

LCLS Users' Organization and Executive Committee (UEC) Meeting

October 19, 2010

2010/2011 LCLS UEC Thomas Earnest Lee called the meeting to order at 3 pm PST.

UEC Election: Thomas announced election results; Stefano Marchesini, LBNL, was elected as the new CXI user representative. The current User Executive Committee includes:

Thomas Earnest, LBNL, Coherent X-ray Imaging (CXI) - CHAIR
Todd Ditmire, U Texas, Atomic, Molecular and Optical Science (AMO)
Phil Heimann, LBNL, Soft X-ray Science (SXR)
Hyotcherl Ihee, KAIST, X-ray Pump-Probe (XPP)
Dick Lee, LLNL, Matter in Extreme Conditions (MEC)
Jan Luning, Univ. Pierre Marie Curie-Paris VI, Soft X-ray Science (SXR)
Stefano Marchesini, LBNL, Coherent X-ray Imaging (CXI)
Martin Meedom Nielsen, U Copenhagen, X-ray Pump-Probe (XPP)
Art J Nelson, LLNL, Matter in Extreme Conditions (MEC)
Oleg Shpyrko, UC San Diego, X-ray Correlation Spectroscopy (XCS)
Mark Sutton, McGill U, X-ray Correlation Spectroscopy (XCS)
Linda Young, ANL, Atomic, Molecular and Optical Science (AMO)
Cathy Knotts, SLAC, LCLS/SSRL Liaison (Ex Officio)
Beth Wurzburg, Stanford U, Crystallography (Ex Officio, SSRL UOEC Chair)

Director's Update: Jo Stöhr opened the meeting with an update of LCLS operations and a brief discussion of plans for LCLS II, following up on the LCLS II workshop which was held on October 17. He shared some broad questions which he has been considering: Are we doing science that is really important or that impacts society? What new areas should we invest in? The plan for the next two years is stay on course, finish the six instruments, and give people time to utilize available instruments for exploring different scientific areas. Starting in 2012 we will begin to discuss which areas are particularly promising for scientific breakthroughs with the goal of investing operations funds to improve existing facilities or even build new ones.

Jo mentioned that SLAC has been working together with LBNL to develop a West Coast strategy focusing on complimentary facilities and capabilities.

Proposal Review Process: The LCLS proposal review and ranking is carried out by the Proposal Review Panel (PRP). Uwe Bergmann gave an update on the LCLS proposal review process which has been a work in progress. The PRP was expanded from 14 to 54 members, and they were divided into seven subpanels: Atomic, Molecular, Optical and Cluster Physics (AMO); Biology and Life Sciences (BIO); Chemistry (CHEM); Materials-Hard Condensed Matter; Materials-Soft Condense Matter; High Energy Density Science/Matter in Extreme Conditions (MEC); and Methods and Instrumentation. For the June 2010 round, we received 116 new proposals. The PRP met on September 13-14, 2010 with the first day focusing on discussions and ranking of proposals by subpanels. The second day involved discussion and ranking of the top approximately 30% of proposals from each panel by the panel chairs with the full PRP participating and observers from the LCLS SAC and UEC. At the end of a long day, the PRP ranked the new proposals into 7 Tiers:

Tier 1 = top 7.2%
Tier 2 = 7.3%-14.4%
Tier 3 = 14.5%-19%
Tier 4 = 19.1%-24.5%
Tier 5 = 24.6%-28.2%
Tier 6 = 28.3%-31.9%
Tier 7 = 32% and lower

Based on this ranking, LCLS awarded beam time to 21 proposals in the top 3 Tiers. In addition, upon suggestion by the PRP, LCLS included 4 proposals as user commissioning (not included in these tiers). An additional 2 proposals were awarded beam time under Director's Discretionary time.

Since the review process continues to evolve with essentially a new panel, getting the final review comments and announcing the results took much longer than expected. In the future, we expect to improve the turnaround time and to provide more helpful comments from the PRP. For the next round of proposal reviews, we also plan to clarify the review process which will generally follow this outline:

Day 1: The PRP will meet for a short plenary session with a brief update including the latest parameters from the LCLS Director, a brief 'charge' to the committee outlining the review process from the LCLS Deputy Director, and brief updates from the instrument scientists (maximum 2 slides).

The PRP will break into 7 subpanels meetings. During the panel session, the lead reviewer appointed by the panel chair will briefly present the proposal(s) assigned to them, and they will lead discussion of proposal's scientific merit. The panel will consider all proposals and develop a ranked list of their top 30% of proposals. By the end of Day 1, each subpanel chair will circulate their top 30% list to the other subpanels and to LCLS management so they can review these overnight and prepare for Day 2. (NOTE: All submitted proposals must be reviewed and ranked; none will be pulled out of the review process or set aside for facility commissioning time.)

Day 2: In the first session, the subpanels reconvene to review the top 30% proposals from each of the other panels, suggesting their own rank order and providing a 2-3 line summary of why LCLS is required, why it is important, or how it opens new areas of LCLS science. This information prepares the subpanel chair to discuss/defend their subpanels' review during the next session when the subpanel chairs convene separately to review/rank the top rated proposals. (The rest of the PRP may leave at this point or they may remain in another room to work on their final review comments to the proposal spokesperson.) The panel chairs then reconvene for several rounds of reviews until multiple tiers are agreed upon:

Round 1: Each of the 7 panels puts forth their top 'must do' proposal, briefly (in 1-2 minutes) summarized the experiment, why LCLS is important and required for each experiment. If anyone objects, they speak up at this point or these top 7 proposals stay in the #1 rank).

Round 2: Each of the 7 panels puts forth their next highest ranked proposal, briefly (in 1-2 minutes) summarized the experiment, why LCLS is important and required for this experiment, comparing each proposal against the others for the #2 rank. If anyone objects, they speak up at this point or these next top 7 proposals stay in the #2 rank).

Round 3: Each of the 7 panels puts forth their remaining top 30% of proposals on a pro rata basis (or a minimum of 1 proposal for each panel). Each panel chair briefly (in 1-2 minutes) summarizes why LCLS is important and required for each experiment. The bulk of the discussions should focus on these Round 3 proposals, comparing each against the others until ranking in multiple tiers is completed. The end result will be pools of proposals of essentially equal merit in tiers where the PRP or management have flexibility to consider giving more weight to some proposals to increase diversity, equalize access to new instruments, or open emerging areas of LCLS science. The panel chairs summarize the final review deliberations for the top 30% proposals so that LCLS can share these final comments along with the individual reviewer comments with the proposal spokesperson. Day 2 ends with a closeout session over dinner for the subpanel chairs and management.

During the users' organization meeting, some users noted that the PRP's review comments have varied considerably among reviewers and that some comments were not really informative or helpful to users in addressing deficiencies or improving future proposals. Some users requested that 1-2 samples of the best proposals be provided on the website as a template and that more information be provided to proposal teams on where they fell in the PRP's ranking decisions. LCLS management plans to clarify the review and rating criteria to improve consistency in reviews among the PRP. Also, LCLS management will request that the PRP try to provide more constructive review comments. Users who feel that the review was not accurate may appeal the ranking and request that their proposal be reconsidered by the PRP during the next proposal cycle.

Many users wanted to know which proposals had been approved by the PRP and scheduled to date, and this information is posted on the LCLS schedules webpage.

Some users suggested that the PRP members should have defined terms and that members should rotate off the PRP every 2-4 years to keep members fresh. There was also a suggestion to rotate terms so that experienced members are woven in with the terms of freshmen for more continuity. It was suggested that the role of panel chair should also rotate.

A few users asked questions about how potential conflicts were handled with regard to the PRP and Uwe responded by stating that it was nearly impossible to avoid potential conflicts since the scientific community is rather limited at present; however, PRP members who have a relationship with a proposal will leave the room when those proposals are discussed and ranked. The panel chairs are responsible for monitoring this within their panels, and the PRP chair for controlling this overall.

Dick Lee, who attended the September PRP meeting as an observer for the UEC and SAC, noted his general perception that 'the process is fair and transparent.'

Some users asked if beam time should be set aside for new investigators, but many people felt that the collaborations are so large that teams could manipulate the system, e.g., list a new user as the proposal lead (spokesperson) to access time set aside for new investigators even if the new user has ties to existing user groups.

Some users requested that management consider long-term or approved program proposals that could carry over to subsequent review and scheduling cycles. Given the early start up phase, the need to set aside time for bringing up new instruments, and the current capacity limitations, Jo and Uwe felt that continuing to require separate proposals was the most fair process for the near future. This could be

revisited at a later date, particularly since we could have four times the amount of beam time with four independent stations in ~2017.

Some users noted that the schedule was very compressed with very little time for instrument set up (set up comes out of 'user' shifts instead of 'machine' shifts). Since the endstations will get increasingly more complicated and require more maintenance, some time needs to be set aside to realign and ensure that everything is working correctly before user experiments really begin. Users requesting to change the set up should view this time as a 'tax' that is necessary to accommodate their requests for a new configuration.

The meeting adjourned at 5 pm and was followed by a joint reception for the LCLS and SSRL user communities.