

Introductory remarks

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中国科学院高能物理研究所

*Institute of High Energy Physics
Chinese Academy of Sciences*

November Workshop

- Next Week! Monday- Wednesday at IHEP
 - <http://indico.ihep.ac.cn/event/6618/overview>
 - Monday: plenary + parallel sessions
 - Tuesday: parallel sessions —> most of our work will be presented here
 - Wednesday: plenary session: discussion and summaries
 - Detector plenaries:
 - Nov 6: CEPC detector CDR status - Joao
 - This will be based on your reports today!
 - Nov 8: Detector and Physics summary and plan - Speaker TBD
 - Feel free to send suggestions
 - Poster session starts on Monday during coffee break. Posters to be mounted during lunch time. They will stay until end of workshop.
- Number of attendees registered: ~254
 - ~1/3 from international institutions
- Program is now finalized
 - Check agenda

Posters

| | Number |
|------------------------------------|---|
| Vertex | 1-2 |
| Silicon Tracker | 1 |
| TPC | 4 |
| Electromagnetic Calorimeter | 2 |
| Hadronic Calorimeter | 2 |
| Dual Readout Calorimeter | 2, Lorenzo Pezzotti, Massimiliano Antonello |
| Magnet System | 4 |
| Muon System | 1 |
| MDI | 1 (detector background) |
| LumiCal | 1/0 |
| Physics and Performance | 2 |
| Other | 2 |
| Total | 21 |

International Advisory Committee Meeting

- The fourth CEPC IAC meeting:
November 8-9
 - <http://indico.ihep.ac.cn/event/7390/overview>
 - Some overlap with the workshop
on November 8
 - Activities to start at 5 pm
 - CEPC CDR Status report to be
presented on November 8
 - Main goal of this meeting is the
discussion on how to broaden the
internationalization of the CEPC
project

International Advisory Committee

Young-Kee Kim, U. Chicago (Chair)
Barry Barish, Caltech
Hesheng Chen, IHEP
Michael Davier, LAL
Brian Foster, Oxford
Rohini Godbole, CHEP, Indian Institute
of Science
David Gross, UC Santa Barbara
George Hou, Taiwan U.
Peter Jenni, CERN
Eugene Levichev, BINP
Lucie Linssen, CERN
Joe Lykken, Fermilab
Luciano Maiani, Sapienza University of
Rome
Michelangelo Mangano, CERN
Hitoshi Murayama, UC Berkeley/IPMU
Katsunobu Oide, KEK
Robert Palmer, BNL
John Seeman, SLAC
Ian Shipsey, Oxford
Steinar Stapse, CERN
Geoffrey Taylor, U. Melbourne
Henry Tye, IAS, HKUST
Yifang Wang, IHEP
Harry Weerts, ANL

Minireview of CDR

- Following Next Week's workshop
 - Friday 10 and Saturday 11
 - <http://indico.ihep.ac.cn/event/7384/>
 - **Informal review!**
 - Very short presentations about content of CDR
 - Followed by lengthier discussions with reviewers attendees
 - A few international attendees have volunteered to stay to review draft
 - Need the presence of at least one convener per group
 - Also very important to have CDR editors/contributors present
 - Contact: Zhaoru Zhang:
 - Agenda:
 - <http://indico.ihep.ac.cn/event/7384/>

Minireview international attendees

| | | | |
|----------------------------|---------------------|---------|---------------------|
| Abe Seiden | UCSC | USA | In Writing |
| Charlie Young | SLAC | USA | Y |
| Sebastian Grinstein | Barcelona | Spain | Y |
| Franco Bedeschi | INFN | Italy | By video |
| Alberto Belloni | UMD | USA | Assistant Professor |
| Franco Grancagnolo | INFN | Italy | ? |
| Imad Laktineh | | France | ? |
| Roberto Ferrari | INFN | Italy | ? |
| Sasha | DESY | Germany | Y? |
| James Beachman | OSU | USA | Y |
| Jianming | Michigan University | USA | Y |
| LianTao | Chicago | USA | Y |

CDR News

IHEP-CEPC-DR-2018-XX

IHEP-EP-2018-XX

IHEP-TH-2018-XX

CEPC-SPPC

Conceptual Design Report

Volume I - Physics & Detector

The CEPC-SPPC Study Group

March 2018

- Text slowly growing
 - Document is about 192 pages now
 - Still, lots of parts missing and lots of editing work needed
- Share your text using GIT repository:
 - http://cepcgit.ihep.ac.cn/cepcdoc/CDR/tree/master/CDR_draft
 - You are free to continue editing the text once you submit it to the repository
 - So, I would encourage you to start adding it now

Last Week's Version

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Workshop Detector Agenda

November 6th

| Parallel I: 16:30-18:30 | | | Detector Concepts and System Aspects | Conveners: Massimo Caccia, Joao Guimaraes |
|-------------------------|-------|------|---|---|
| Talk 1 | 16:30 | 0:20 | Full silicon detector CEPC detector concept | Weiming Yao |
| Talk 2 | 16:50 | 0:20 | CMS experience with HGCAL | Alberto Belloni |
| Talk 3 | 17:10 | 0:20 | Status of the CEPC magnet R&D | Zian Zhu |
| Talk 4 | 17:30 | 0:20 | A second detector proposal for CEPC | Franco Bedeschi |
| Talk 5 | 17:50 | 0:20 | Advanced DAQ systems for current and future colliders | Zhenan Liu |
| Talk 6 | 18:10 | 0:20 | The CLIC-inspired FCCee detector | Oleksandr Viazlo |

November 7th

Day II: 10/7 - Parallel Sessions

| Parallel II: 8:00-10:00 | | | Silicon Vertex and Tracker | Conveners: Wang Meng, Daniela Bortolotto |
|-------------------------|------|------|--|--|
| Talk 1 | 8:00 | 0:20 | Status report from Vertex Detector group (15+5 min) | OUYANG Qun |
| Talk 2 | 8:20 | 0:20 | Alpide and other developments | Walter Snoeys |
| Talk 3 | 8:40 | 0:20 | Depleted CMOS detectors for HEP experiments | Sebastian Grinstein |
| Talk 4 | 9:00 | 0:20 | Tracking in four dimensions | Amedeo Staiano |
| Talk 5 | 9:20 | 0:20 | Overview of SOI development | LU Yunpeng |
| Talk 6 | 9:40 | 0:20 | CMOS Pixel Sensors for ILC Related Vertexing & Tracking Device | Christine HU |

| Parallel III: 8:00-10:00 | | | Gas Detectors (Tracker, TPC and muons) | Conveners: Charlie Young, Soeren Prell, Yuanning Gao |
|--------------------------|------|------|--|--|
| Talk 1 | 8:00 | 0:30 | CEPC TPC R&D and design | Huirong Qi |
| Talk 3 | 9:00 | 0:30 | An ultra-light drift chamber with particle identification capabilities | Franco Grancagnolo |
| Talk 4 | 9:20 | 0:30 | Muon detector options for CEPC | Li Liang |
| Talk 5 | 9:40 | 0:30 | MPGD overview | Atsuhiko Ochi |

Workshop Detector Agenda

| Parallel IV: 10:30-12:30 | | | Calorimeters | Conveners: Imad, Roberto, Jianbei |
|---------------------------------|--------------|-------------|---|---|
| Talk 1 | 10:30 | 0:20 | CEPC ECAL R&D Status | Yunlong Zhang |
| Talk 2 | 10:50 | 0:20 | CEPC HCAL R&D Status | Boxiang Yu |
| Talk 3 | 11:10 | 0:20 | CALICE SiW status | Jean-Claude Brient |
| Talk 4 | 11:30 | 0:20 | CALICE SDHCAL status | Haijun Yang |
| Talk 5 | 11:50 | 0:20 | Dual Readout Calorimeter at the CEPC | Roberto Ferrari |
| Talk 6 | 12:10 | 0:20 | Dual readout calorimeter external vision | Tianchi |
| Parallel V: 14:00-16:00 | | | Physics and Simulation | Conveners: Sasha, Patrizia, Yaquan and Manqi |
| Talk 1 | 14:00 | 0:20 | Fast Simulation for CEPC | LI Gang |
| Talk 2 | 14:20 | 0:20 | Jet energy scale and resolution | Peizhu |
| Talk 3 | 14:40 | 0:20 | Beam energy monitoring via Compton Scattering | Guangy |
| Talk 4 | 15:00 | 0:20 | Computing at CEPC | Tian Yan |
| Talk 5 | 15:20 | 0:20 | Deep Learning at CEPC | Fan Yang |
| Talk 6 | 15:40 | 0:20 | New method form measure Higgs boson mass at e+e- | Junping Tian |
| Parallel VI: 16:30-18:15 | | | Physics and Simulation (Joint with Theory) | Conveners: Sasha, Patrizia, Yaquan and Manqi |
| Talk 1 | 16:30 | 0:20 | HI-LHC & challenge for CEPC - Higgs | Nicola De Filippis |
| Talk 2 | 16:50 | 0:20 | HL-LHC & challenge for CEPC - EWK | Paolo Azzurri |
| Talk 3 | 17:10 | 0:20 | Study of BR(H→gamma gamma) | Zhenyu Whu |
| Talk 4 | 17:30 | 0:20 | Combination of CEPC Higgs precision measurement | Kaili Zhang |
| Talk 5 | 17:50 | 0:25 | Long lived particles | John Beacham |