

Continuing the Process of Setting the Scientific Priorities and Beam Allocations for Currently Approved (and Conditionally Approved) 12 GeV proposals

As has been discussed at Users Group and PAC meetings, we have delayed the assignment of scientific priorities for 12 GeV proposals in order to set these priorities as close to the start of 12 GeV science as possible. The process began at PAC35 with the prioritization of proposals in the “Transverse structure of the hadrons” category. It will continue with the prioritization of three more categories at PAC36. The set of science categories has been established, and are listed in the Appendix to this document. PAC36 will review approved and conditionally approved proposals in three more categories: “The hadron spectra as probes of QCD”, “The longitudinal structure of the hadrons”, and “Hadrons and cold nuclear matter.” Prior to PAC35 we asked each spokesperson to review these categories and the tentative assignment to a category that was made at that time. The results of that process are posted on the JLab website at http://www.jlab.org/div_dept/physics_division/experiments/ in the “12 GeV Tables of Experiments” section. We recognize that a number of the proposals have an impact in more than one category, and by this note are allowing spokespersons another opportunity to review the present assignment of their proposals and modify it if appropriate. All that is required is an email to me (cardman@jlab.org).

The Prioritization Process

As was done for the PAC35 prioritization review, each spokespersons of currently approved experiments in the categories being reviewed is being notified that their proposal will be given its scientific rating and beam time allocation at the PAC and requested to provide the a written update to their proposal and a set of three viewgraphs to be shown at the PAC “grading session” as detailed below. These documents will be due at the same time as normal proposal submissions. ***For PAC36 we will require the documents be submitted no later than Thursday, July 1, 2010.*** The documents to be provided include:

1. A brief written update on their proposal (a few pages to 10 pages maximum) to be provided to the PAC members in advance of the meeting, summarizing:
 - 1.1. the scientific case for the proposal (emphasizing developments since the written proposal that are relevant) and
 - 1.2. technical progress toward realizing the experiment.

If there have been any significant changes in the plans for the technical realization of the measurement in the proposal, these must be presented in sufficient detail that the JLab Technical Advisory Committee (TAC) can consider the changes with care and provide an updated technical report to the PAC prior to its consideration of the proposal. (Note: The 10 page limit will be relaxed in this case, and the proponents given sufficient space to provide technical details at the level of their initial proposal submission.)

As part of the PAC process, the updates will be sent to the PAC ahead of time, and the PAC members assigned primary responsibility for leading the review discussion will contact the spokesperson with any questions or a statement that there are no questions at least 1 week before the PAC meeting.

2. A set of three viewgraphs to be shown in the “open” portion of the rating session, with content as follows:
 - 2.1. The first VG should summarize the scientific case for the experiment.
 - 2.2. The second VG should summarize the data anticipated and its projected accuracy (e.g. range of relevant variables covered and the statistical and systematic errors anticipated at the nominal beam request).
 - 2.3. The third VG can be anything else the collaboration would like to add that they feel is relevant.

The viewgraphs will be due on or before Wednesday, August 18 (the middle of the week before the PAC meeting).

Spokespersons of conditionally approved proposals in the scientific categories to be rated at the PAC are hereby notified that their proposal will be considered in the rating process, but only if they resubmit their proposal and it is then fully approved by the PAC before the rating session begins (see the section on conditionally approved experiments below). ***If the proposal is not resubmitted for review at PAC36, it will be treated as withdrawn.***

Refinement of the PAC Prioritization Process

As a result of discussions following the first prioritization review at PAC35, we are adding an additional presentation to the PAC for each of the three categories being reviewed. This will be an overview/summary talk by a rapporteur to be assigned for each category. We envisage a 45 minute talk summarizing the physics of the category and putting the currently approved and conditionally approved proposals in an overall context of what aspects of the science they are addressing, how they complement/supplement/overlap other proposals. At the PAC meeting the public portion of the prioritization session will have three sections – one for each category being rated. Each session will begin with the rapporteur's summary followed by a presentation of the sets of three viewgraphs for all experiments in the category under review. *Spokespersons of each experiment undergoing the prioritization review are asked to suggest knowledgeable scientists who they would recommend as rapporteurs for the category of their proposal.* The rapporteur would, ideally, have no conflict of interest as a member of only a few of the proposals in the category or be involved in all of them. (Suggestions should be received by Monday, May 3 for full consideration). We will identify the rapporteurs well before the PAC meeting and ask them to provide all spokespersons with copies of their intended viewgraphs prior to the presentation so that spokespersons will have the opportunity for constructive criticism. The talk will, however, in the end, represent the rapporteur's judgment and thoughts.

Following this public session the PAC will continue its discussions in closed session. At least one spokesperson should be available either in person or by phone for 24 hours after the public session to answer questions as the PAC's discussion progresses.

The results of the PAC's deliberations will become public as follows: the list of scientific ratings and beam time allocations will be provided to the Hall Leaders at the PAC closeout and then distributed to spokespersons within 24 hours. The final written PAC report will be posted on the JLab website and the user community notified by email as usual.

Continuation of the Process at Future PACs

Following PAC35, the rating process will have been completed for proposals in four of the six categories. Proposals in any of these four categories coming to future PACs will be rated and given beam time allocations at the PAC to which they are submitted. This process will continue with at least one category rated at each future PAC (or possibly instead with another special PAC held to rate the two remaining categories). Now that the rating process is well underway, any new proposal in a scientific category that has already been rated will receive its scientific rating and beamtime allocation at the PAC at which it receives its approval.

Conditionally Approved 12 GeV Proposals

Prior to PAC35 proposals that had been conditionally approved prior to that PAC were notified that they were “grandfathered” and allowed to stay in the conditional category no longer than the PAC at which the scientific rating is done for their category. Further, from PAC35 forward, the rule for newly conditionally approved 12 GeV proposals is that they have two PACs to return. For now, with the norm being one PAC a year, this means a 2 year period. Once we return to two PACs/year, the rule shall remain “return within two PACs” and the period shall be reduced to one year. ***Given these “rules”, 12 GeV proposals that were conditionally approved by PACs prior to PAC35 in one of the three categories being rated at PAC36 MUST return for review at this PAC or be considered as withdrawn. Any proposal in one of these categories that was conditionally approved at PAC35 may return at PAC36 or may wait until PAC37.*** Your updated proposal is due at the laboratory by the close of business on Thursday, July 1, 2010, and you will be making the traditional 30 minute presentation of your updated proposal in the first portion of the PAC meeting. Also as usual, following the public presentation session the PAC will continue its discussions in closed session, and at least one spokesperson should be available either in person or by phone for 24 hours after the public session to answer questions as the PAC’s discussion progresses.

Prioritization of Run Groups

There are a large number of experiments (currently only in Hall B) that have been organized into “run groups”. Run groups include multiple experiments that can take data simultaneously on different and/or related physics using the same detector, target, and beam conditions. In addition to the individual experiment ratings reviews discussed above for the experiments within the run groups, we will carry out a review of the run groups themselves to establish their overall scientific priority. This will be done in a PAC session roughly one year before CLAS12 starts taking data. If similar situations evolve in the other halls we will do a similar “overall scientific priority” assignment to the run groups that evolve there.

Appendix: The Scientific Categories for 12 GeV Proposals

- 1) **The Hadron spectra as probes of QCD**
(GluEx and heavy baryon and meson spectroscopy)
- 2) **The transverse structure of the hadrons**
(Elastic and transition Form Factors)
- 3) **The longitudinal structure of the hadrons**
(Unpolarized and polarized parton distribution functions)
- 4) **The 3D structure of the hadrons**
(Generalized Parton Distributions and Transverse Momentum Distributions)
- 5) **Hadrons and cold nuclear matter**
(Medium modification of the nucleons, quark hadronization, N-N correlations, hypernuclear spectroscopy, few-body experiments)
- 6) **Low-energy tests of the Standard Model and Fundamental Symmetries**
(Møller, PVDIS, PRIMEX,