**Minutes of CEPC Accelerator meeting**

2015.7.6

**Place**: Room C407, Main building, IHEP

**Convener**: Weiren Chou

**Attendee**: Weiren Chou, Jie Gao, Hongbo Zhu, Junhui Yue, Huiping Geng, Yiwei Wang, Sha Bai, Dou Wang, Tianjian Bian, Carlo Pagani, Ming Xiao, Hongjuan Zheng, Jiyuan Zhai, Zhenchao Liu

**Recorder**：Dou Wang

**Summary of minutes：**

* 1. Prof. Chou introduced the work list discussed at the May CEPC-SPPC meeting. He showed 37 items must be completed for the CDR - and there will be more.

Today’s topic: 1) #7 – partial double ring scheme

2) #23 – SRF HOM coupler for CEPC

* 1. Ming Xiao introduced his progress of partial double ring study. The key points are as follows:

1) The advantage of this study is to avoid the use of pretzel scheme and also it is suitable to serve as a high luminosity Z factory.

2) Discuss LEP electric separators which can be a good reference for CEPC.

3) Primary lattice design based on partial double ring scheme has been done.

Prof. Chou suggested to learn FCC-ee design first, and then to determine the required two pipe separation, crossing angle and minimum bunch interval for CEPC.

4) Prof. J. Gao proposed Xiao Ming to look at the present scheme could handle how many bunches for Z-pole collision.

* 1. Discuss CEPC SRF HOM coupler with Carlo.

1) Carlo

* The heating of bellows and the heating in 2K are big problems.
* The structure of the coupler should be as simple as possible.
* The cost of one main coupler is comparative to one cavity.
* To confirm if there is any trap modes in the cavity.
* Decrease the HOM power of the cavity at the cost of reduce the R/Q of the fundamental mode.

2) Chou

* Is the frequency of the main ring (650MHz) OK?
* The cell number is 5. Is it OK?
* What’s the limit of the design now?
* To know what have done and what have to be done.
* To calculate the HOM power and *Q* limit of Z design in Pre- CDR.
* Write a note about the HOM power calculation results and HOM coupler design.

3) Jiyuan Zhai

* Compared to the huge power of main coupler, the heat load of HOM coupler is acceptable.
* To confirm the radius of the beam pipe.

Recorder：Dou Wang

Checkup：Jie Gao, Weiren Chou

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