Minutes of the 48th "ILC-CLIC e+ studies" meeting

Date: 5th (Thu.) June, 2014, 15:00 Jpn (Time slot (b'))
(b')15:00(Jpn), 9:00(Ukr), 8:00(CET), 1:00(US-IL), 23:00*(US-CA)
 (* In US-CA, it is the previous day)

A part of Attendees (whom Omori was able to hear the voices):
Louis(CERN), Eugene(NSC-KIPT), Friedrich(DESY), Sabine(DESY),
Andriy(Hamburg), Felix(TH-Wildau), Peter(CERN), Wei(ANL),
Wanming(ANL), Song(IHEP), Seimiya(Hiroshima),
Takahashi(Hiroshima), Urakawa(KEK), Yokoya(KEK), and Omori(KEK)

Agenda:
1. Target Stress Analysis: Song-san
2. Undulator-Conventional footprint compatibility: Omori
3. POSIPOL 2014 travel information: Takahashi-san

Presentations:

http://www-jlc.kek.jp/~omori/ILC-CLIC-e+Studies/20140605/
20140605-Song_SampleResults_1-2.pdf

http://www-jlc.kek.jp/~omori/ILC-CLIC-e+Studies/20140605/
20140605-Omori_Footprint.pdf

http://www-jlc.kek.jp/~omori/ILC-CLIC-e+Studies/20140605/
20140605-Takahashi_PosiPol2014.pdf

Materials:

http://www-jlc.kek.jp/~omori/ILC-CLIC-e+Studies/20140605/
2.1.1.1_ILC_Drawings-Civil_130730.pdf

http://www-jlc.kek.jp/~omori/ILC-CLIC-e+Studies/20140605/
ILCTDR-VOLUME_3-PART_II_Fig14.3.pdf

Summary of discussions:

1. Target Stress Analysis:

   Song-san reported the status of the target stress
   analysis.

   Please look at "20140605-Song_SampleResults_1-2.pdf".

   Song-san stayed at KEK from 25th to 31st of May.
   At the same, Sievers-san stayed at KEK.

They worked together for the stress analysis.

They started the analysis in a very systematic way. First, they considered simple shape samples with simple boundary conditions. They analyzed static examples. All those examples can be solved in an analytic method.

Song-san made both the analytic method and ANYSY analysis and compared the results. In this way we can understand both physics of stress and ANSYS.

Next Song-san will analyze dynamic examples with simple shape samples. Then he will approach the real target analysis gradually.

2. Undulator-Conventional footprint compatibility:

If we start with "Conventional", we need to keep smooth path to "Undulator" (a hypothetical scenario). We need footprint compatibility (no change of the tunnel).

Omori discussed the footprint compatibility.

Please look at "20140605-Omori_Footprint.pdf".

In LCWS14 on November 2013 at Tokyo, we firstly discussed the footprint compatibility. At that time, we assumed that we installed the conventional source as the 1st step, then removed it when the undulator source was ready, then finally we installed the undulator source.

In ADI-CFS meeting on April 2014 at Tokyo, Nick suggested that we made the total design which allowed to install both the undulator source and the conventional source in the tunnel concurrently.

This time, Omori presented the way to follow the Nick's suggestion.

He pointed out that;
(a) the central region tunnel was wide.
(b) the undulator source was located in the central region tunnel (e- side), and it was long.
(c) Some parts of the central region were busy with the undulator source, but some parts were not.

(d) the conventional source could be installed in the non-busy parts.

Omori's conclusion:

1. We can put both the undulator and the conventional sources in the TDR tunnel without significant change of the design. We have footprint compatibility.
2. All are preliminary. Need more careful studies.

Yokoya pointed out that the conventional source removed the difficulty of the commissioning with the undulator source. With the conventional source, we can make full commissioning of the central region, one and half year before the finish of main linac construction (see TDR Vol.3 Part II, page 244, Fig. 14.3). We need not wait the construction of the electron main linac.

3. POSIPOL 2014 travel information:

Takahasi-san presented travel information for POSIPOL 2014.

Please look at "20140605-Takahashi_PosiPol2014.pdf".

He explained the routes from Narita and Haneda airports to Ichinoseki.

In most of the flights, one can reach Ichinoseki in the same day.

The last connected trains to Ichinoseki (via central Tokyo) will leave Narita at 18:49, 18:55, and leave Haneda at 19:39.

The LOC will post more detailed information on the web-site soon.

Reported by T. OMORI

The date of the next meeting is 24th July 2014.
Time slot (c')
(c')22:00(Jpn), 16:00(Ukr), 15:00(CET), 8:00(US-IL), 6:00(US-CA)