

LCLS UEC Meeting Minutes

April 26th, 2024

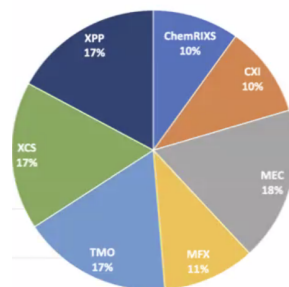
Present: Matteo Mitrano, Leilani Conradson, Nicholas Hartley, Chitra Rajendran, Mike Dunne, Margaret Doyle, Rebecca Boll, Artem Rudenko, Natalia Powers-Riggs, Silvia Pandolfi, Uwe Bergmann, Siqi Li, Brandon Tan, Cathy Knotts, Paul Jones

Absent: Alfred Zong, Samuel Teitelbaum, Elisa Biasin, Mariano Trigo, Ben Ofori-Okai

Director's updates - Run 23 PRP

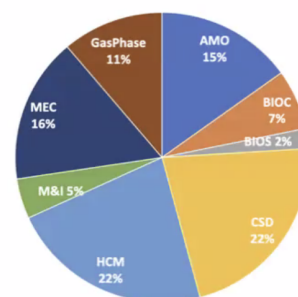
- Proposal results are still pending. Received 152 proposals (of which 70% requested standard config) versus 177 in Run 22.
- For the first time, PRP included a gas phase chemistry panel to relieve the burden on the chemistry PRP process.
- Significant interest in XPP, although this will be closing for LCLS-HE upgrade starting in December.
- Funding agencies want up to 50% of MEC experiments about Inertial Fusion Energy; 31% were described by the proposers as relevant to this scope.
- Significant growth in proposals asking for less than 5 shifts, some of which are DSC (data set collection)
- M&I: proposals that seek to demonstrate a new effect are ranked low both by disciplinary panels and by the M&I panel. This used to be a popular kind of proposal, but is now difficult to get time - are demonstration experiments something we want to encourage, and if so, how?
- Bio (split between crystal and solution) is at 9% and is shrinking. There is the need for work to attract again the bio community to XFELs
- Campaigns: 8 ongoing, and 3 are in bio. Maybe bio campaigns are the cause for the drop in bio proposals? How does the PRP rank the output of the campaigns?
- Range of impression from panels about the quality of proposals: one was really pleased while another had trouble putting proposals in the top tier.
- Other update: XLEAP has been extended to hard x-rays with 100-150 as single spikes. This new capability is available and requestable now.

Split by instrument



Note: XPP upgrade for LCLS-II-HE starts in December!

Split by panel



Notes:

20 proposals separated into a new "gas phase chemistry" panel

Within MEC, 9 proposals (31%) are IFE

General discussion

Bio discussion: If you add the campaign proposals and the bio proposals, the number is around 15% which is still low. One obvious factor has been the explosion of cryoEM. A possible outreach message is that XFELs allow you to measure ambient (room temperature) structures, which are complementary to the low temperature ones of cryoEM.

There is a perception that it is too difficult to do science at the XFEL, or to get beamtime, with a misconception about what constitutes success. People still remember the high demands for sample amounts in SFX, which were a tall order for many groups, hence there is ground for outreach. A good moment for outreach is the users' meeting, as both XFELs and synchrotrons are facing similar issues.

LCLS-X and draft BESAC feedback: LCLS-II-HE, the HE Low Emittance Injector, and LCLS-X are all listed as 'absolutely central' to the BESAC plan going over the next decade.

- HE is ready for CD 2 / 3 in May
- LEI waiting for RF gun prototype tests, planned for 2025
- BESAC states that LCLS-X needs to be approached with urgency, with emphasis on the possibility of automated/self-driving experiments, and the associated need for new training and outreach to the user community

FESAC report (relevant to MEC-U) will be released next Tuesday, and the UEC plan to talk to the leaders of the MEC-U project over the summer.

Users' meeting workshops: Chitra circulated a list of the workshops, seeking comments from the UEC. We need to suggest modifications, avoid duplicated efforts, and highlight missing areas. For instance, can the workshops be broadened to increase their appeal to a broader community? The proposers' teams might not be able to assess the full picture.

For workshop speaker, the UEC is generally very hands-off, but for plenary speakers, who address the whole conference, the final decision rests with the UEC.

Dashboard for Users' meeting organization (including workshop suggestions):

<https://docs.google.com/spreadsheets/d/1ehQWKDIKGTivlgOfTCaoy8EXhi6L3zQzxv-0i2ytCSE/edit#gid=0>

Plenary speakers: AMO is missing in terms of plenary speaker representation over the past few meetings, although we have had e.g. Young Investigator Award speakers from that area.

In terms of securing desirable speakers, we would like to invite someone as soon as possible. Chitra will ask for suggestions and send round a voting form in mid-May.

Young Investigator Award: Nominees for the Young Investigator Award, LCLS Recognition Award and new UEC members will be requested in May. This is open to all users, but UEC members are encouraged to put forward nominations, as people who are well-connected in their scientific areas.

Feedback from prior Users' meetings:

<https://docs.google.com/spreadsheets/d/12QHYdXRHNMTyQHsOQIEeP-1h6EZcJNqAfluZo5gsvbU/edit#gid=1892488640>

Last time we had sessions with Dava and Linda Horton. There has been a session between the UEC and DOE. How do we want to structure the meeting with DOE and who to invite? Linda Horton has been promoted and BES is now led by Andrew Schwartz.

We need to improve the attendance of the UEC meetings. For future meetings, we will plan to send a reminder and a rough agenda one or two days before.