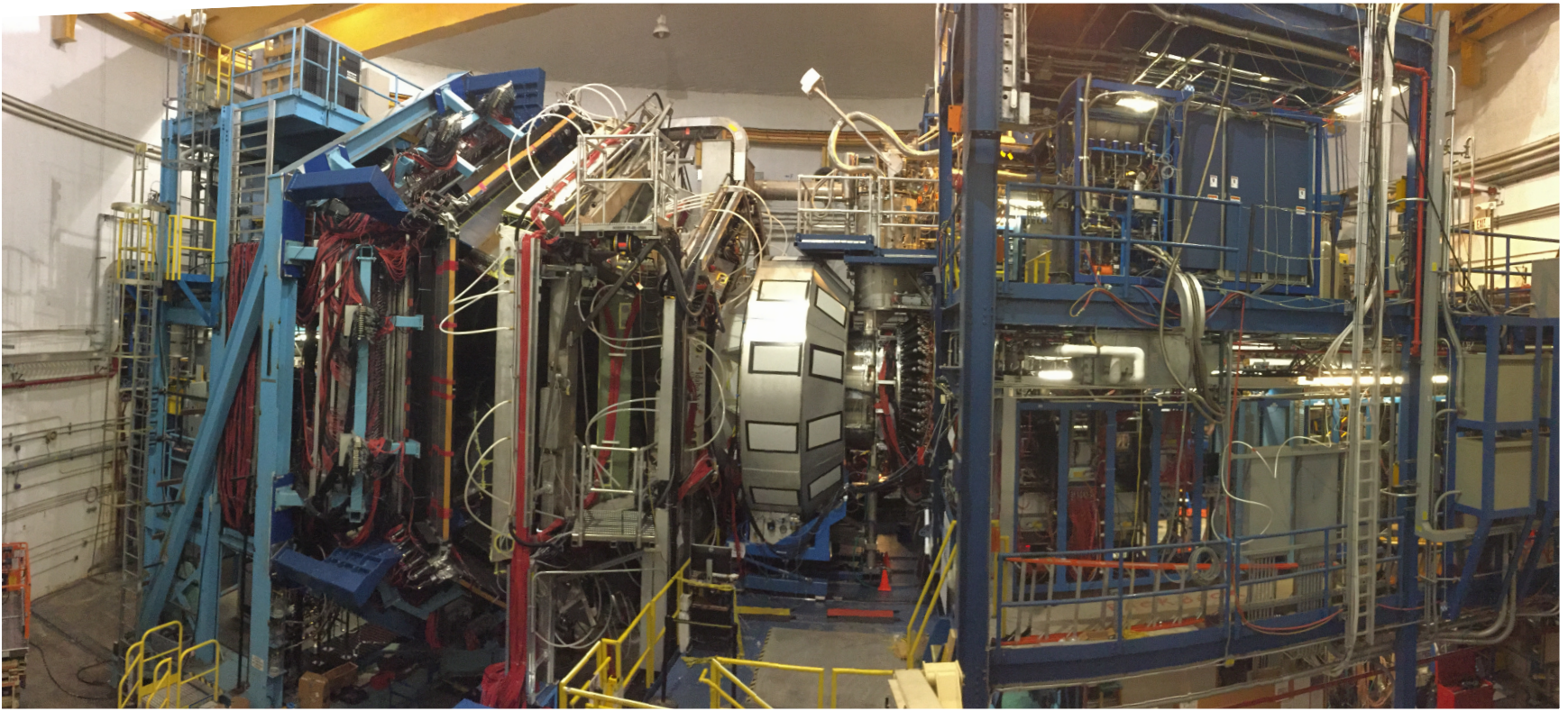


- Events since last meeting
- Collaboration business
- New CLAS publications
- Meeting agenda

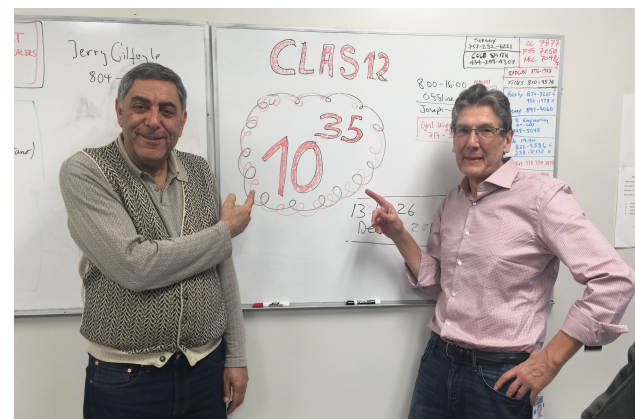
Since the last meeting...



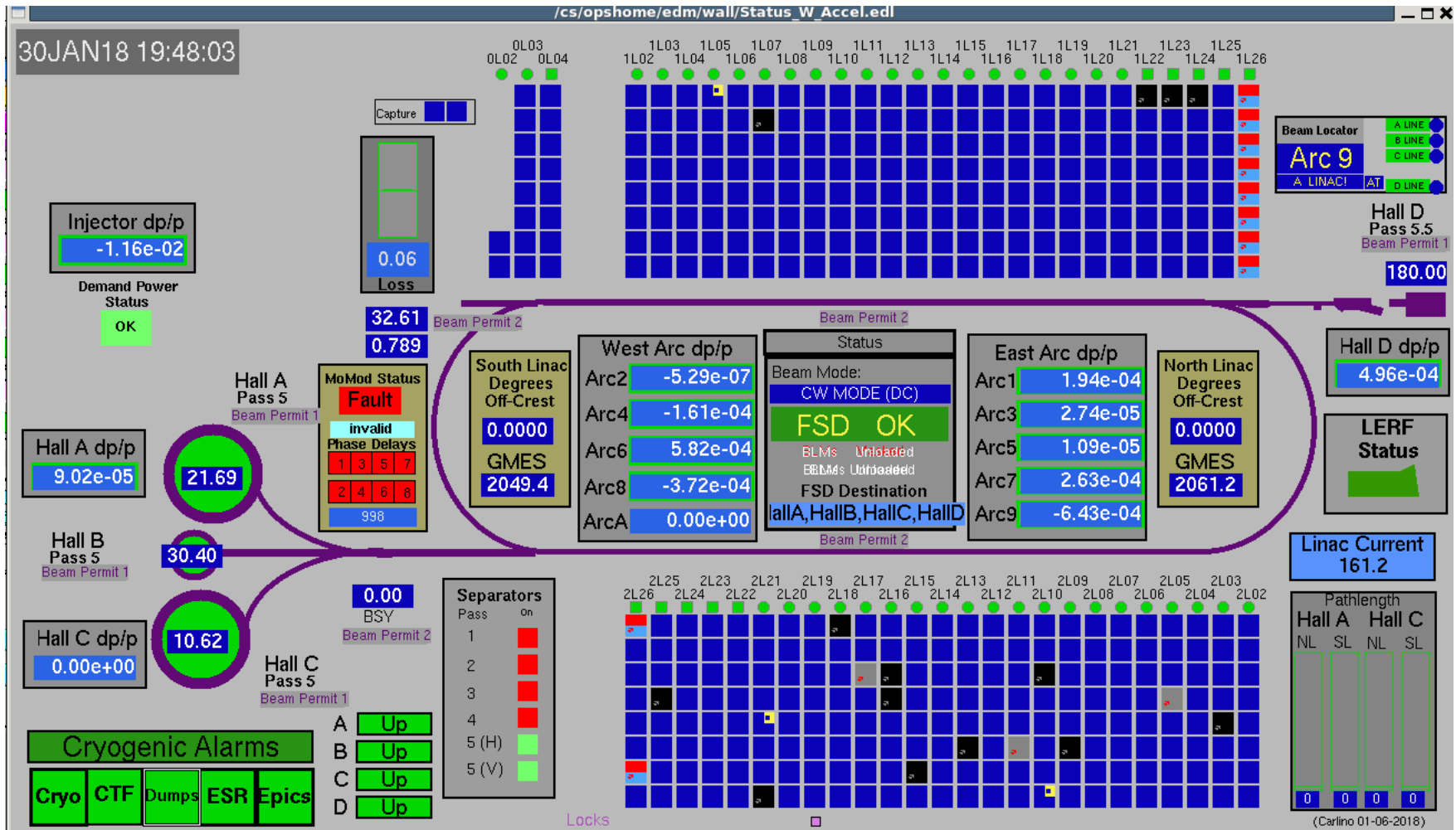
CLAS12 ready for beam...



-
- “First”
electron on
empty
target
- 180 cm

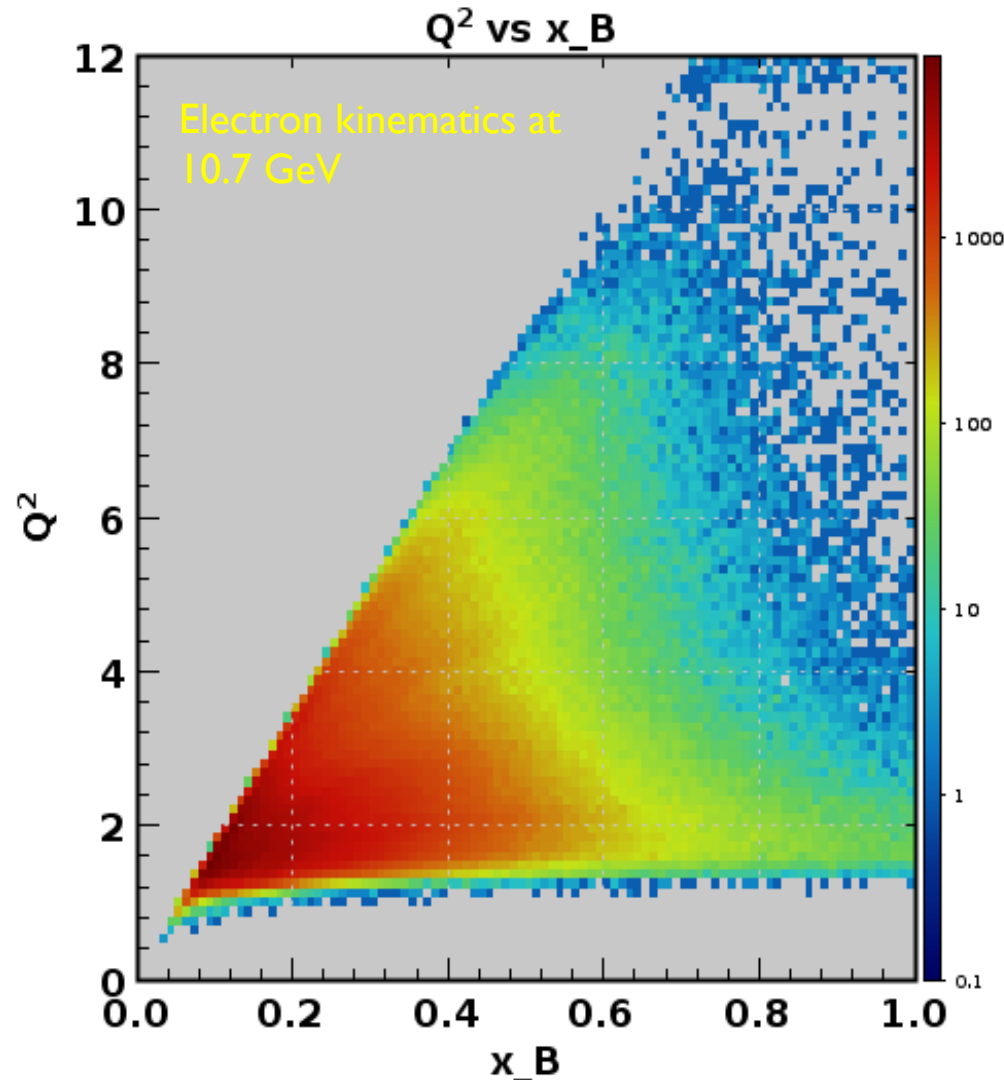


Major milestone achieved with simultaneous delivery of 5/5.5 pass beam to the 4 Halls



(Carlino 01-06-2018)

- RG-A started on February 5 and currently in progress
- Accumulate extensive data set for first physics with CLAS12
- Run still in progress: continuous effort to exploit the remaining beam time in the best way
- Focus on detector calibration and data analysis:
 - First experiment Workshop yesterday
 - Software session this afternoon
 - Joint WG session on CLAS12 analysis on Thursday
 - (+ weekly First-Experiment, Software and CalCom meetings on a regular basis)
- A lot already achieved thanks to the efforts of many but not yet time to relax...
- Support of the whole Collaboration needed to get to first physics results



Application for CLAS membership by new Institutions:

- Duke University presented by Anselm Vossen
- MIT presented by Richard Milner

Procedure:

- Presentation of the group, research interests, current and future plans, software and hardware contributions, ... to the Collaboration for open discussion
- Application to be discussed (and approved) by the CLAS Coordinating Committee
- New Institution members can apply for Term membership

Proposed Charter modification:

- Presently:
 - Limited membership requires approval by the CCC
 - Membership Committed involved only in bookkeeping
 - Membership Committee to monitor full and term but not limited members
- Proposal:
 - Require the Membership Committee to monitor the status and activities of limited members requesting periodic updates by the limited member sponsor (spokesperson of proposal or CAA)

Proposed Charter modification:

C. LIMITED MEMBERSHIP

Physicists who have an interest in and plan to work on a small fraction of the CLAS or CLAS12 proposals, or CLAS Approved Analyses (CAA), may be recommended for limited membership by a spokesperson for those particular proposals or CAA's for which his/her contribution appears to be crucial.

1. Recommendation for limited membership must be in writing and submitted to the Chairperson of the Coordinating Committee by a spokesperson for a proposal or CAA. All other spokespersons of that proposal or CAA must be informed.
2. Any individual recommended for limited membership must be approved by a four-fifths vote of the Coordinating Committee.
3. A limited member will have no voting rights and may be included as an author only on the papers which result from those proposals or CAA's for which he/she has been approved for limited membership
4. The Membership Committee will be responsible for reviewing the status of limited members, requesting periodic reports by the sponsor, i.e. the spokesperson for a proposal or CAA who made the recommendation for limited membership

Vote closing at midnight on Thursday!

- 7 new publications since last Collaboration Meeting
- 7 submitted to the journal
- 10 in the pipeline:
 - 3 in Collaboration-wide review
 - 4 in Ad-Hoc review
 - 2 Ad-Hoc review committees being formed

Papers published since October



Paper ID	Paper Title	Lead Author	Contact Person	Target Journal
2016-10	Determination of the Proton Spin Structure Functions for $0.05 < Q^2 < 5 \text{ GeV}^2$ Using CLAS	R. Fersch	R. Fersch	PRC
2017-01	Measurement of the Differential and Total Cross Sections of the $\gamma d \rightarrow K^0 \Lambda$ Reaction within the Resonance Region	N. Compton	K. Hicks	PRC
2017-05	Photon Beam Asymmetry Σ in the Reaction $\gamma p \rightarrow p \omega$ for $E_\gamma = 1.152$ to 1.876 GeV	P. Collins	B. Ritchie	Phys. Lett. B 773, 112 (2017)
2017-07	First Exclusive Measurement of Deeply Virtual Compton Scattering off ^4He : Toward the 3D Tomography of Nuclei	M. Hattawy	N. Baltzell	PRL
2017-08	Measurement of the Helicity Difference E in $\omega \rightarrow \pi^+ \pi^- \pi^0$ Photoproduction	Z. Akbar	V. Crede	PRC
2017-11	Double K^0_S Photoproduction off the Proton at CLAS	S. Chandavar	K. Hicks	PRC
2017-13	Measurement of the Q^2 -dependence of the deuteron spin structure function g_1 and its moments at $0.02 < Q^2 < 0.7 \text{ GeV}^2$ with CLAS	K. Adhikari	A. Deur	PRL

Submitted papers



Paper ID	Paper Title	Lead Author	Contact Person	Target Journal
2017-06	Semi-Inclusive π^0 target and beam-target asymmetries from 6 GeV electron scattering with CLAS	S. Jawalkar	K. Griffioen	PLB
2017-10	Measurement of the beam asymmetry Sigma and the target asymmetry T in the photoproduction of omega mesons off the proton using CLAS at Jefferson Laboratory	P. Roy	V. Crede	PRC
2017-12	Hard exclusive pion electroproduction at backward angles with CLAS	K. Park	K. Park	PRL
2017-14	Photoproduction of π^0 on Hydrogen using $e^+e^-(\gamma)$ detection mode with CLAS	M. Kunkel	M. Amarian	PRL
2017-15	Probing High Momentum Protons and Neutrons in Asymmetric Nuclei	M. Duer	O. Hen	Nature
2018-01	Differential Cross Section for $\gamma d \rightarrow \omega d$ using CLAS at Jefferson Lab	T. Chetry	K. Hicks	PLB
2018-03	EMC Effect and Correlated Nucleons: When One Plus One is not Two	B. Schmookler	O. Hen	Science

Collaboration-Wide Review



Paper ID	Paper Title	Lead Author	Contact Person	Target Journal
2017-09	Measurement of Unpolarized Cross Sections and Polarized Cross Section Differences for Deeply Virtual Compton Scattering (DVCS) on the proton at Jefferson Laboratory with CLAS, at $0.1 < x_B < 0.58$, $1.0 < Q^2 < 4.8 \text{ GeV}^2$, and $0.09 < -t < 2.0 \text{ GeV}^2$	N. Hirlinger Saylor	P. Stoler	PRC
2018-02	Measurements of $\gamma^* p \rightarrow p' \pi^+ \pi^-$ cross section with the CLAS detector for $0.4 \text{ GeV}^2 < Q^2 < 1.0 \text{ GeV}^2$ and $1.3 \text{ GeV} < W < 1.825 \text{ GeV}$	G. Fedotov	G. Fedotov	PRC
2018-04	First Measurement of Ξ^- Polarization in Photoproduction	J. Bono	L. Guo	PLB

Paper Title	Lead Author	Contact Person	Run Group
Beam Spin Asymmetry of $ep \rightarrow e\eta$ in the Deep Inelastic Regime	A. Kim	A. Kim	elf
Study of Color Transparency in ρ^0 Electroproduction off Nuclei	L. El Fassi	L. El Fassi	eg2
Photoproduction of $K^+ K^-$ meson pairs on the proton	S. Lombardo	M. Battaglieri	gl1
First results on nucleon resonance photocouplings from the $\gamma p \rightarrow p \pi^+ \pi^-$ reaction	E. Golovach	E. Golovach	gl1

Committee being formed for:

- Beam-Target Helicity Asymmetry in K^0 Lambda and K^0 Sigma 0 Photoproduction on the Neutron by D. Ho (gl4)
- The center of mass motion of short-range correlated nucleon pairs studied via the $A(e; e'pp)$ reaction by E.Cohen (eg2)

- Crucial step in the process of making our results public
- Over time, several actions (open discussion at Collaboration meetings, advisory group, ...) to streamline the process:
 - New analysis review procedure for CLAS12 with “standing committee” to follow the development of Run Group analysis procedures from the early stages
 - Standardized analysis notes
 - Ultimately, never forget that a successful review is based on the mutual commitment of authors and reviewers to collaborate in a timely manner
 - Improve communication between review committee and authors, for example by making a (virtual) meeting a requirement:
 - Recent suggestion*
 - “The authors and the committee need to meet either by video-conference or in person once after receiving the committee comments on either the paper or the analysis note to make sure the major comments are understood. They should meet again, if desired, before the authors submit their response to make sure the responses are generally acceptable to the committee”*
 - ...

- Morning talks dedicated to Lab, Hall B and Accelerator status
- Physics talk from Theory division and recent CLAS analysis
- Engineering and First Experiment runs
- Software session in the afternoon
- Physics WG parallel session and Joint session on CLAS12 high level analysis
- Business meeting on Friday morning
- DPPWG session/Mini Workshop on DVMP on Friday afternoon
- Membership Committee meeting over lunch break today
- Reception tonight!