LUXE: organisational aspects

Beate Heinemann (DESY and Univ. Freiburg)

Dec. 7th 2017

DSF Proposal

- Very strong support from XFEL directorate
- Stated time commitments:
 - Beate: 25% (detectors)
 - Andreas: 10% (theory)
 - Anthony: 30% (theory)
 - Matthew: 30% (detectors)
 - Jenny: 10-20% (detectors)
 - Evgeni: 20% (beam line)
- Have received positive confirmation that DSF proposal successful!
 - Money starting Jan. 1st 2018
 - Need to hire postdoc ASAP

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Dear Beate,

Thank you very much for your letter. The XFEL Management strongly supports your proposal. It would open up a new avenue of Science that could be performed at European XFEL. It would be highly interesting to exploit the limits of quantum electrodynamics using the electron beam and a high power laser and reveal fundamental new insights in quantum mechanics.

We would be very interested in seeing the outcome of the design study and could help and assist with eventual practical aspects. We are currently starting a strategy process including the future use of the SASE4 and SASE 5 tunnels and the proposed project is highly welcome.

Best wishes,

Robert Feidenhans'l

Meetings

- Workshop next summer at DESY (2 days?)
 - Possible dates:
 - May 28/29, May 31/June1, June 18/19, June 21/22, June 27-29, Aug. 8-10, Aug. 13-17, Aug. 20-23
 - Goals:
 - Gather theorists to explore/elaborate physics case
 - Could have one additional "theory only" day if needed?
 - Gather experimentalists to discuss feasibility and gauge interest, e.g.
 - David Reiss (SLAC) and Thomas Koffas (Carleton) from original E144 experiment
 - Halina Abramowicz and Aharon Levi from Tel Aviv University
 - ...?
 - Discuss time scales, for proto-collaboration to write "Letter of intent"?
- Start regular monthly meetings now
 - E.g. Thursdays 10-12? Or make doodle each time?

Work areas

- The following areas seem natural
 - Theoretical calculations
 - Beamline simulation
 - Detector simulation
 - Laser

Miscellaneous

- Meeting with XFEL director tomorrow afternoon
- Need to find out planned shutdowns to have target for installation date(s)
- Need to hire postdoc for simulation asap
 - Am looking at DESY fellow pool. If no adequate candidate have to post the job
 - Any good candidates anyone knows? (Ideally have knowledge of beam transport and/or Geant4)
- Laser seems to be most difficult and expensive part
 - See Ingmar's talk