
Study of the laser beam for TPC prototype

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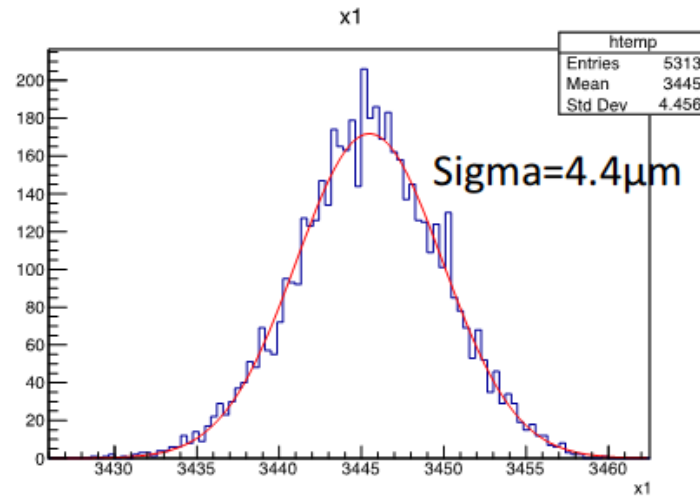
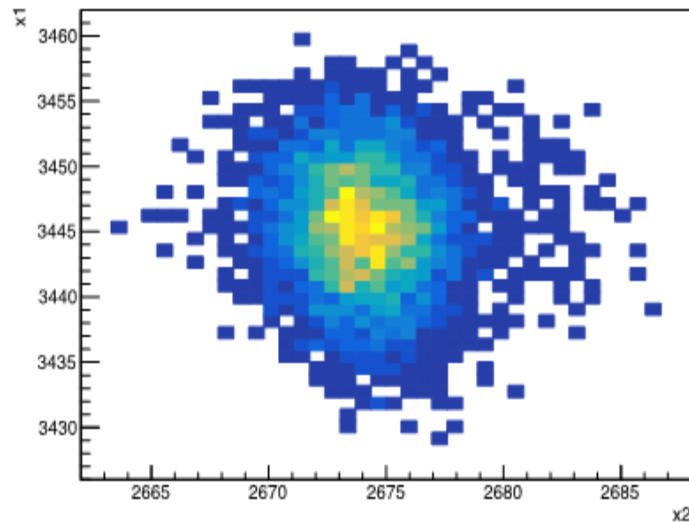
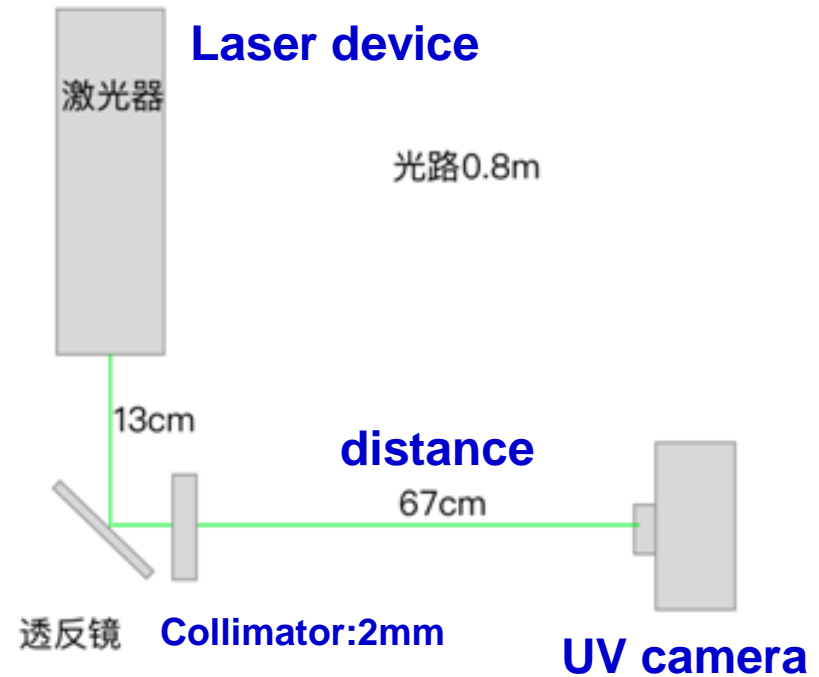
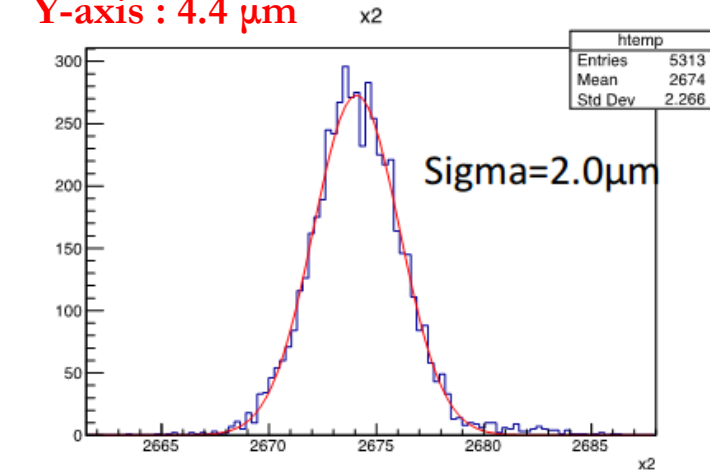
Outline

- Stability of the laser beam position
- Time selection of the calibration
- General discussion

Stability of the laser beam position

GOOD!

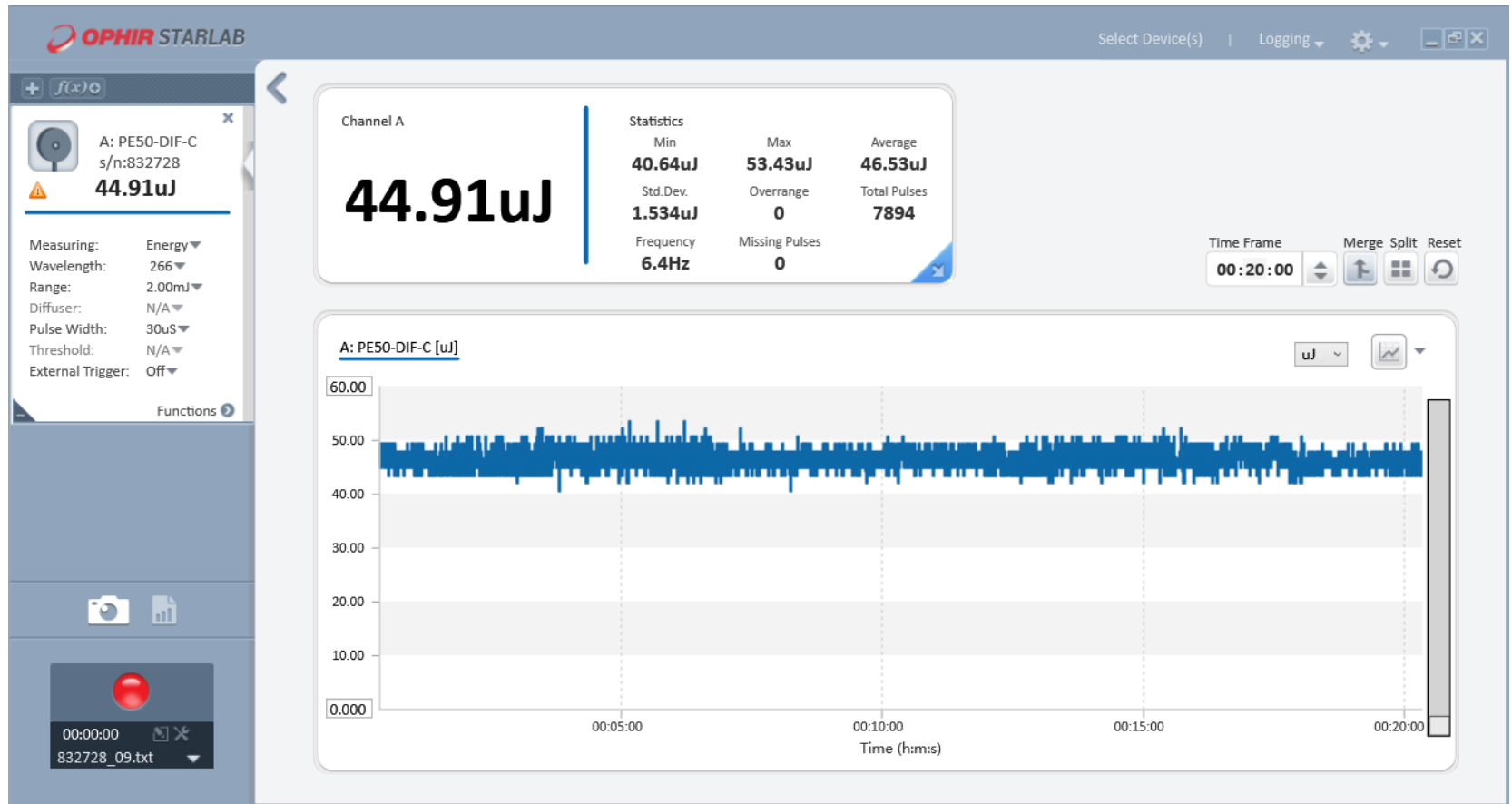
- Duration of measurement time: 10mins
- Stability of the laser beam energy
 - X-axis : 2.0 μm
 - Y-axis : 4.4 μm



Stability of the laser beam energy @ μJ

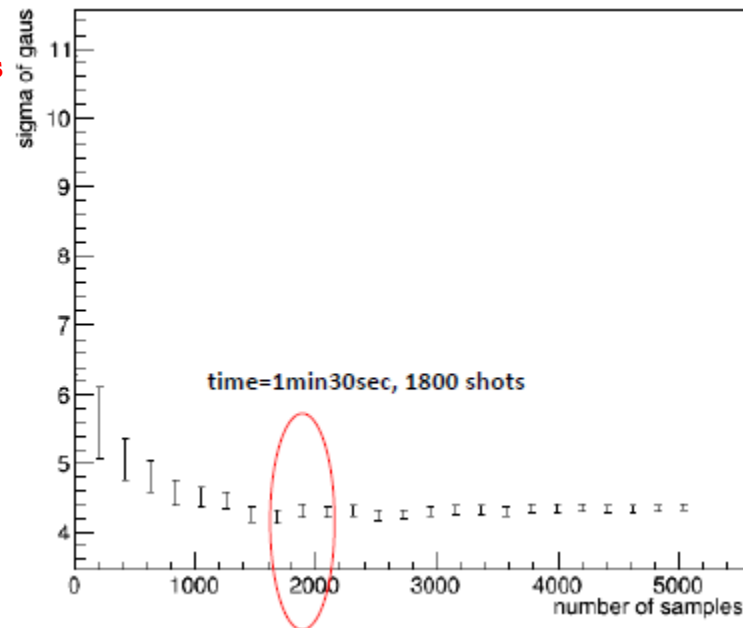
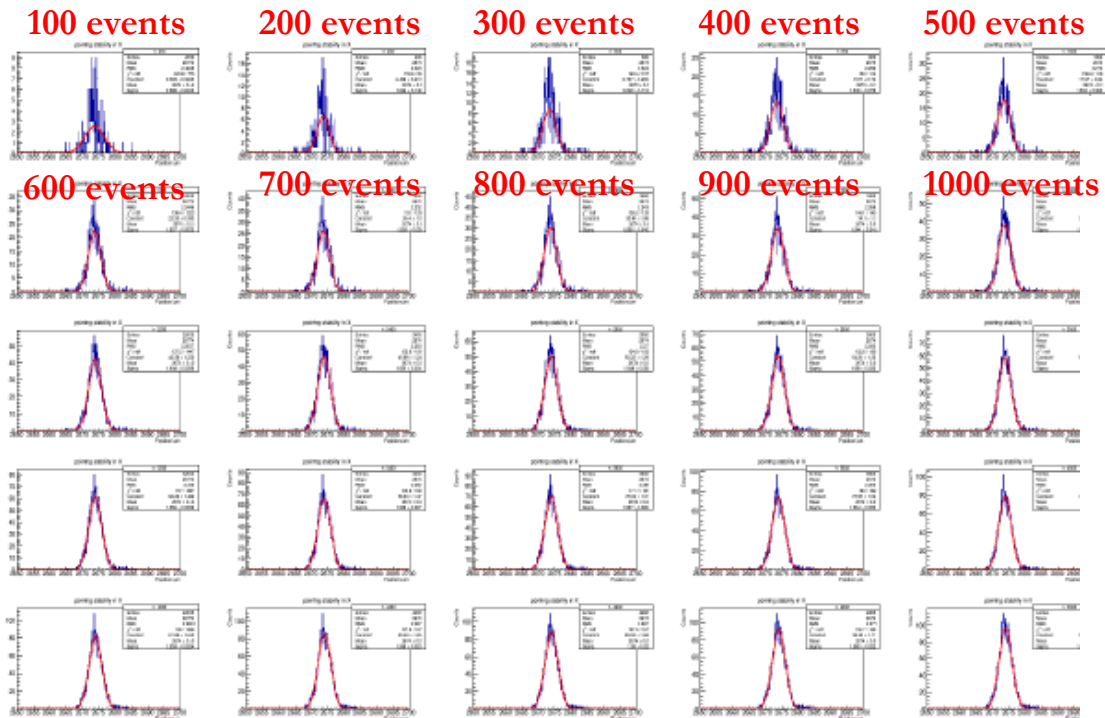
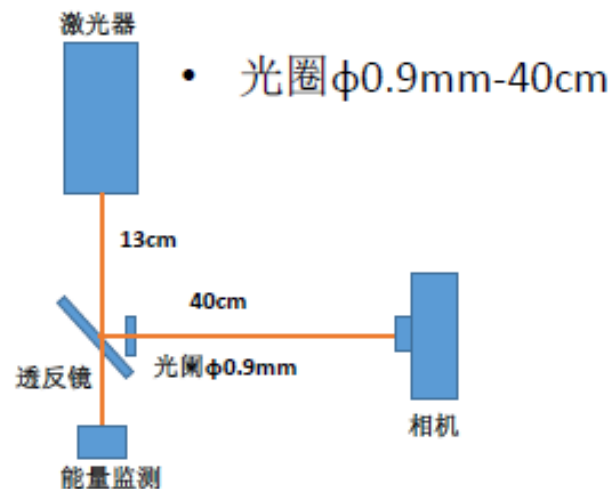
GOOD!

- ❑ Duration of measurement time: **20mins**
- ❑ Average of the energy: **46.53 μJ / Φ5mm**
- ❑ Stability of the laser beam energy: **3.3%**



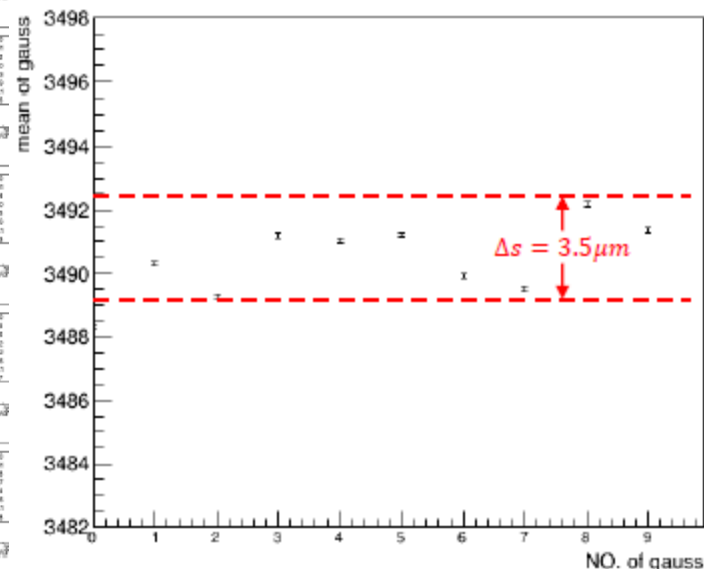
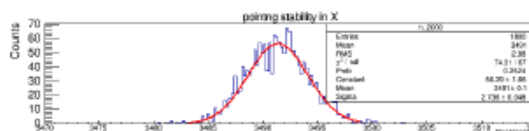
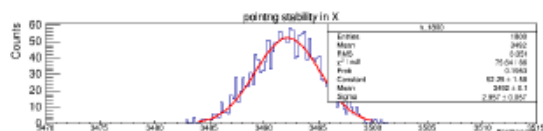
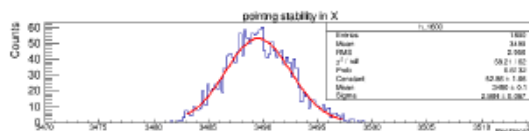
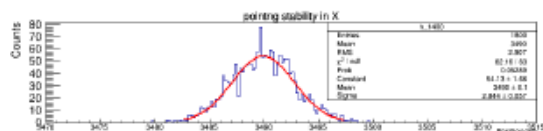
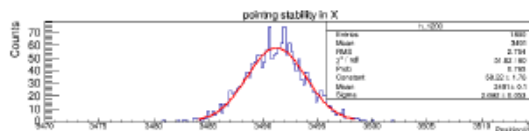
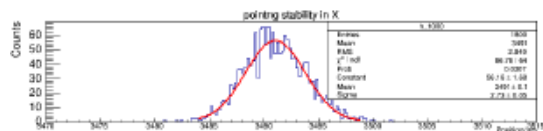
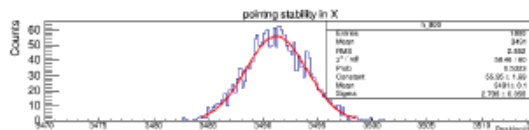
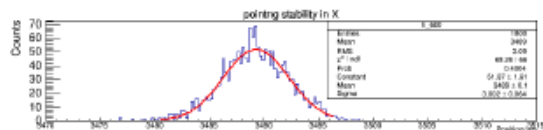
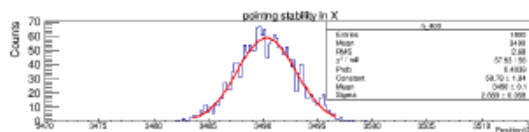
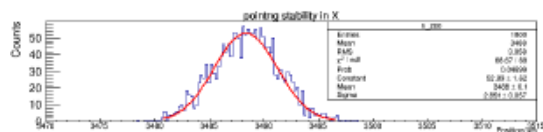
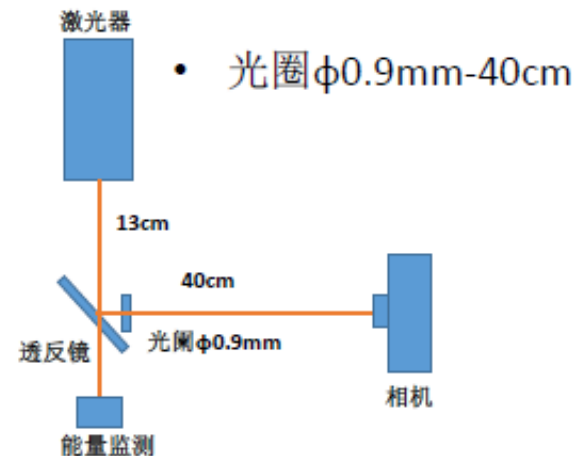
Time selection of the laser calibration

- Duration of measurement time: 90 seconds
- Number of the events: 1800
- Frequency of the laser beam: 20Hz



Time selection of the laser calibration

- Duration of measurement time: **90seconds**
- Frequency of the laser beam: **20Hz**
- Stability of the laser beam profile's center: **<3.5um**



Calibration each 1min30sec(Calibration each 1800 shots):

Feasibility of the laser calibration time

For our prototype

- ❑ Frequency of the laser beam: **20Hz**
- ❑ Time of every calibration: **<90 seconds**
- ❑ Stability of the laser beam profile's center: **<3.5um**

General discussion:

1. How about your visas till now?
2. Could give a talk in CEPC international meeting in November? <https://indico.ihep.ac.cn/event/7389/>

Remote by vidyo?

Speaker: Boris?

3. Agenda draft?

The 2018 International Workshop on the High Energy Circular Electron Positron Collider

12-14 November 2018
Institute of High Energy Physics
Asia/Shanghai timezone

 Search

Overview

- Committees
- Scientific Programme
- Call for Abstracts
 - View my Abstracts
 - Submit Abstract
- Timetable

The 2018 international workshop on the high energy Circular Electron-Positron Collider (CEPC) will take place between November 12-14, 2018 at IHEP in Beijing. The workshop intends to gather scientists around the world to study the physics potentials of the CEPC, review both accelerator and detector Conceptual Design Reports (CDR), pursue international collaborations for accelerator and detector optimization as well as for R&D of critical technologies, and develop initial plans towards Technical Design Reports (TDR). The high energy Super proton-proton Collider (SppC), a possible upgrade of the CEPC, will also be discussed. Furthermore, industrial partnership for technology R&Ds and industrialization preparation of CEPC-SppC will be explored.

Agenda

Parallel session: gas detector

- | | |
|---|--------------------|
| 1) Overview of the gas detector in the collider | TBD |
| 2) TPC module and prototype | Huirong Qi |
| 3) Wire chamber | Franco Grancagnolo |
| 4) Lower power consumption ASIC | Zhi Deng |
| 5) MicroRWell detectors | TBD |
| 6) MRPC | Wang YI |
| 7) TPC R&D in Saclay | ??? |

Agenda(Draft)

Oct. 24	6:00AM Arrived in Beijing airport 10:00AM Arrived at Hotel 15:00PM Visit IHEP to discuss (1st meeting) 18:00PM Welcome dinner
Oct. 25	9:00AM-11:00AM Visit our lab to discuss the laser prototype 14:00PM-16:00PM 2nd meeting to dicussion the next plans or Give a open talk of the Micromegas in CEA-Saclay(?)
Oct. 26	9:30AM-16:00PM Visit China Institute of Atomic Energy (CIAE) The Micromegas detector asembled lab (Prof. Li Xiaomei)
Oct. 27	Visit in Beijing (Weekend and free time)
Oct. 28	Back to Paris