# Introductory remarks

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Institute of High Energy Physics Chinese Academy of Sciences



## November Workshop

- <u>http://indico.ihep.ac.cn/event/6618/overview</u>
  - 6-8 November 2017 at IHEP
    - Monday: plenary + parallel sessions
    - Tuesday: parallel sessions
    - Wednesday: plenary sessions
  - Detector plenaries:

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- Nov 6: CEPC detector status Joao
- Not 8: Detector and Physics summary & plan TBD
- Number of attendees registered: ~220
  - ~44% from international institutions
  - Might have to close registrations soon
- Program is almost finalized

## Nov 6th, 08:30 - 10:30 Plenary Session I: CEPC-SppC Overview

- 1) Opening Address 10' Yifang Wang
- 2) CEPC-SppC Overview & Objectives 25' Xinchou Lou
- 3) CEPC Physics status 20' Liantao Wang
- CEPC accelerator CDR status 25' Jie Gao
- CEPC Detector status 20' Joao
- 6) SppC status 20' Jingyu Tang



# 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 Bortolleto |  |  |
| 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,<br>Yuanning Gao |
|--------------------------|------|------|--|---|
| Talk 1                   | 8:00 | 0:30 | CEPC TPC R&D and design  | Huirong Qi  |
| Talk 2                   | 8:30 | 0:30 | TPC experience from LCTPC  | Invited by C: Jochen Kaminski                           |
| Talk 3                   | 9:00 | 0:20 | An ultra-light drift chamber with particle identification capabilities | Franco Grancagnolo                                      |
| Talk 4                   | 9:20 | 0:20 | Muon detector options for CEPC   | Li Liang  |
| Talk 5                   | 9:40 | 0:20 | MPGD overview  | Atsuhiko Ochi   |



# Managenda 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<br>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<br>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                                    |



## Posters

|                             | Number                                   |
|-----------------------------|--|
| Vertex                      |  |
| Silicon Tracker             |  |
| TPC                         |  |
| Electromagnetic Calorimeter | 2  |
| Hadronic Calorimeter        | 2  |
| Dual Readout Calorimeter    |  |
| Magnet System               |  |
| Muon System                 |  |
| MDI                         |  |
| LumiCal                     |  |
| Physics and Performance     |  |
|                             | Lorenzo Pezzotti, Massimiliano Antonello |

Will check with people that submitted abstracts if they want to present a poster instead



# 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:
  - <u>http://cepcgit.ihep.ac.cn/cepcdoc/CDR/</u> <u>tree/master/CDR\_draft</u>
  - 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



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# Outline (last week)

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## Outline (last week)

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# Minireview of CDR

- Following November workshop
  - Friday- Sunday, Nov. 10-12
  - Most likely, Friday 10 and Saturday 11
  - Informal review!

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- A few international attendees have volunteer to stay to review draft
- Need the presence of at least one convener per group
- Agenda:
  - http://indico.ihep.ac.cn/event/7384/