

LCLS UEC Meeting, January 7, 2016

UEC: Christian Bressler, Petra Fromme, Gianluca Gregori, Ross John Harder, Steve Johnson, Nina Rohringer, Daniel Rolles, Richard Sandberg, Ilme Schlichting, Eddie Snell

LCLS: Mike Dunne, David Fritz, Elizabeth Goodwin, Nicholas Kelez, Amedeo Perazzo, Bill White

1. LCLS Update

1. MFX First light next week 12 Jan. User experiments scheduled for Run 13 (~July)
2. Deadline for Run 14 is coming up (11 Jan), moved back one further week following user request (and 1 month in total)
 - This puts greater pressure on the PRP process to complete the reviews in time, but is seen to be a better compromise than previous timeline
3. As noted when we last met, we are planning for ~50% increase in number of experiments in FY2016 compared to 2015. This is about half due to extended run time (through the summer), and half due to implementation of "standard configurations"
 - At the same time, there is no new money for experiments
 - This of course means there will be a need for more streamlined delivery. Lots of activity underway internally. But externally with the user community there is a responsibility also. I recently sent out the "experimental configuration" spreadsheet to all spokespersons for Run 13, to identify their priority requirements as early as possible - and at the latest by 20 Jan. This will be a critical part of our future planning, with serious consequences for those who are unresponsive - their experiments will not receive due preparation; will not be able to cover their full set of priorities; or could even be cancelled.
 - Ilme: experience is that the form is OK for standard experiments, but difficult for non-standard experiments. This is undoubtedly true. From LCLS point of view, the main desire is to

start the detailed planning conversation, and the spreadsheet is a vehicle for this. The main problems will be where there isn't sufficient early dialogue or response.

- For Run-14 we will start the questionnaire process before the scheduling, to inform the optimum number of experiments to be scheduled.
4. We are looking to enhance our data systems infrastructure, tools and techniques. Issued consultation document on our plans recently. To address areas of shortfall, and also to prepare for LCLS-II. (Amedeo)
 - Short-term (1y): (i) provide users with ability to run data analysis at NERSC, (ii) improve online fast feedback layer, to address MPI multi-processing capability
 - Longer-term strategy issued for consultation
 - Petra: priority for running experiments; scratch space removed without notice [Amedeo - scratch will always be at risk, due to its nature]
 5. We recognize that the FEH is poorly served at the moment with regard to support lab space. There are 3 levels of solution we are assessing - and will seek user input on options.
 - Seek input of detailed functional requirements from the users
 - There is the option to reconfigure the mezzanine, and put support labs up in this area
 - There may be options to refurbish 750
 - On the 2018/19 timeframe there is the PSLB, which offers substantial opportunity for biolab space
 - temporary lab space
 6. LCLS-II
 - Progressing well
 - CD2/3 review in December went well
 - ESAAB expected by March
 - Full funding by Congress, at 200M\$ this year

- The next 3-6 months will be the conceptual design phase for the new SXR instruments envisaged for the NEH for LCLS-II.
 - For first light this includes (i) the high field AMO and dynamic reaction microscope area (hutch 1); (ii) the soft x-ray spectroscopy area
 - Subsequent 2 areas are: (iii) high resolution RIXS, (iv) tender x-ray imaging/spectroscopy areas
 - Getting the scope of these areas right - and the appropriate suite of detectors and other instrumentation will be critically important. This conceptual design phase is the most important with regard to community input.
 - Online page with lead and details, and discussion page

7. LCLS-II-HE

- In the Omnibus Bill, Congress directed DOE to define its next 3 to 5 priority facility developments, with a deadline of 180 days. In response, Cherry Murray has tasked BESAC to look into the potential impact of 5 options, including LCLS-II-HE
 - This is an energy upgrade to LCLS-II, allowing extension in the high rep-rate beam to energies beyond 5 keV (roughly 12 keV)
 - There may be other opportunities for extensions that are consistent with this
 - We will pull together a detailed case over the next 2-3 months, to be reviewed by BESAC

2. LCLS/SSRL Users' Conference 2015 feedback

1. The conference was scheduled the same week as ALS
2. Users did not turn up for the joint discussion at the end of the meeting. It should be scheduled after the last lecture and followed by the reception.
3. The formatting issue with the candidates' bios on the election webpage is being addressed in the portal improvement project.
4. Improvements will be made in the check-in process.

3. LCLS/SSRL Users' Conference 2016 planning
 1. Need to set a deadline for the topics and encourage a broader range of topics.
 2. Conference dates will be discussed at the closed UEC meeting on January 21, 2016. SSRL has a preference for the last week of September. Vice Chair needs to be elected.
 3. Need volunteers for a planning sub-committee.
 4. A request was made for a schedule of the UEC meetings and deadlines.
4. Other topics
 1. Experiments scheduled over holidays
 - Guest House closed before beam time ended. We will look into the option of blocking rooms for users during graduation.