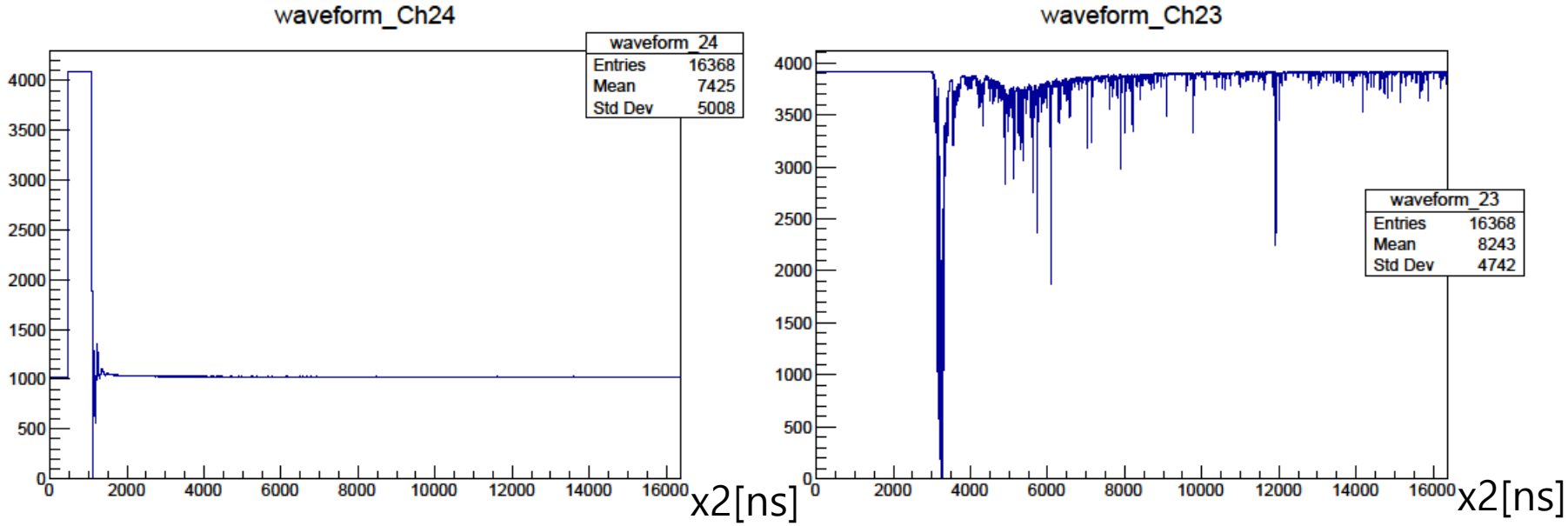
Weekly report

SNU

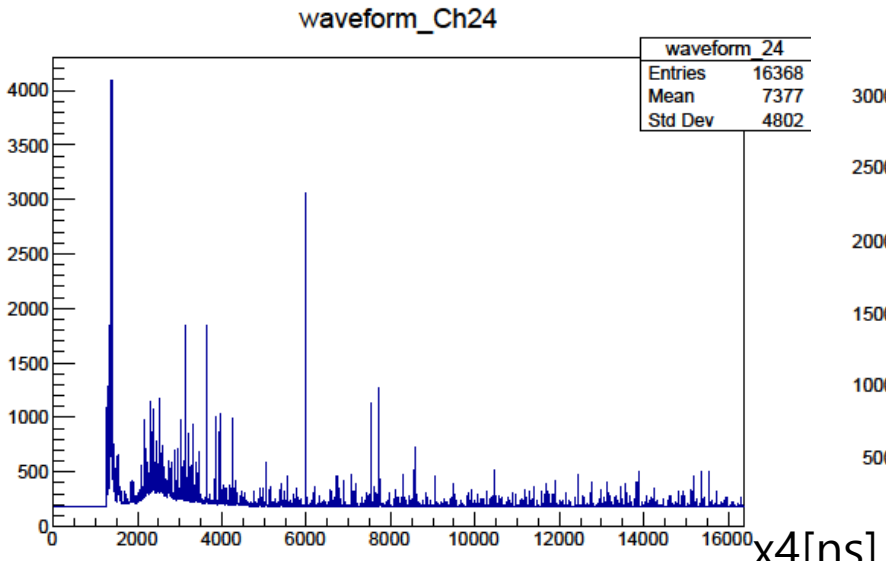
BongHo Kim

Burst check (AD injection)

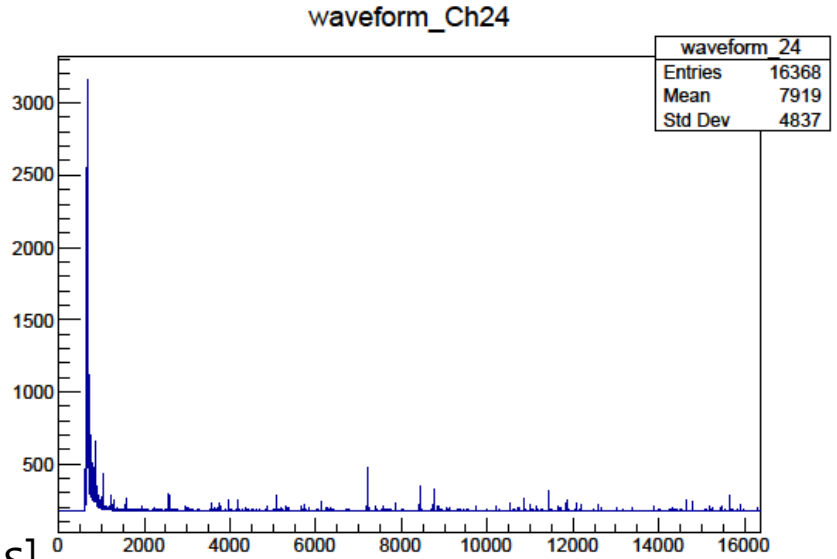


- Burst is shown after ~5us from AD injection trigger.
- Need to check after extend record length(sample size)

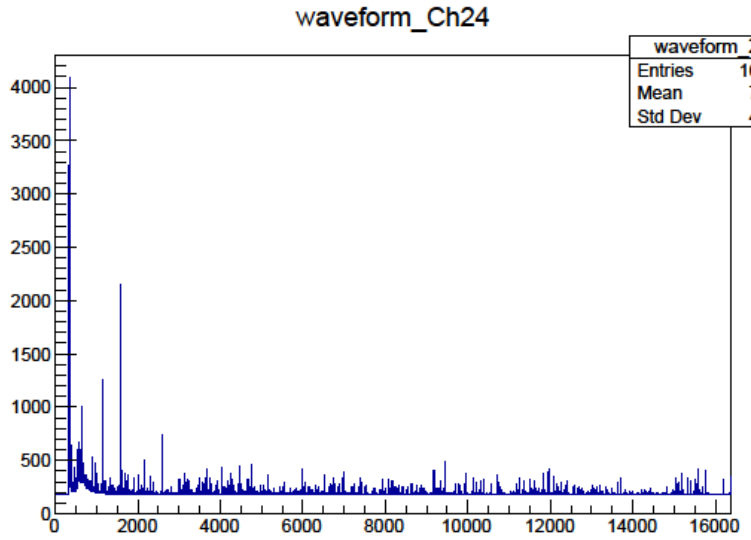
Burst check (AD injection)



x4[ns]



x8[ns]

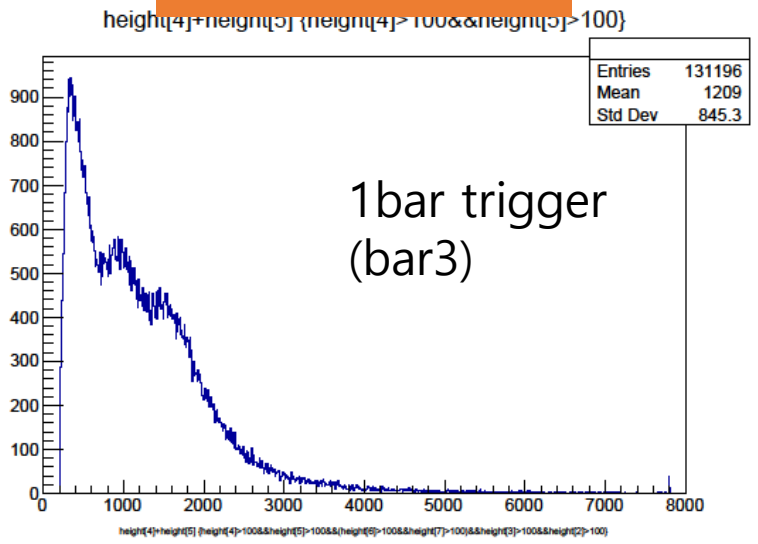


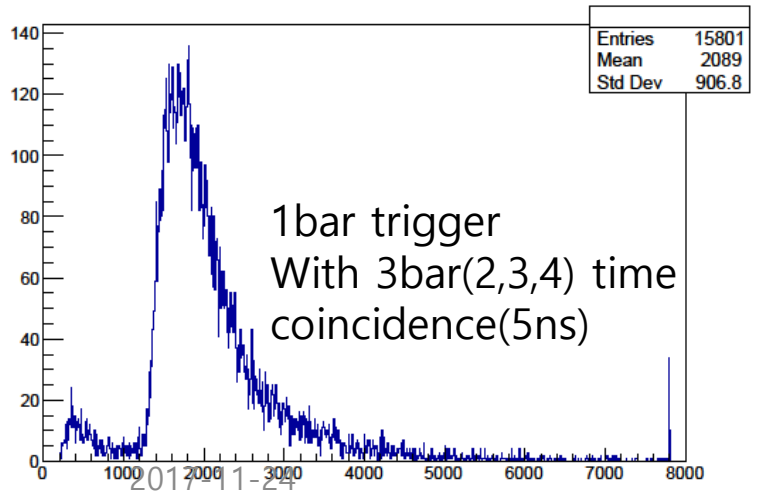
x16[ns]

- Even if time window is increased to 256us, AD injection BG is not disappear..
- Need to test with delay generator?

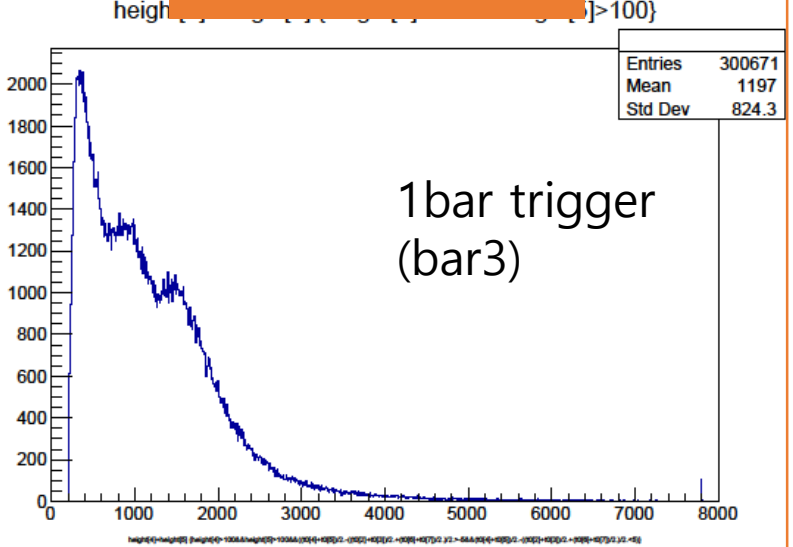
Linac background check

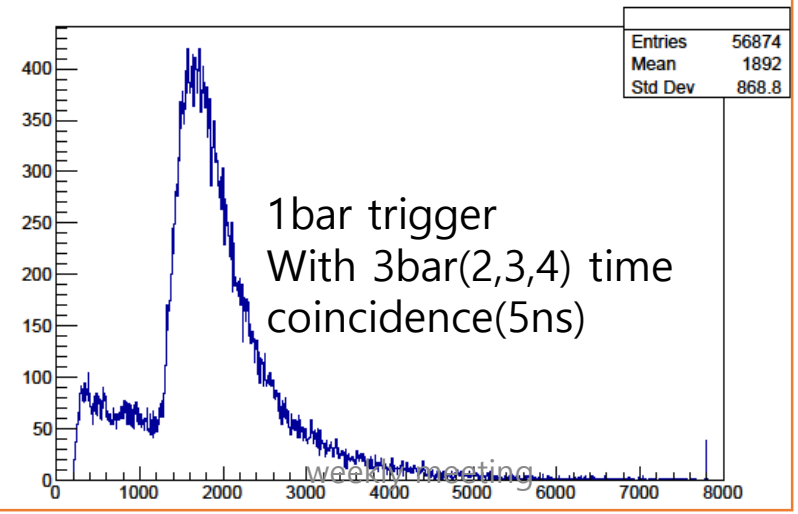
Linac ON





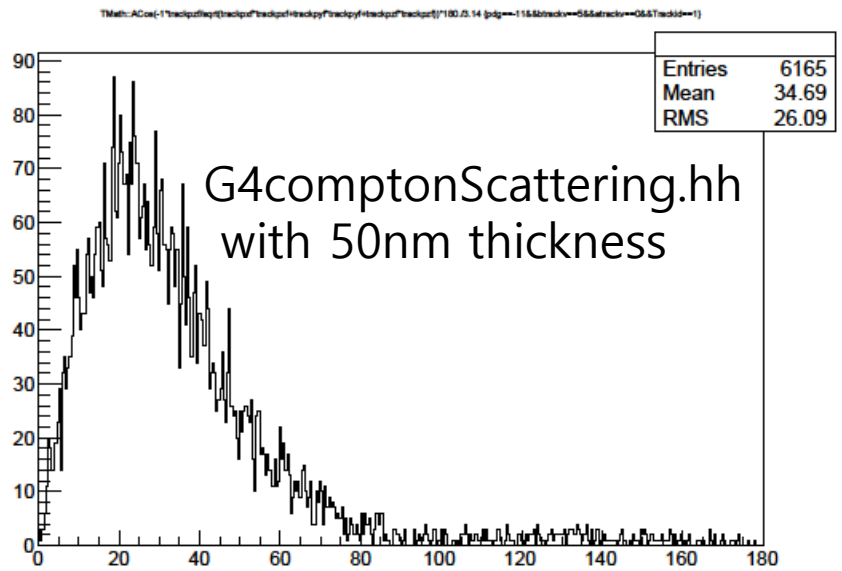
Linac OFF

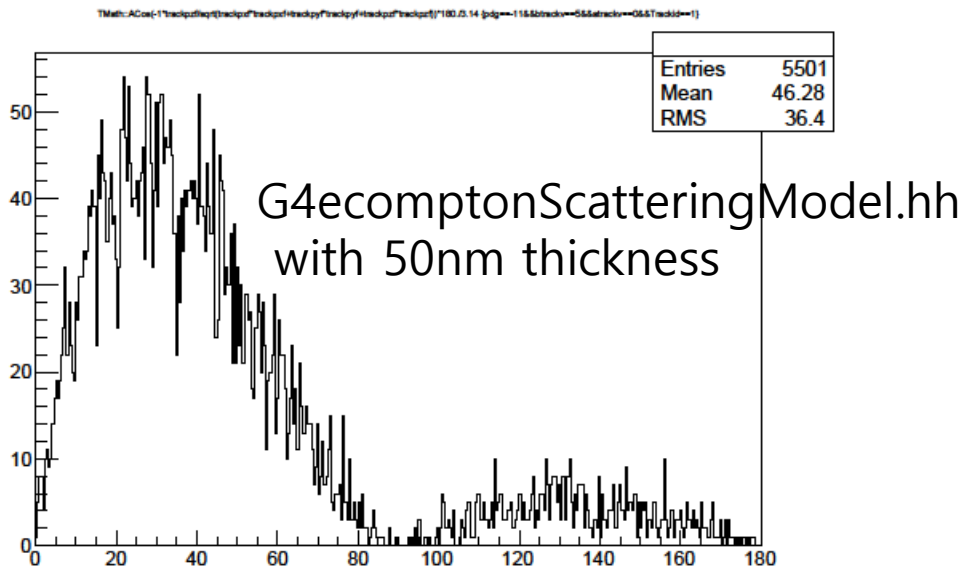




- Test data was taken during test operation of linac (3Hz test)
- No effect was shown in TOF data but more test is required.
- 6bar trigger test was also done and no difference is shown.
- We can test with linac trigger if it's needed

Positronium simulation issue





- SiN film in the positronium target has 30nm thickness
- Multiple scattering process doesn't work.
- Penelope library with energy limit option also doesn't work.
- Compton scattering works and I'm trying to test with check by reference.

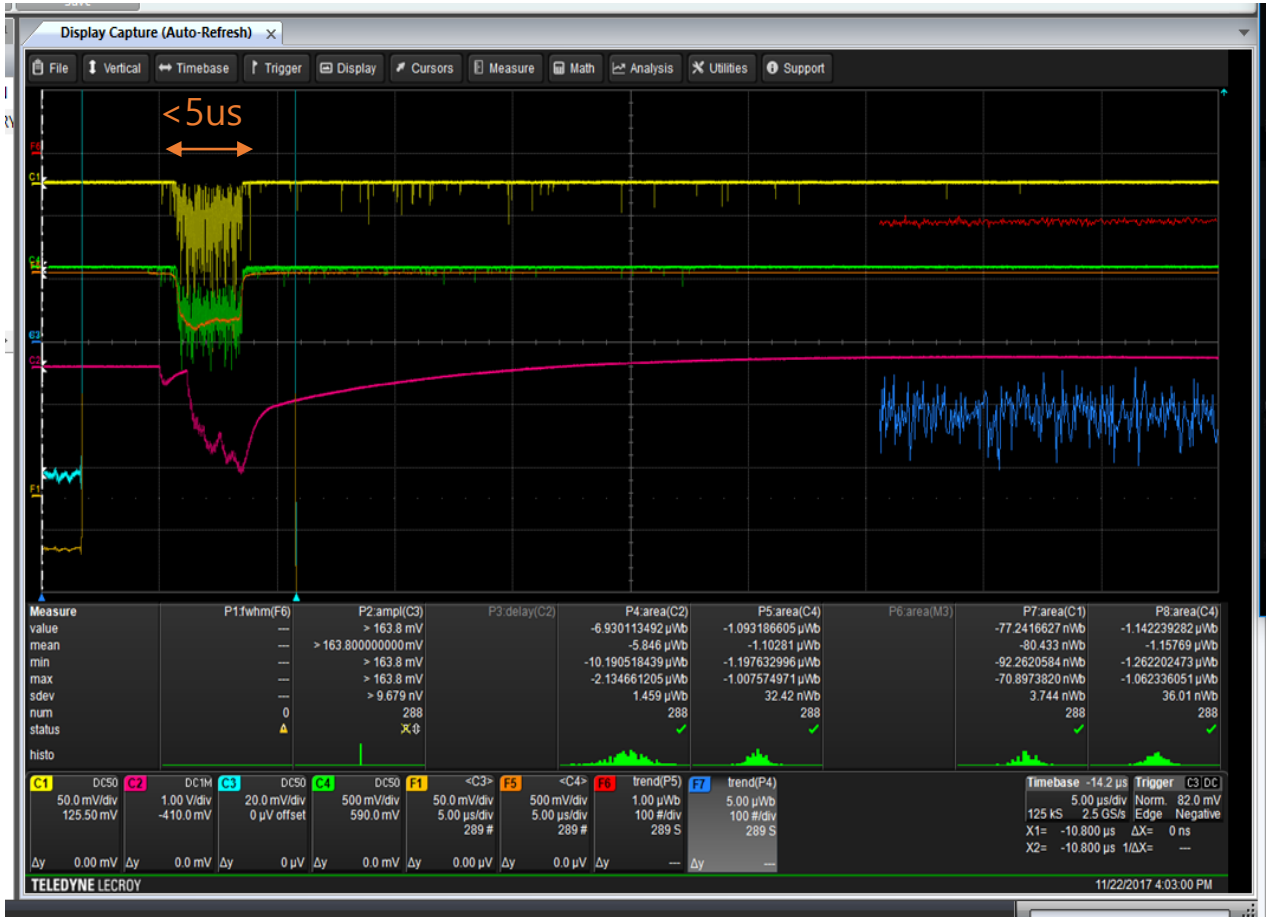
Status in CERN

- Question from others
- Expected energy spread from anti-P trap.
- Expected date for delivery of other TOF wall

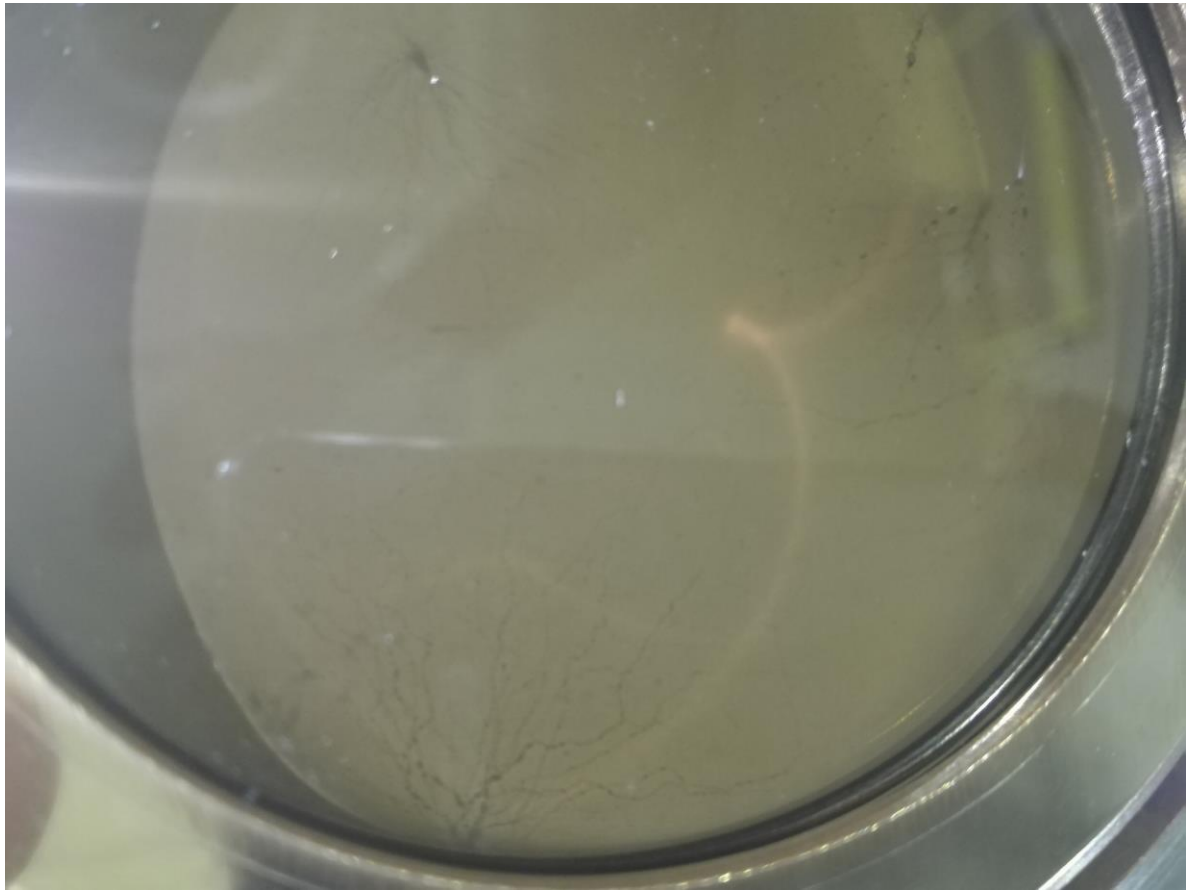
- Status in CERN
- Positron beam is shown.

(about ~1.e7positron/s expected for 300Hz)

- Test with increasing frequency from 3Hz to 150Hz was done and will be continued until 300Hz.
- Condition (70mA,8.2MeV electron beam)



Status in CERN



- View port in the linac is damaged as picture. (which is used to see beam intensity by YAG screen)
- Changed to blank flange and now beam is operated again.

To do list

- Collaboration meeting slide for TOF will be prepare
- Simulation for positronium has been prepared.
- John yves looks too busy to ask about relay issue