

Barrel PID ; discussion

- Configuration
- To do
- Cost
- Trigger

Detector configuration

◆ Quartz radiator

- Size; 40~50cm width x 1~2cm thickness
- Can we standardize the quartz size?
 - ◆ For mass production

◆ Photo detector

- MCP-PMT for TOP counter
 - ◆ 5mm x 20mm anodes
- ? for Focusing DIRC, iTOP

What to do

- ◆ Confirm performance with
 - Simulation studies
 - ◆ Separation power
 - ◆ Multi-track events, beam BG
 - ◆ → Need reconstruction software?
 - Proto-type
 - ◆ Need to check the time resolution
- ◆ Photo-detector performance
 - Lifetime for MCP-PMT
 - Production reliability

By next summer?

Cost

◆ Quartz

- Okamoto optics and Zygo
 - ◆ 1800x18+2700万円 ~ 3.6M\$
 - ◆ \$88k x 32 + \$84k x 18 + x ~ 5.5M\$

◆ Photo detector

- MCP-PMT; ~2.2M\$

◆ Electronics

◆ Structure

Trigger

- ◆ Requested by trigger group
- ◆ Provide trigger timing with a few ns resolution
- ◆ Hit pattern