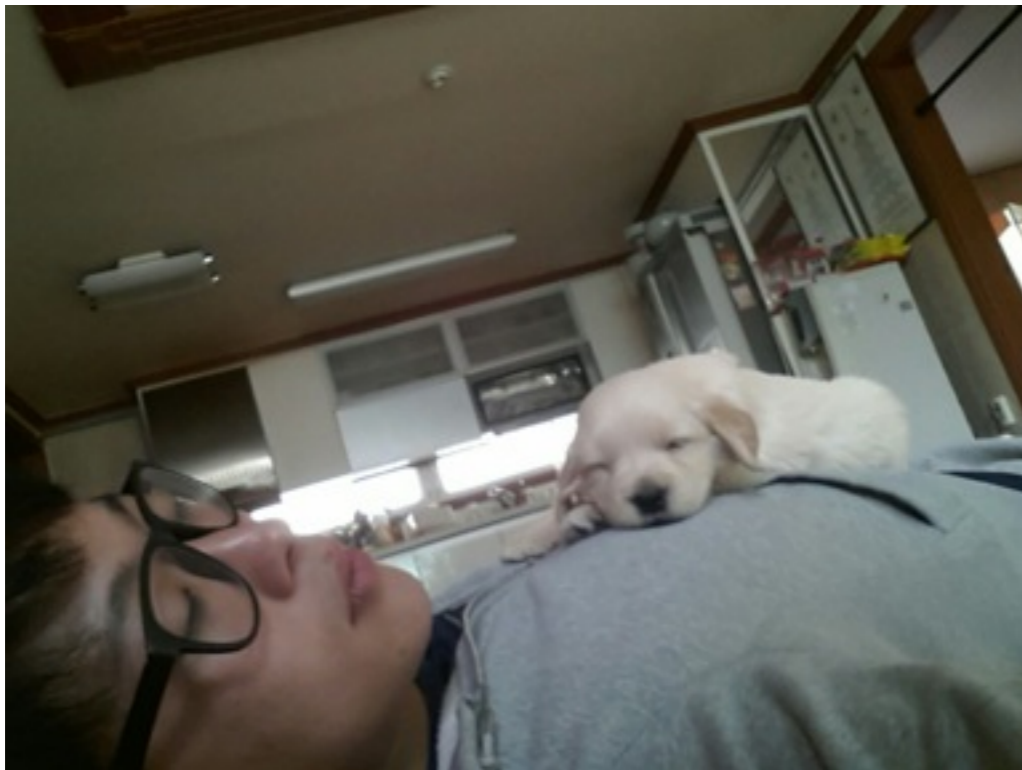


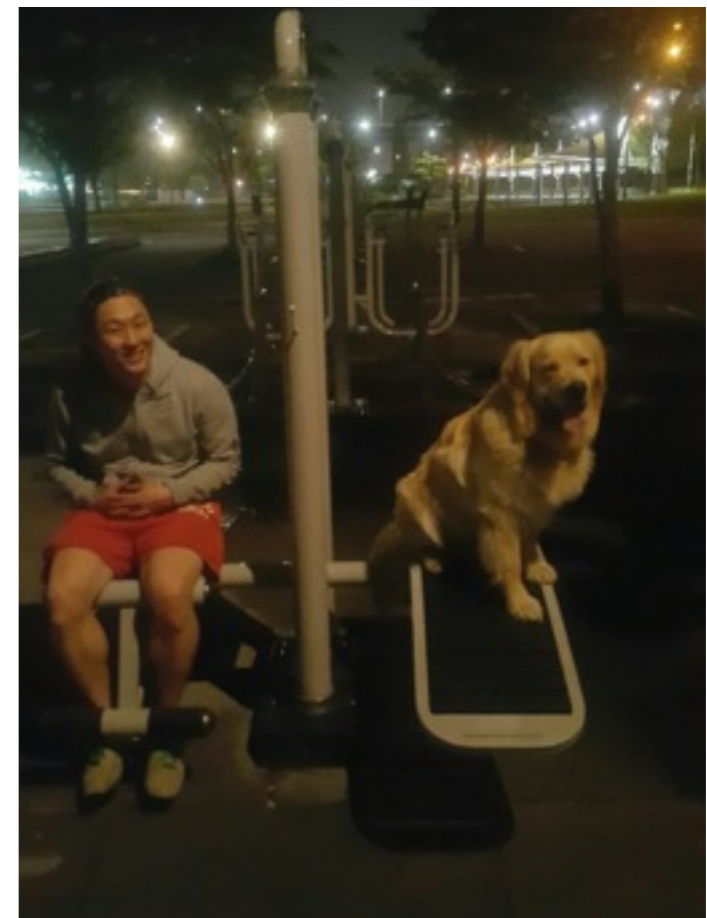
Student self introduction

Korea Univ.
Jaehee, YOO

- I was born in Seoul, Korea.
- Members of my family are four persons and one dog.



2014



2015

- Hobby



- Swimming



- Basketball



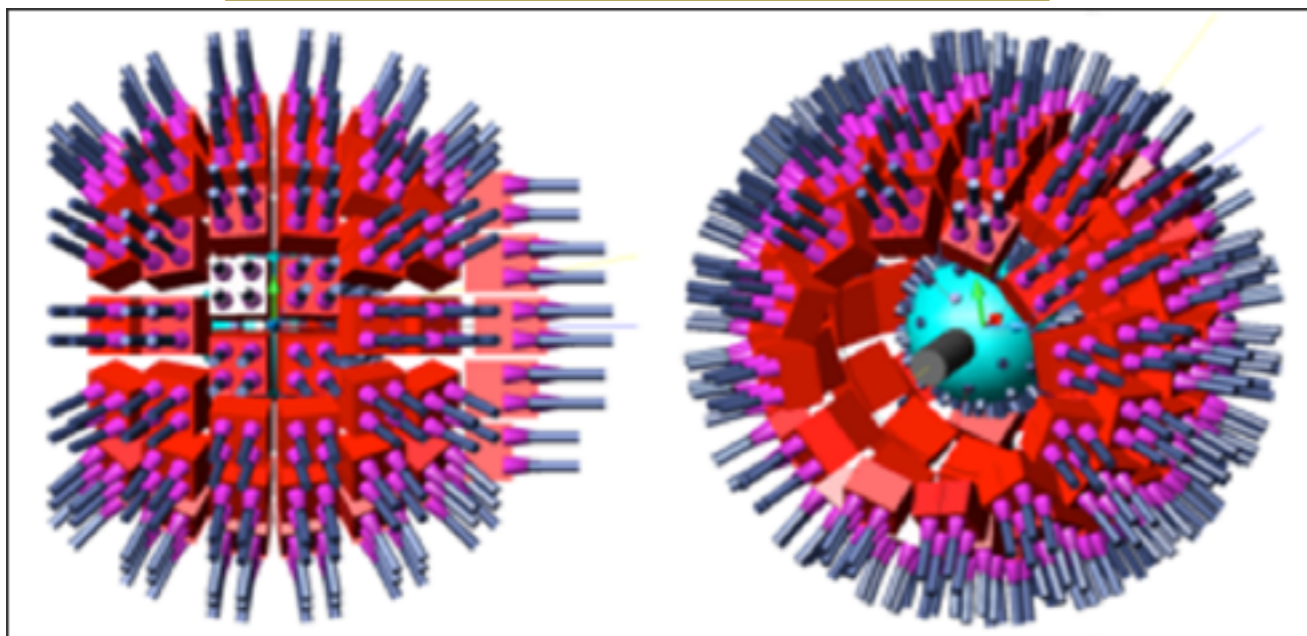
- Cycling



- Singing

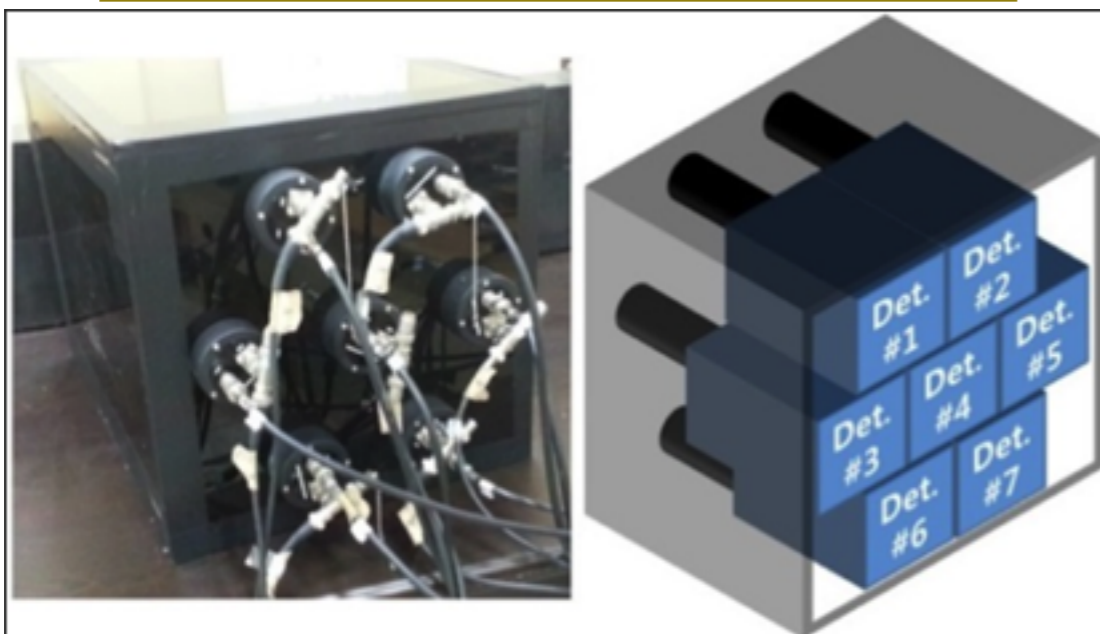
- **2006 - 2012**
 - B.A in Physics, Korea University
- **2013 - Present**
 - Graduate student in Nuclear Physics Lab.(prof. Hong), Korea University (2013)
 - Participated in the development of the prototype low-energy neutron detector for LAMPS at RAON: assembly, test and analysis of the real-size prototype (2013~2014)
 - Join PHENIX experiment : took Shift (Run14, Run15)
- **2015 - Future**
 - Maintenance of the Local Polarimeter in PHENIX(from August ,2015)

Preliminary Low-LAMPS design

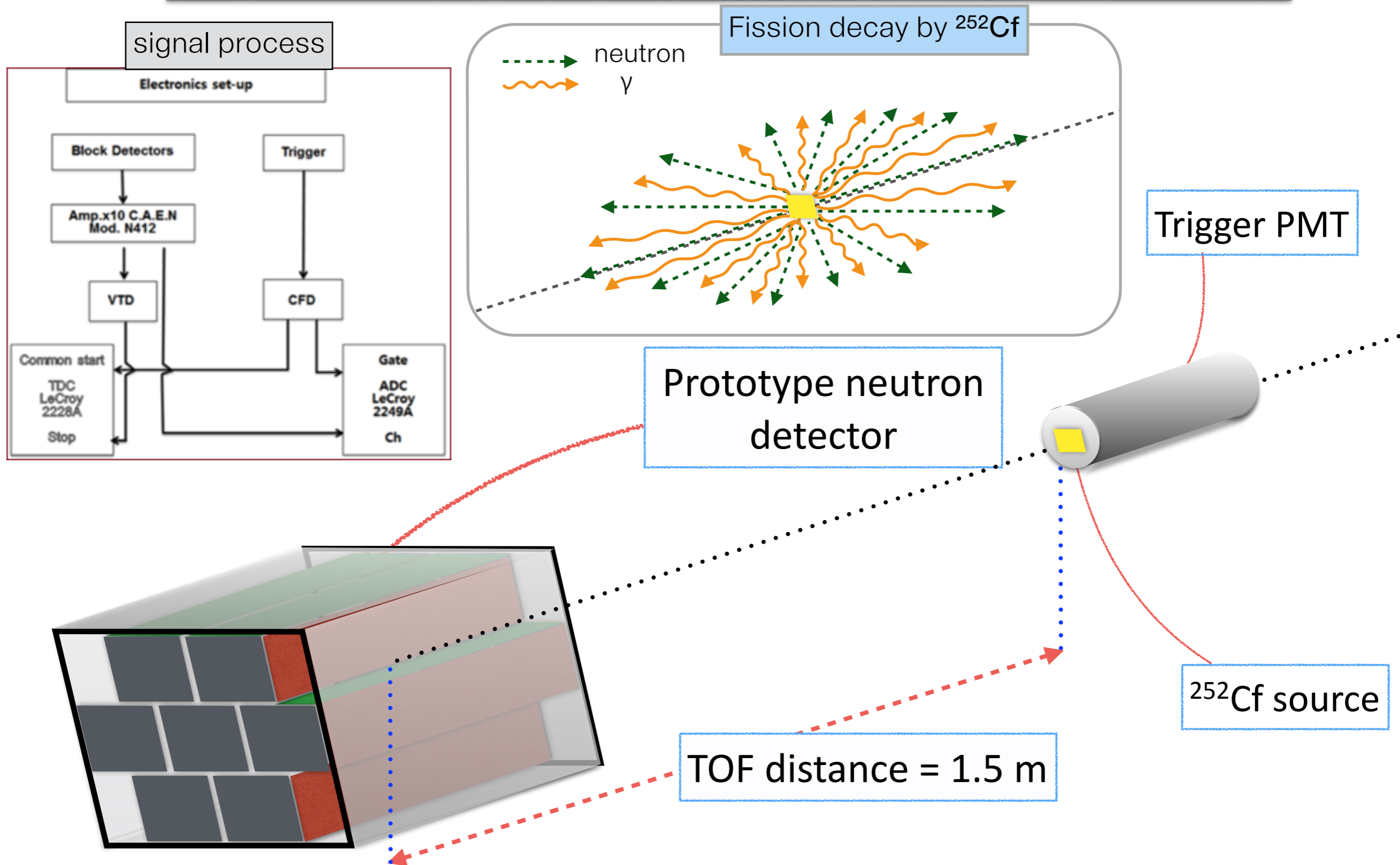


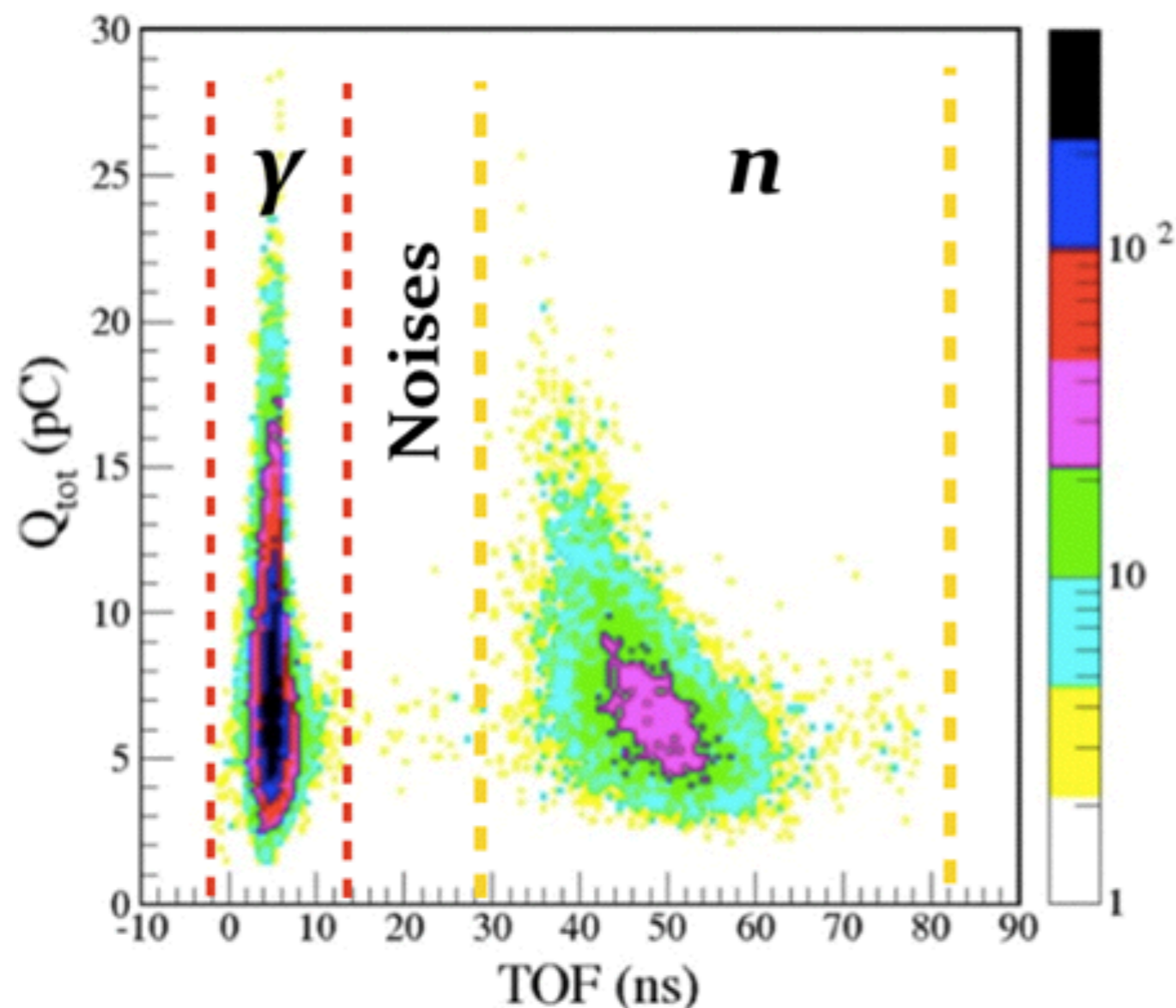
- Basic structure of unit detector module : 3 x 3 array
- Size of unit detectors : 10 x 10 x 20 cm³

Prototype neutron detector design



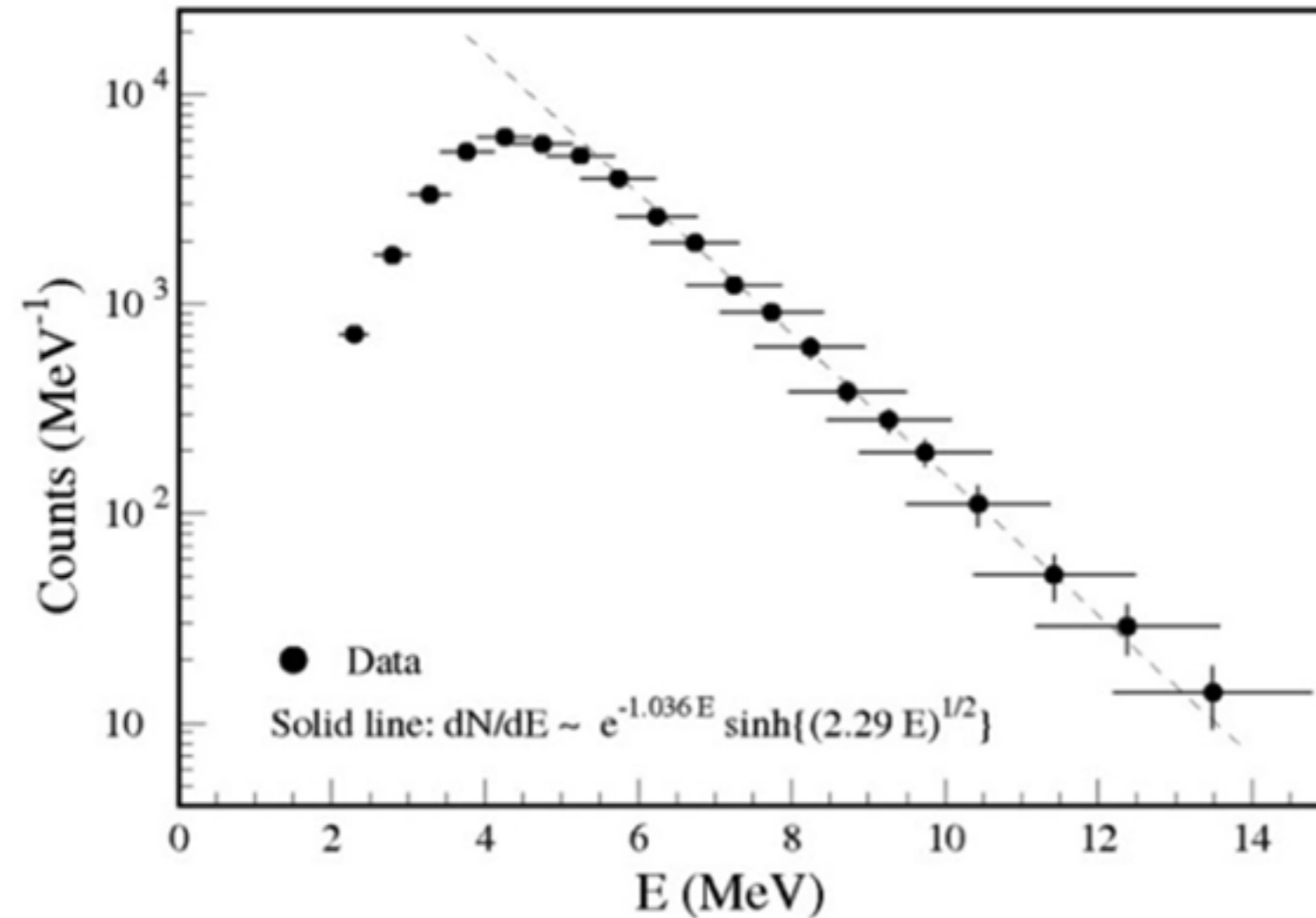
- Prototype detector module : Composed of 7 block detectors
- Size of unit detectors : 10 x 10 x 20 cm³





- Gamma peak centered at **5.05 ns**
- Neutron time zone: **24 ~ 80 ns**
- Mean noise rate per detector = **51.4 Hz**
- **Noise accidental hits** in the neutron time zone in the broad band with a width of Q_{tot} ranging from **1 to about 12 pC**
- **The ratio of the accidentals** in the neutron time zone = **0.089 ± 0.005** .

Q_{tot} = total detector response of the radiation.



Neutron-energy spectrum of ²⁵²Cf measured by the present prototype neutron-detector module.

(The dashed line stands for the systematic trend of the neutron yield.)

- Digitization threshold : **300 keV**
- 7 module block detector can detect over than 2 MeV neutron and detect **exactly over 4.5 MeV neutron.**
- Neutron energy confirmed with **$\epsilon > 50 \%$ over 4 MeV.**

Thank you.