

# Minutes of CEPC MDI Meeting

(March 2<sup>nd</sup>, 2020)

<https://indico.ihep.ac.cn/event/11495/>

Attendees: Sha Bai, Ivanka Bozovic, Jie Gao, Quan Ji, Chia-Ming Kuo, Zhijun Liang, Peilian Liu, Xinchou Lou, Haoyu Shi, Cheng-Wei Shih, Haijing Wang, Jianchun Wang, Chenghui Yu, Hongbo Zhu, Yingshun Zhu

Xinchou shared the background behind the restructuring of the MDI group. IAC recommended that the level of the MDI working group be increased, and collaboration be more strengthened. It is important to set up the new baseline and clarify the timetable. It is also crucial to combining engineering expertise and the detector options.

Xinchou will lead the MDI working group, Jianchun will assist. A list of active members was presented. We need to recruit more people, experts or manpower.

Xinchou will draft the baseline, tasks, goals, milestones of the MDI project for circulation and comments.

A MDI workshop will be held in early summer. It will be decided later whether it is necessary to have another one prior to the CEPC workshop at SJTU.

Jie provided a few possible add-ins to the working group. Besides of SC magnet, there is another one on cryogenics to be included. The name will be provided later. He suggested that we should invite Philip Burrows to participate in the MDI work or at least the discussions.

Jie also brought up the evolving machine design towards higher luminosity would require several changes in the interaction region, e.g. changing two cell cavities to single cell cavities for Z-pole operation. Those feasibility studies would be presented at the next CEPC workday meeting.

Ivanka suggested a few other names. A special one is Wolfgang Lohmann, who is FCAL spokesperson and is retired from DESY. We may invite him to be a visiting scholar. His expertise on luminometer instrumentation and luminosity measurement will be a big help to MDI. Hongbo will take care of this matter.

Hongbo agreed with Ivanka that Wolfgang would bring in expertise and might be able to help solving the long standing LumiCal design problem.

Jie raised the issue of the CM energy for the tt physics and would like the physicists to pick a value that favors the physics goal. Jianchun said that at the CEPC day, Liantao got relevant accelerator parameters and planned to provide an assessment.

(Jianchun followed up after the meeting. Liantao replied as the following: from physics point of view the difference between  $E_{cm}=360$  and 365 GeV is not significant. 365 GeV provides more opportunity and thus is preferred, if it does not make much difference to accelerator etc. However, it is important to be able to scan around 345 GeV. A low luminosity around 345 GeV is acceptable.)

A MDI mailing list will be created. We aim to have the next meeting at the beginning of April.