

Sources Subgroup Summary, Dec.3 & 7.2020

K. Yokoya, for IDT-WG2 Dec.15

- There have been 2 meetings since the last WG2
- Dec.3 Special meeting on possible JLab participation for positron source
 - ✓ Participants: Masao Kuriki, Hitishi Hayano, Gudi Moortgat-Pick, Joe Grames, Kaoru Yokoya, Steffen Doeber, Shin Michizono, Phill Burrows, Andy Lankford, Sabine Riemann, Peter Sievers, Kathy Machie, Dinh Nguyen, Vitaly Yakimenko
 - ✓ Indico <https://agenda.linearcollider.org/event/9010/>
 - ✓ Introduction (Kaoru Yokoya): survey of undulator and e-driven
 - ✓ Discussion on undulator scheme
 - JLab may contribute on QWT or Flux concentrator of long pulse
 - See Peter's file in the indico page for the latest design of undulator scheme
 - Shorter pitch undulator, several labs interested. Problem: possible in 2 years?
 - Long undulator section may cause difficult orbit correction?
 - Interference between FC and magnetic bearing?
 - ✓ Discussion on e-driven scheme
 - Target: Is any vacuum spike seen? Found but much less serious than LLNL
 - Flux concentrator cooling: development started in a company in Tohoku.
 - Flux concentrator: CERN can contribute (Steffen)
 - Capture cavity: heavy beam-loading.
 - Meeting at JLab on the Pre-Lab issue planned on Dec.15. Will discuss on this issue. Bob Rimmer may say something.

➤ Dec.7 6th Regular meeting

- ✓ Participants: Masao Kuriki, Hitoshi Hayano, Gudi Moortgat-Pick, Joe Grames, Kaoru Yokoya, Steffen Doeber, Shin Michizono, Phill Burrows, Andy Lankford, Sabine Riemann, Peter Sievers, Mikhail Zobov
- ✓ indico: <https://agenda.linearcollider.org/event/9011/>
- ✓ Final meeting on the undulator source
- ✓ Gudi presented the latest version of the final document (uploaded in the indico site)
 - Feasibility about the focusing device
 - What is needed for feasibility demonstration?
 - Is a computer design enough?
 - Responsibility of the proponents, after all
 - Target
 - Is it necessary to construct a model? Not necessarily
 - Magnetic bearings: not identical to commercial products, but can be done. Not a feasibility issue
 - Photon dump: To be included in the BDS/DR/DUMP subgroup
 - Target maintenance: Many common technologies with e-driven. Work package will be absorbed into e-driven section
- ✓ Discussion on the List item table (Excel file)
 - Confirmation of the Item list

➤ Next meeting

- ✓ Dec.21 23:00 JST, 15:00 EU, 14:00 UK, 9:00 EDT
- ✓ Topics:
 - Final discussion on the electron source (presentation by Joe)
 - Final touchup of all the documents (electron, undulator, e-driven)