Sources Subgroup Summary, Oct.12.2020
K. Yokoya, IDT-WG2 Oct.20

- Participants: M. Kuriki, H. Hayano, G. Moortgat-Pick, J. Grames, K. Yokoya, S. Michizono
- Joe gave a talk about the PES (Polarized Electron Source) technology. This time on the photocathode (201012_Grames.pptx).
  - ✓ Latest technology
    - Strain-compensated SLSP (Strain Layer Superlattice)
    - Diffracted Bragg Reflector SLSP
    - Reached high Q.E. (2-6%) and high polarization (84-90%)
  - No commercial vendors yet
  - Many studies on-going/planned for various projects
  - New 2-year projects in US funded

Discussion

- Different parameters for various projects. Is the charge N=3x1010 for ILC possible?
  - ✓ N for JLab is low, but no fundamental limit on N
- Readiness of photocathode.
  - ✓ Is the present technology sufficient for ILC?
  - ✓ ILC would not need a dedicated study. Join on-going R&D plans, e.g., EIC (Electron-Ion Collider, BNL).
- Vendors
  - ✓ ILC can produce cathode by itself? No mass-production

AWLC parallel session plan

- 4 talks followed by discussions scheduled
  - ✓ Tasks IDT and post IDT (pre-ILC lab.), K. Yokoya
  - ✓ Undulator e+ source Summary, G. Mootgat-pick
  - ✓ E-Driven e+ source Summary, T. Omori
  - ✓ Electron source Summary, J. Grames (will be given by M. Kuriki)
- discussions on WBS

Next meeting on Oct.26 (Mon)
22:00 JST, 14:00 EU, 9:00 EDT