

LCLS UEC Meeting Minutes: 2022-05-02

Present: E. Biasin, M. Mitrano, T. Gorkhover, B. Ofori-Okai, B. Mooers (for G. George), C. Knotts, D. Oberthuer, J. Kern, M. Trigo, M. Dunne, N. Hartley, P. Jones, P. Sun, R. Sension, Y. Cao, G. Doumy, L. Conradson

Absent: M. Khalil, E. McBride, A. Marinelli, D. Rolles, C. Rajendran

Guest: S. Boutet (LCLS Operation Director)

Mike Dunne's facility update:

- Showed picture of Hutch 2.2 following install of long arm of QRIXS instrument (from TOYAMA). Getting ready for commissioning in next run.
- Good progress on LCLS super conducting accelerator. Following original cool down to 4K, further pump down to reach 2K took place, and achieved stable operation in April.
- First light to beamlines still anticipated in November 2022.
- Discussed the difficult funding situation regarding the transition to operation of LCLS-II. LCLS-II is a great scientific upgrade, which operationally is adding to the capabilities, not replacing them. This means that operating the entire facility is going to require more personnel and more funding. Formally, this should be addressed after the project reaches CD-4, which will happen in 2024. But the project is finishing early (during 2022), so operations during FY23 presents a great challenge, requiring to find a way to bridge funding to keep operating at the requested level (i.e. run both accelerators and both undulator lines at the same time)
- While there are LCLS-specific concerns and details, there is an underlying funding situation for all the DOE light sources, some of which are going to undergo their own upgrades. There is a recognition that a joint effort has to be made for all the facilities to address the need for enhanced funding together.
- On the facilities side, a new metric to assess performance of light sources has been put forward, with the aim of replacing the old metric of accelerator availability (often north of 95%) by an instrument utilization metric. For LCLS, this considers the total amount of User operation (defined by beam being sent to an instrument) compared to the total amount that would have been possible in principle using both undulator lines at the same time (sharing accelerator output for now, soon using different accelerators) or multiplexing hard x-ray pulses. Using this metric for LCLS, the instrument has been utilized in the last two cycles at around 65%. For synchrotrons, this would cover cases where entire beamlines cannot operate full time for lack of staff. This should help illustrate the discrepancy between staffing levels and needs in a way the previous metric did not.

Follow-up discussion:

On the users' side, there was a recognition of the need to engage Congress on behalf of the light sources to help bring to the forefront the need for additional funding across the board. People with DOE funding have to be very careful not to use any government resource when engaging

Congress, but instead must use non-federal resources or personal time. SSRL UEC has started a draft letter, and the UECs of all light sources will meet very soon to establish messages to send to their users, explaining the situation, and also providing useful information such as how to reach elected officials, which are the best ways to do it, who in particular could be most useful for the appropriation decisions ahead.

Update on Users Meeting:

- A draft schedule has been produced based on the proposed workshops, grades, historical attendance, number of parallel sessions limit, and others. UEC members were given a link to look at the draft and provide comments as soon as possible to help workshop organizers finalize speakers lists.
- Plenary speaker. The list of submissions was discussed, and if no more submissions are given, a voting form will be sent to the UEC members to vote before the end of the week, when SSRL and LCLS users meeting organizers meet to finalize the schedule.

Possibility of introducing a new award at Users' Meeting, specifically for LCLS staff:

- Examples exist at other light sources, e.g. Lytle award for SSRL (although not limited to staff) or Shenoy award at APS (for beamline science achievements).
- Some discussion regarding whether it should be a scientific award, or a larger 'appreciation' reward. Either way, there is a consensus that it should at least include all who scientifically make experiments possible (beamline staff, accelerator scientists, sample delivery specialists, laser scientists...).
- Could be seen as a way to complement the young investigator award that had a majority of nominations from inside SLAC last year.
- Financial support can come from LCLS management.
- Expect it to follow usual template: nominations are open from everyone with final vote coming from UEC.