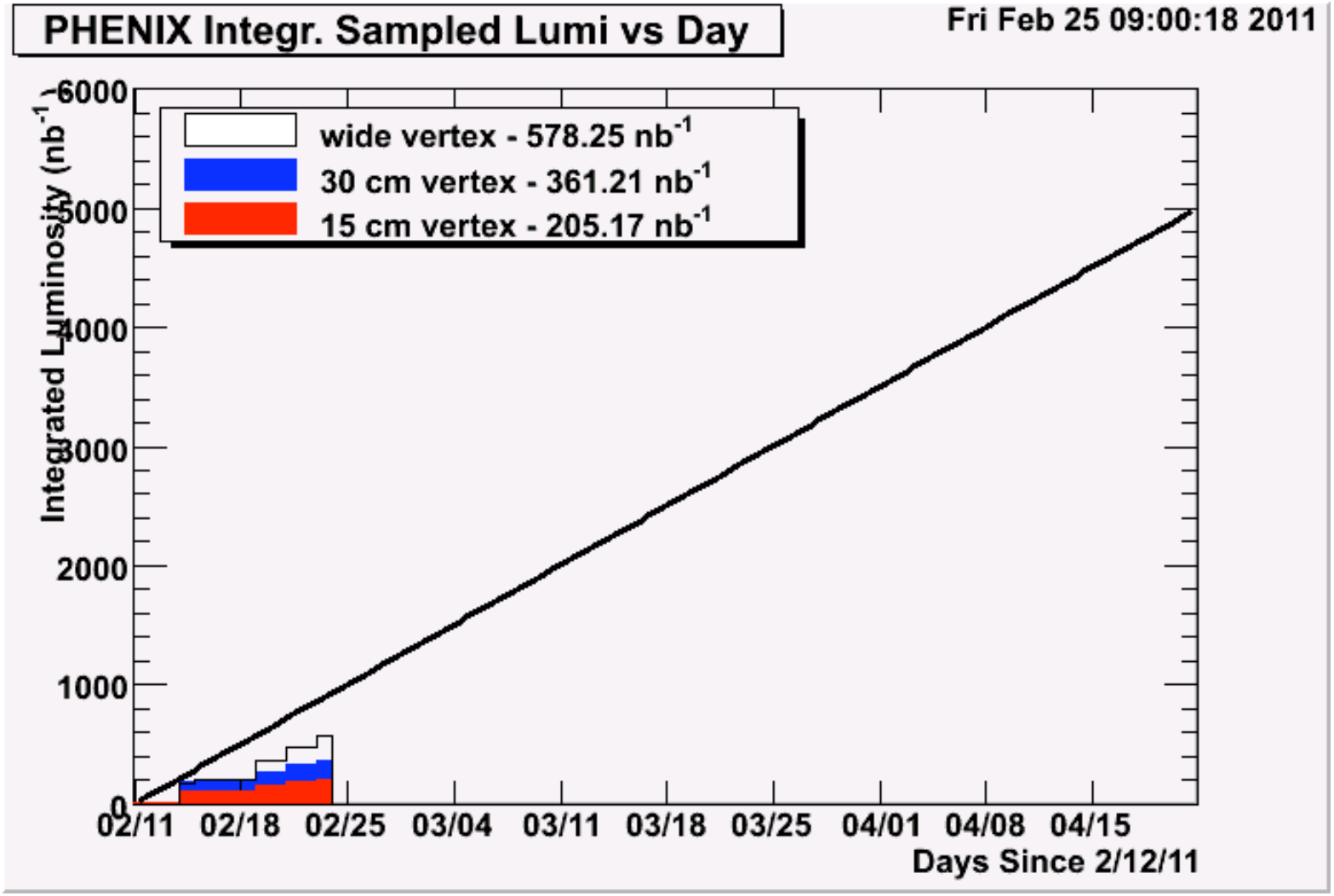
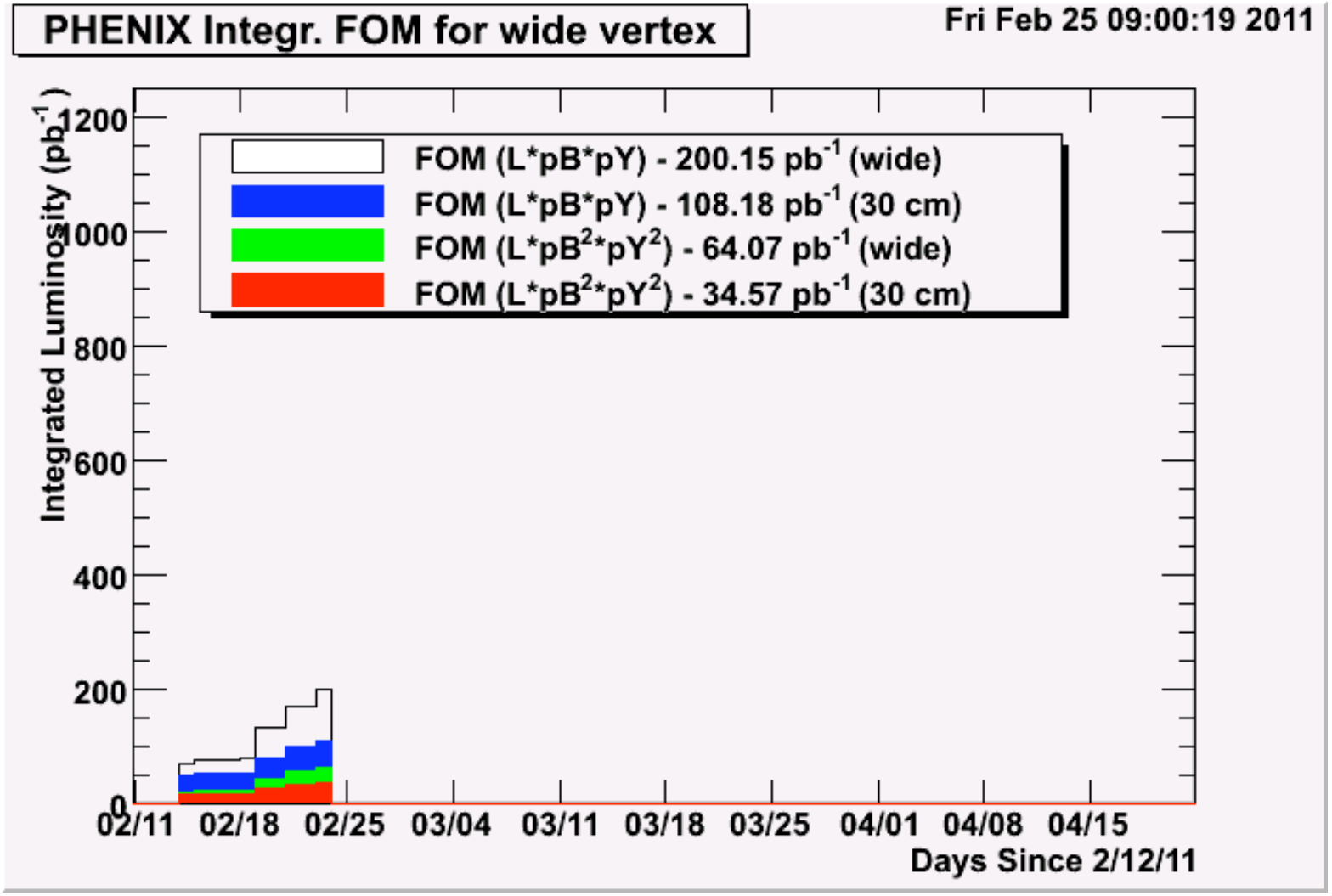
PHENIX Status

Takao Sakaguchi

Where are we in terms of luminosity



Where are we in terms of FOM



Summary of PHENIX status

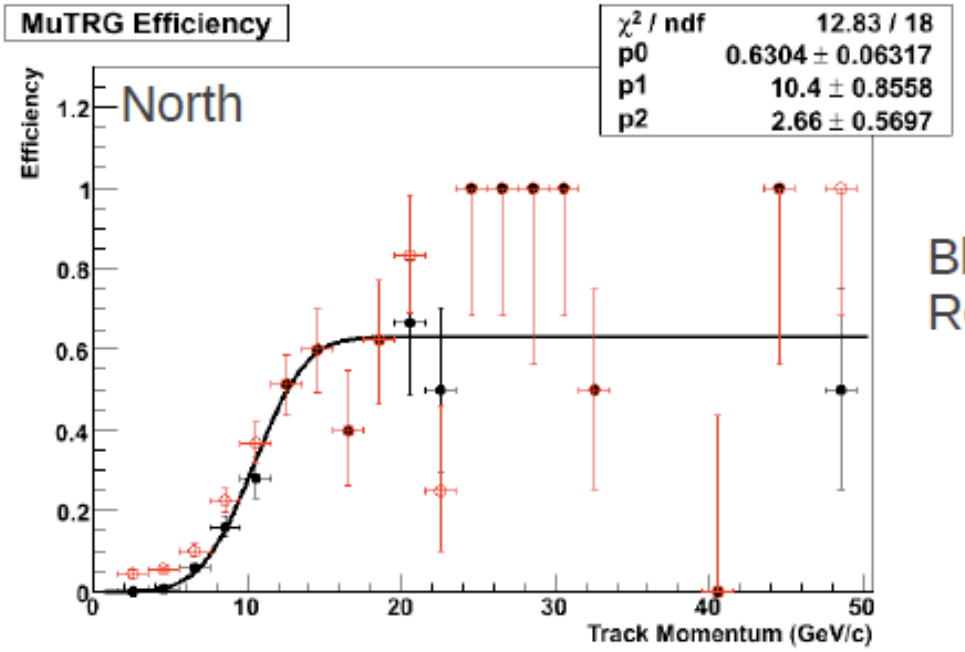
- Muon arm trigger will be ready after timing scan with one or two fills.
  - Timing scan, setting threshold for MuTr part is finished
  - Working on the timing for RPC for making coincidence with MuTr part
  - Close to start physics data taking
- Central arm is working fine
  - From time to time, tracking device needs maintenance work
  - VTX detector in commissioning on beam
- Local polarimeter started providing transverse polarization component in longitudinal beam
  - Thanks to Waldo and Vahid for setting up.
  - Current best: ~5% for both rings. More to follow
- Background in Muon arm (RPC) is still large
  - Collimator in-and-out test was carried out on Tuesday, and found that the beam hit to Q3 seems the origin of the background
  - Planning to install additional shielding in front of North RPC next Wednesday

Latest local pol result

- We will hear from Ciprian

MuTrig FEE status

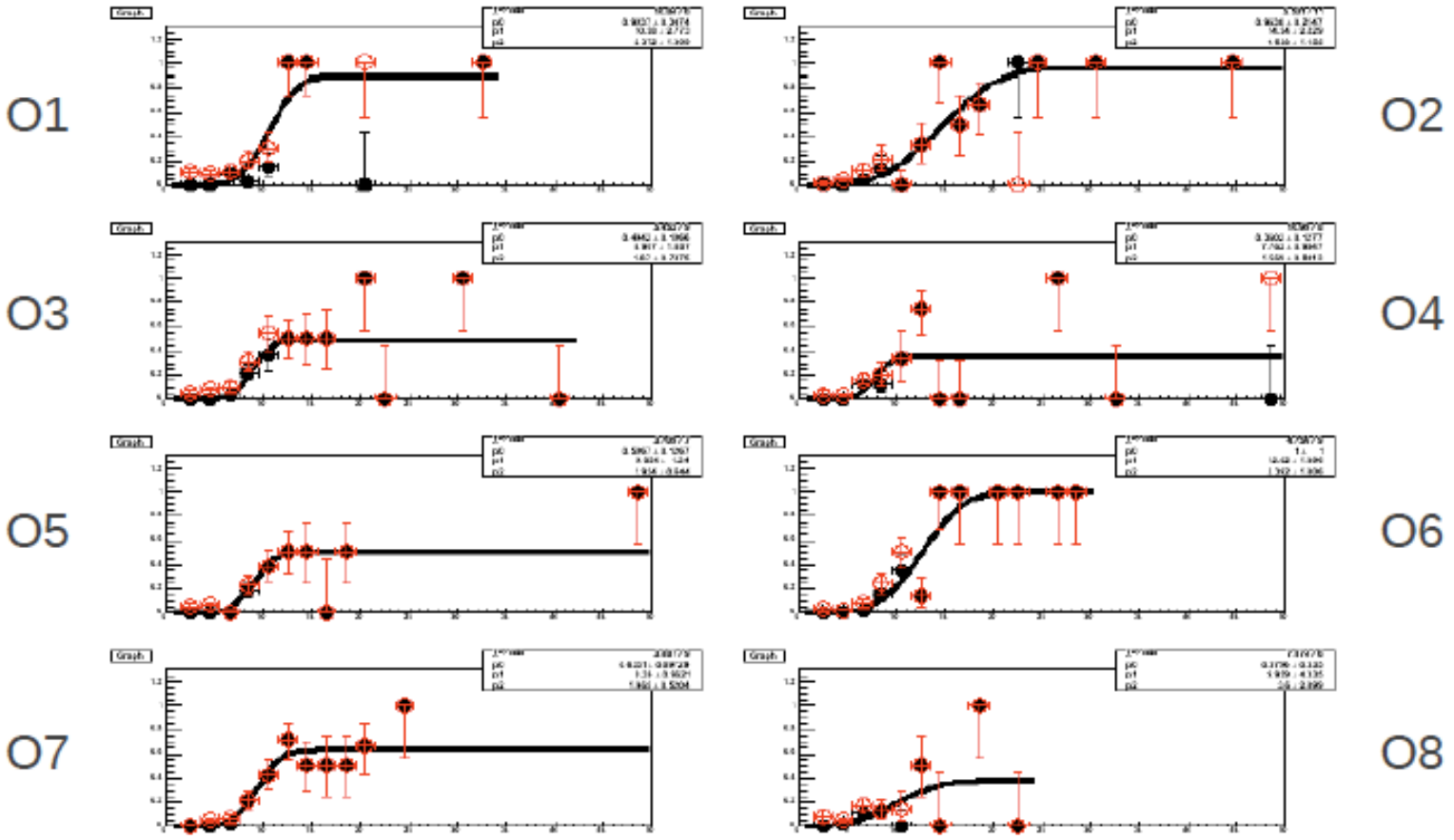
MuTRG-FEE efficiency (GL1 bit vs Emulator)



Black : Offline Emulator
Red : GL1 bit

- Δs<=1, LED, OR, LL1width=3, 40mV, w/ clustering
- Efficiency is low. Threshold at N-St2 is relatively high.
- South Oct1-4 is active too.

Octant-by-Octant Efficiency
LED, OR, L1w=3, 40 mV (North)



Black : Emulator, Red : GL1 bit

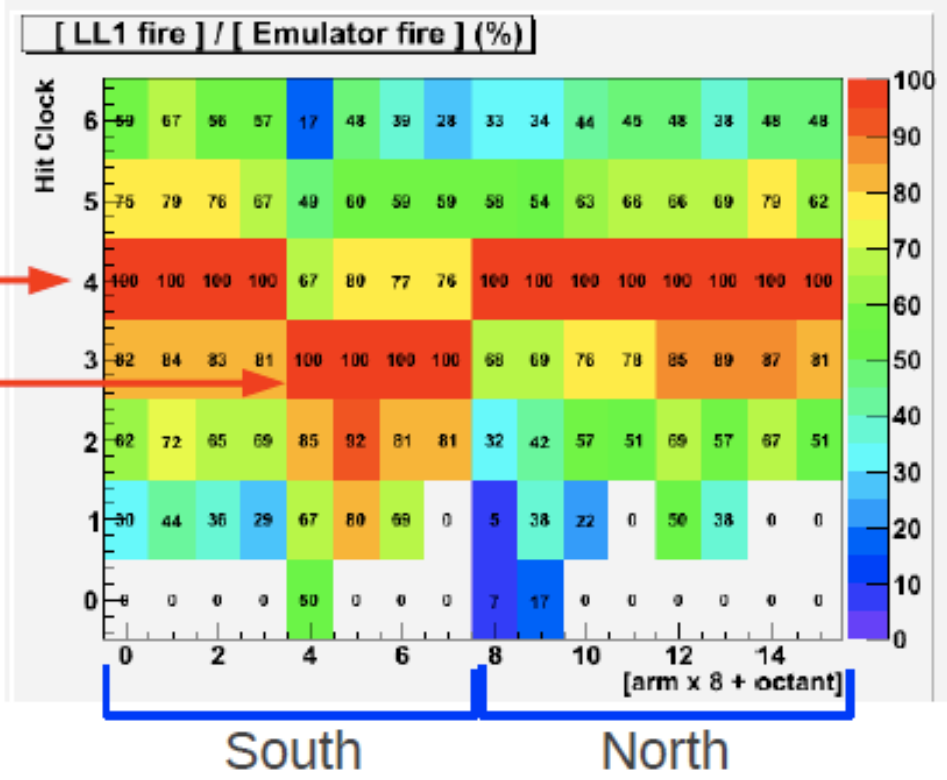
Courtesy of Yoshi Fukao

LL1 and Emulator comparison

Fraction of matching between LL1 and Emulator.

100% matching at BCLK=4 at North and South Oct1-4

LL1 output is later by 1 BCLK at South Oct5-8



- LL1 and Emulator show good agreement
- South Oct5-8 may be later.
  We will investigate more carefully

MuTRG-FEE data were recorded with 7 BCLK window

For RSC meeting

Courtesy of Yoshi Fukao

Rejection Power

Trig	Status	Prescale	Raw	Live	Scaled	Raw Rate
BBCLL1(>0 tubes)	Disabled	0	121366292	0	0	910.636 KHz
BBCLL1(>0 tubes) novertex	Disabled	0	195283095	0	0	1.467 MHz
ZDCLL1 wide	Disabled	0	21153288	0	0	164.972 KHz
BBCLL1(noVtx)&(ZDCN||ZDCS)	Enabled	0	85182743	662913	662913	664.125 KHz
ZDCN||ZDCS	Disabled	0	73926856	0	0	576.562 KHz
BBCLL1(>0 tubes) narrowvtx	Disabled	0	69285830	0	0	519.751 KHz
ERTLL1_4x4b	Disabled	0	15787	0	0	121.338 Hz
ERTLL1_4x4c	Disabled	0	456167	0	0	3.706 KHz
ERTLL1_4x4c&BBCLL1(narrow)	Disabled	0	130427	0	0	1.018 KHz
ERTLL1_E&BBCLL1(narrow)	Disabled	0	144333	0	0	1.129 KHz
MPC4x4a	Enabled	0	275893	1582	1582	2.083 KHz
MPC4x4c&ERTLL1_2x2	Disabled	0	41241	0	0	321.475 Hz
((MUIDLL1_N2D||S2D)||(N1D&S1D))&BBCLL1(noVtx)	Double click to make it the ref. trigger			0	0	2.384 KHz
(MUIDLL1_N1H||S1H)&BBCLL1(noVtx)	Disabled	0	2778238	0	0	21.825 KHz
(MUIDLL1_N1D||S1D)&BBCLL1	Disabled	0	3139804	0	0	24.562 KHz
CLOCK	Disabled	0	1246442625	0	0	9.383 MHz
MUON_N_2TRK	Disabled	0	15543286	0	0	119.188 KHz
MUON_N_RPCA	Disabled	0	48	0	0	0.449 Hz
MUON_N_RPCB	Disabled	0	8236	0	0	63.236 Hz
MUON_N_RPCC	Disabled	0	148466	0	0	1.160 KHz
MUON_N_SG1&BBCLL1&MUIDLL1_N1D	Disabled	0	56922	0	0	431.630 Hz
MUON_N_SG1	Disabled	0	11173335	0	0	86.221 KHz
MUON_S_2TRK	Disabled	0	271569	0	0	1.697 KHz
MUON_S_RPCA	Disabled	0	797418506	0	0	5.421 MHz
MUON_S_RPCB	Disabled	0	797415802	0	0	5.421 MHz
MUON_S_RPCC	Disabled	0	797416338	0	0	5.421 MHz
MUON_S_SG1&BBCLL1&MUIDLL1_S1D	Disabled	0	10074	0	0	82.437 Hz
MUON_S_SG1	Disabled	0	1862958	0	0	14.127 KHz

911 kHz

RP~37

24.5 kHz

RP~48

0.51 kHz

For RSC meeting

Courtesy of Yoshi Fukao

Plan for next week

- Move to Physics data taking with MuTrig FEE + RPC + BBC trigger
- Vernier scan
- Shielding for RPC on the scheduled maintenance day
- 1x3 bunch run after the maintenance
- VTX detector commissioning