

Report from Positron Source Working Group

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2017.2.22 TCMB

Positron Working Group

- Positron WG formed under Shin Michizono (LCC sub-director)
 - Another WG formed for CFS related to staging, lead by H.Hayano (250GeV first stage)
- Charges (from Shin)
 - Evaluate undulator? Conventional? At 250GeV CM
 - Evaluate technical difficulty, cost (based on TDR), commissioning
 - Submit final report by June 2017 including
 - essential R&D in 2018-19
 - proposal of positron scheme
- Members
 - Germany
 - Andriy Ushakov, Gudrid Moortgat, Sabine Riemann, Peter Sievers, Benno List
 - Japan
 - Tohru Takahashi , Tsunehiko Omori, Masao Kuriki
 - Kaoru Yokoya (chair), Toshiyuki Okugi, Akira Yamamoto
 - US
 - Wei Gai
- No meeting yet

What to do? (My understanding)

A) Make a plan of R&D for FY2017-2019

- Main target: Answer to Nomura triangle issues
- Include cost estimation for the R&D
- Deadline: ~June this year
 - Budget request for JFY2018 by summer this year

B) Consistent design

- Including
 - Undulator: target, shielding of target region, target replacement scenario, photon dump
 - e-driven: target, full simulation including transient loading, cavity cooling, target replacement, cost, etc.
- To the level which is sufficient for the central region group to discuss about the electron-side BDS tunnel
- No clear deadline but hopefully by summer-autumn

Discussion within KEK

- Michizono, Yamamoto, KY, Omori, Kuriki (later Urakawa, Takahashi)
- KEK budget situation
 - Minimum amount in JFY2017 (starting Apr.2017)
 - Significant budget might come in JFY2018-19
 - Must request the budget summer this year
 - It is not reasonable in this budget request to have 2 parallel schemes
- KEK should be active for the baseline undulator scheme
- Should finish e-driven study within JFY2017
 - Target study needs ~100k\$ (1\$=100yen)
 - For other components, simulation study is enough if we restrict to 1312 bunches. Can extend to JFY2018 (no money needed).
- Must request budget of JFY2018-19 for undulator scheme. ~500k\$???
 - Main theme to be discussed in the issue A)
 - Magnetic bearing, Ti-Cu joint,
 - Engineering design