

Introductory remarks

João Guimarães da Costa

July 13, 2018



中國科學院高能物理研究所

*Institute of High Energy Physics
Chinese Academy of Sciences*



CDR Schedule

- CDR approved by Steering Group Committee on June 29:
 - **July 15**: full text available for editing (including physics and performance)
 - **July 30**: final internal editing finished
 - Aug 30: finish internal review
 - **Sept 1: international review <<< changed from earlier**
 - **By Sept 30: release to public <<< changed from earlier**
- FCC-ee CDR to release final version to CERN Council meeting on September 24
 - They will keep things simple, mostly no full simulation



CDR Editors

- **General:**
 - **Charlie Young**
 - **Chris Tully**
 - **Joao, Yuanning, Shan**
- MDI:
 - Zhu Hongbo
- Luminosity:
 - Suen, suen@sinica.edu.tw
 - Ivanka Bozovic, ibozovic@vin.bg.ac.rs
- VTX:
 - Ouyang Qun, ouyq@ihep.ac.cn
 - Lu Yunpeng yplu@ihep.ac.cn
- Silicon Tracker:
 - Wang Meng, mwang@sdu.edu.cn
- Full Silicon Tracker:
 - Weiming Yao, weiming.yao@cern.ch
 - Fu Chengdong, fucd@ihep.ac.cn
- TPC Tracker:
 - Li Yulan, yulanli@mail.tsinghua.edu.cn
 - Qi Huirong, qih@ihep.ac.cn
 - Deng Zhi, dengz@mail.tsinghua.edu.cn
- Drift Chamber:
 - Franco Grancagnolo, franco.grancagnolo@le.infn.it
- DAQ and readout:
 - Zhu Kejun, zhukj@ihep.ac.cn
 - Liu Zhen-an, liuza@ihep.ac.cn
- ECal:
 - Hu Tao, hut@ihep.ac.cn
 - Liu Jianbei, liujianb@ustc.edu.cn
- HCal:
 - Yang Haijun, haijun.yang@sjtu.edu.cn
- DR Cal:
 - Roberto Ferrari, roberto.ferrari@cern.ch
- Muon:
 - Li Liang, liangliphy@sjtu.edu.cn
 - Paolo Giacomelli, paolo.giacomelli@cern.ch
- Physics Analysis and Detector Optimization:
 - Ruan Manqi, ruanmq@ihep.ac.cn
 - Fang Yaquan, fangyq@ihep.ac.cn
 - Li Qiang, qliphy@gmail.com
 - Li Gang, li.gang@mail.ihep.ac.cn
 - Liang Zhijun (IHEP), zhijun.liang@cern.ch
 - Jianming Qian (Univ. Michigan), qianj@umich.edu
- Magnet:
 - Zhu Zian, zhuza@ihep.ac.cn
 - Zhao Wei, zhaow@ihep.ac.cn
 - Liu Xuyang, liuxuyang@ihep.ac.cn
 - Zhao Ling, zhaoling@ihep.ac.cn



CDR Open Issues and Questions:

- Inputs from Rome workshop
 - Consider robustness of detectors in the design: TPC/silicon/wire chamber
 - TPC:
 - Check IBF studies with x-ray source
 - Clarify performance of TPC at 2 Tesla
 - ECAL:
 - Limitations on the photon resolution. Why is it so bad compared to LHC calorimeters?
 - Define impact on the detector performance if moving to scintillator strips + SiPM design
 - Muon detector:
 - Consider reducing number of muon detector layers
 - Establish performance criteria for the muon detector
 - MDI
 - Location of the lumical should be in front of beam pipe bellows
- Please provide questions regarding any issues you see with ANY of the sections. We should not wait for external reviewers to point out to us problems that we can solve ourselves.



Organizational matters

- Email list: cepec-cdr-dp-editors
 - Include all editors listed above
- Currently we have a WeChat channel. Can we incorporate foreigners into this? Should we move to other platform?
 - Slack, Mattermost?
- Meetings:
 - Need to almost daily for next couple of weeks —> quick turnaround on answers
 - Need to account for timezone differences
 - Next week:
 - Tuesday 2 pm — report comments from myself and Charlie
 - Wed 3 pm — usual meeting time
 - Thur 9 pm — to accommodate Chicago time? Charlie?



Chapter 8: Readout and DAQ Chapter

- Editors:
 - Zhu Kejun, zhukj@ihep.ac.cn
 - Liu Zhen-an, liuza@ihep.ac.cn
- Please provide information to them as needed
- Proposed outline:
 - Overview of detectors and readout scheme
 - Provide a few examples of general readout of main sub detectors (e.g. pixel, TPC, calorimeter) (1 page)
 - Table with overview: e.g. number of channels, occupancy, data volume, cell size, ...
 - Power scheme and delivery
 - DAQ and trigger system(?)
- Keep in mind the operation at Z pole
 - Need to identify shortfalls to fix them in the CDR



General Editorial Issues

- Quoting of ILC
 - Should be done in a general statement early on, afterwards only when strictly necessary
- Comparisons with PreCDR or previous versions not necessary. Keep it to the very minimum.
- Numbers need to be consistent across all sections of CDR
- Each detector group should carefully examine the corresponding performance section for any issues
 - Need to make sure we describe the same detector everywhere



Conferences

- **International upcoming meetings of interest:**

- Higgs Hunting, Paris, France, Jul 23-25
 - <http://www.higgshunting.fr/>
- Recontres du Vietnam, Aug 5-11
 - <http://vietnam.in2p3.fr/2018/windows/index.html>
 - Abstracts due June 1st!
- Higgs Couplings 2018, Tokyo, November 26-30
 - <https://www.icepp.s.u-tokyo.ac.jp/hc2018/>

- **National upcoming meetings of interest:**

- 2018年基本粒子和相互作用协同创新中心年会暨牡丹江合作组工作会
 - Jinan, Shandong, Sept 15-16,
 - <https://indico.ihep.ac.cn/event/7856/>
- **International Workshop on the High Energy Circular Electron Positron Collider, Beijing, Nov 12-14**



International Workshop on CEPC

- Jianming Qian to lead organization

THE SECOND INTERNATIONAL WORKSHOP ON HIGH ENERGY CIRCULAR ELECTRON POSITRON COLLIDER

November 12-14, 2018
Institute of High Energy Physics, Beijing, China
<https://indico.ihep.ac.cn/event/7389>

International Advisory Committee

Young-Kee Kim, U. Chicago (Chair)
Barry Barish, Caltech
Hesheng Chen, IHEP
Michael Davelos, LAL
Brian Foster, Oxford
Rohini Godbole, CERN, Indian Institute of Science
David Gross, UC Santa Barbara
George Hou, Taiwan U.
Peter Jenni, CERN
Eugene Leitchov, BINP
Luce Linssen, CERN
Joe Lykken, Fermilab
Luciano Malari, Sapienza University of Rome
Michelangelo Mangano, CERN
Hitoshi Murayama, UC Berkeley/Princeton
Katsunobu Oide, KEK
Robert Palmer, BNL
John Paulsen, SLAC
Ian Shipsey, Oxford
Stefan Stoenen, CERN
Godfrey Taylor, U. Melbourne
Henry Tye, IAS, HKUST
Yiwei Wang, IHEP
Harry Weerts, ANL

Local Organizing Committee

Jianming Qian, Michigan (Chair)
Qing-Hong Cao, PKU
Joao Guimaraes Costa, IHEP
Yaqun Fang, IHEP
Jie Gao, IHEP
Yuanming Gao, THU
Hong-Jian He, SJTU
Kangang He, SJTU
Shan-Jin, NCU
Jianbei Li, USTC
Xinshou Lou, IHEP
Qing Qin, IHEP
Maoxi Ruan, IHEP
Jingyi Tang, IHEP
Liantao Wang, Chicago
Jianhua Wang, IHEP
Meng Wang, SDU
Nai Xu, CCNU
Fajun Yang, SJTU
Hongbo Zhu, IHEP

Conference secretaries:
Zhaoru Zhang, IHEP
Gang Li, IHEP
Email: cepcW518@ihep.ac.cn
Tel: +8610 6185 1082/6094
+8610 6185 1552/618536