

Draft: Minutes of ML-SCRF Technology Meeting (100310)

Date & Time:

14:03-15:00 GMT, March 10, 2010, via Webex.

Participants:

R. Geng, Y. Yamamoto, H. Hayano, N. Ohuchi, T. Peterson, C. Nantista, A. Yamamoto, M. Ross, N. Walker, W. Bialowons, N. Toge, R. Kephart, T. Shidara

Presentation files are available at the following Indico site:

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4479>

1) Reports from Project Managers

Akira opened the meeting by stating that he would cover PM report, Group Leader's report and the arrangements for the SCRF parallel sessions at the Beijing GDE meeting today.

- **Meeting plan in 2010**

There will be an IPAC satellite meeting on industrialization on May 23 and Jim Kerby is taking care of session arrangement together with Akira.

In the next AAP review in summer, SCRF issues will be main topics; such as the R&D status of the S1-Global and gradient decision. We need to start the preparation for this review.

- **PM Monthly Report**

Akira asked kind cooperation to SCRF technical group leaders to prepare materials for PM monthly report. Due date is 5th in every month, and each should contain 1/3 ~ 1/2 pages of relevant monthly activity.

- **FLASH 9mA workshop**

Marc reported that FLASH 9mA workshop was held at DESY from February 22 till 24. FLASH 9mA is a collaboration of 4 labs; SLAC, FNAL, KEK with DESY. Cryogenic load issue is not yet fully resolved. Akira mentioned that further studies on operation margin and operability at the FLASH 9mA collaboration might be important for the ILC design. (Visit the workshop site; <https://indico.desy.de/conferenceDisplay.py?confId=2576>)

2) Reports from Group Leaders

- **Cavity Gradient**

Rongli Geng reported that the KEK cavity with EP process under low current density condition reached the field gradient of 38 MV/m. The Ichiro-7 cavity is scheduled to retest at J-Lab. Their next Cavity Group Webex meeting will be held next Tuesday (March 16).

(See the site; <http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4477>)

- **Cavity Integration**

Hitoshi Hayano reported that slide jack tuners for KEK cavities, where the tuners locates in two different positions (center and end), were waiting for assembly work at KEK.

- **Cryomodule**

Norihito Ohuchi reported that they had their S1-Global Webex meeting yesterday. (Presentation files of this meeting were posted at <http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4463>.) Assembly of S1-Global Module-C has almost finished. They are planning to insert the cold mass into the vacuum vessel and move it into the STF tunnel this week. KEK four-cavity string went out from the clean room and assembly of Module-A will begin in April.

- **Cryogenics**

Tom Peterson had no report to present, but Akira thanked Tom for his help during Akira's stay in FNAL last week concerning the issue of thermal shielding when KEK plans to operate the thermal shielding at 80K by liquid nitrogen first and then after move to 40K by helium gas at STF-2.

- **HLRF**

Akira announced that Chris Nantista would become a deputy group leader of HLRF group to assist Shigeki's role. This is because C. Adolphsen has a heavy role in SLAC now and he doesn't have enough time for the GDE HLRF group. Since the R&D works for DRFS and KCS are key issues and increasing in TDP-2, having two group leaders from SLAC and KEK is inevitable in this phase.

- **MLI**

Akira commented that C. Adolphsen would continue his role as the MLI group leader to cover the beam-dynamics, quadrupole issues, and other Main Linac Integration issues. Last week at FNAL, Akira participated in a technical review on R&D work on SC quadruples in the cryomodules, and discussed the issues

on conduction cooled split SC Quadrupole with Jim Kerby, Mike Harrison and Bob Kephart, Peter Garbincius, Nikolay Solyak, and Vladimir Kashikhin, Nikolai Andreev, Mike Lamm, and Marc Ross. The presentations are available at: <http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4465>

3) **SCRF Session Arrangement for the Beijing GDE (ILC10) Meeting**

Hitoshi Hayano gave an outline of the SCRF parallel session arrangement for the upcoming Beijing meeting and conveners of each session presented the details.

- **Tunnel Layout and HLRF (C. Nantista)**

The topic of “Klystron Cluster Equipment” will be presented by C. Nantista instead of C. Adolphsen and the first half afternoon session of HLRF will be also a joint session with CFS.

- **MLI**

Akira mentioned that the operational margin related to the field gradient choice will be included and the issues of conduction cooled SC Quad will be also discussed in this session.

- **Cavity Gradient (R. Geng)**

The topic of “Update on global cavity database and yield evaluation” will be presented by Yasuchika Yamamoto on behalf of C. Ginsburg. The treatment of the 2nd EP process in the cavity gradient database will be included in the discussion.

- **Cavity Integration (H. Hayano)**

R. Geng will summarize the cavity gradient R&D and the topic of “Status of XFEL module assembly facility at Saclay” will be presented by O. Napoly via webex. Bob Kephart commented and Marc supported to include the discussion what kind of outputs and experiments we should expect from the S1-Global and the NML CM1 performances for the ILC. Marc asked Bob to report on the horizontal test system (HTS) performance, results and program in conjunction with his NML report and he agreed to include these in his report. Akira proposed to extend the NML status slot a bit and to have discussions at the end of the session.

(Off-line, Andrei Seryi proposed to have discussion on double-repetition issues and the slot of 28th 17:00-18:00 will be used for this.)

- **Cryomodule (N. Ohuchi)**

The status and test issues of the S1-Global will be discussed.

- **Industrialization (H. Hayano)**

DESY can't contribute to the summary at this critical stage but Akira will include it in his summary talk at an IPAC satellite meeting on industrialization. Bob Kephart will present the current cavity and cryomodule production status at FNAL.

Marc commented that as it was described in his recent mail to the conveners, the last half session of March 29 is a GDE plenary, and R&D plans and feedback from each technical group are expected to be discussed based on the SB2009.

Marc asked Hitoshi to put the SCRF agenda to the Indico site of the ILC10 GDE meeting and Hitoshi would ask Maxine to upload them. He also asked Hitoshi, (later in off-line), to add a talk on the FLASH beam test and plan in the session. Akira fully supported it.

4) **Further Plans and Meetings**

Next ML-SCRF Webex meeting: April 7, 2010, 13:00- GMT (to be confirmed).

GDE meeting: March 26-30, 2010 (Beijing)

<http://lcws10.ihep.ac.cn/>

TTC: April 19-22, 2010 (FNAL)

<http://conferences.fnal.gov/ttc10/index.html>

IPAC: May 23-28, 2010 (Kyoto), and a satellite meeting on industrialization on May 23.

<http://www.ipac10.org>