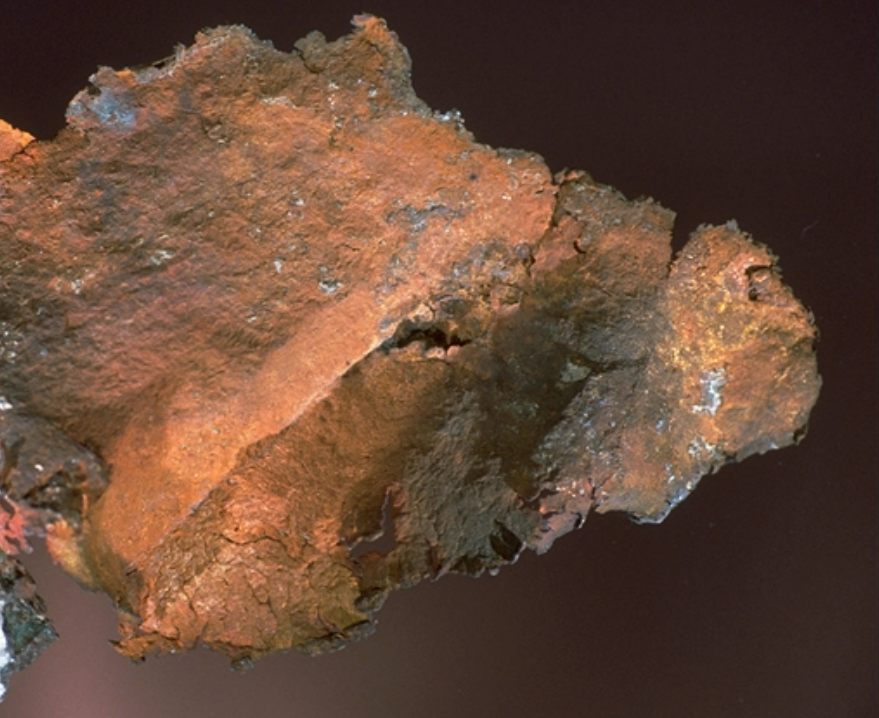
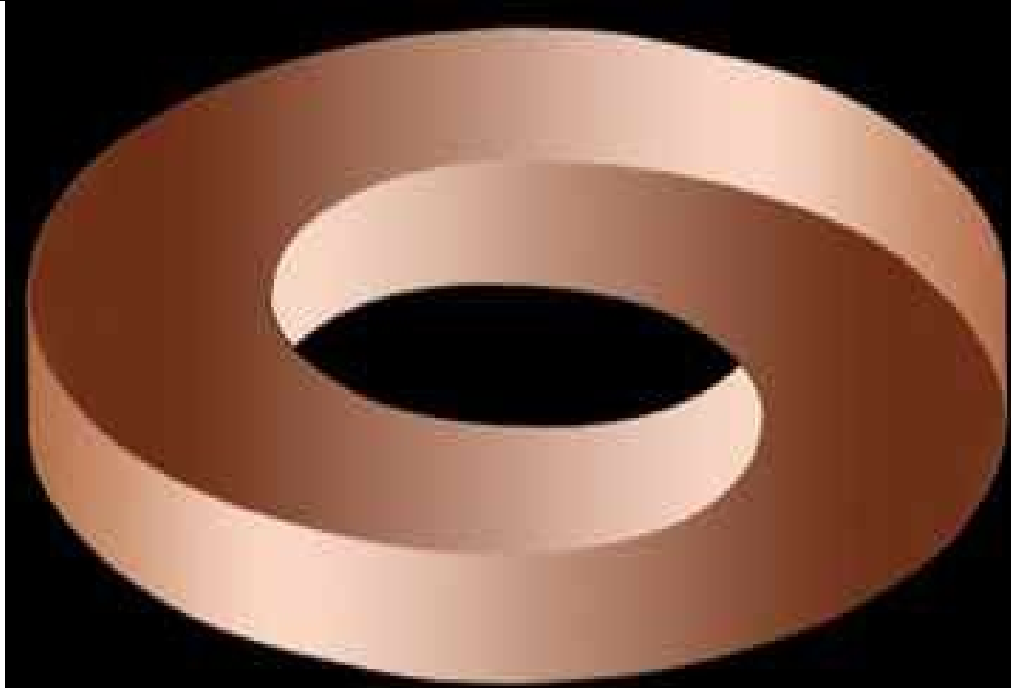




Machine status



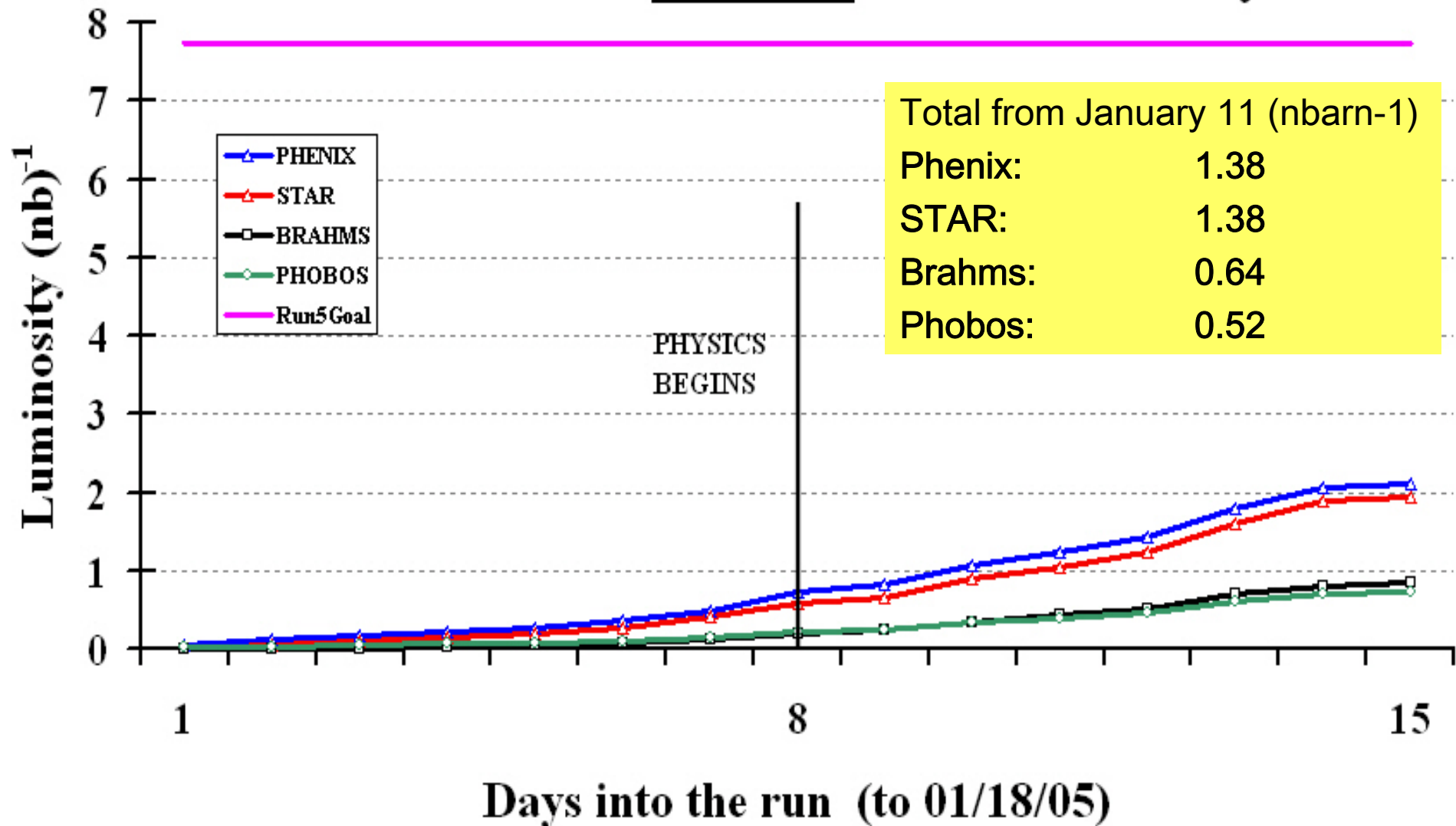
Machine-Experiments
January 19, 2005





Status - overview

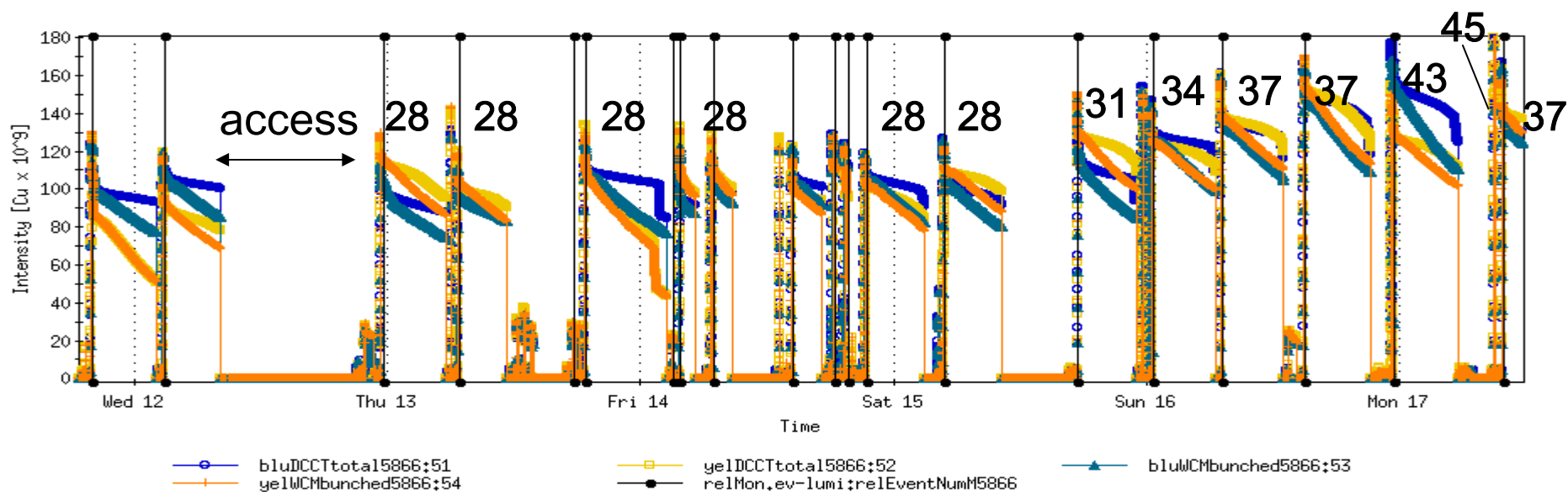
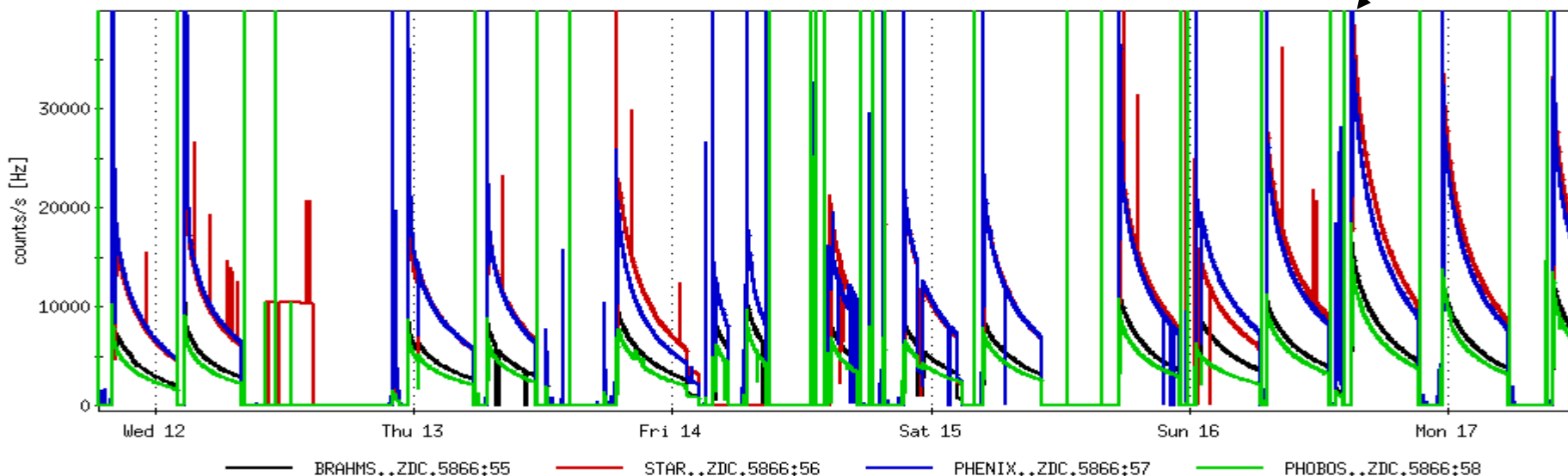
RHIC Run 5 Delivered Cu-Cu Luminosity





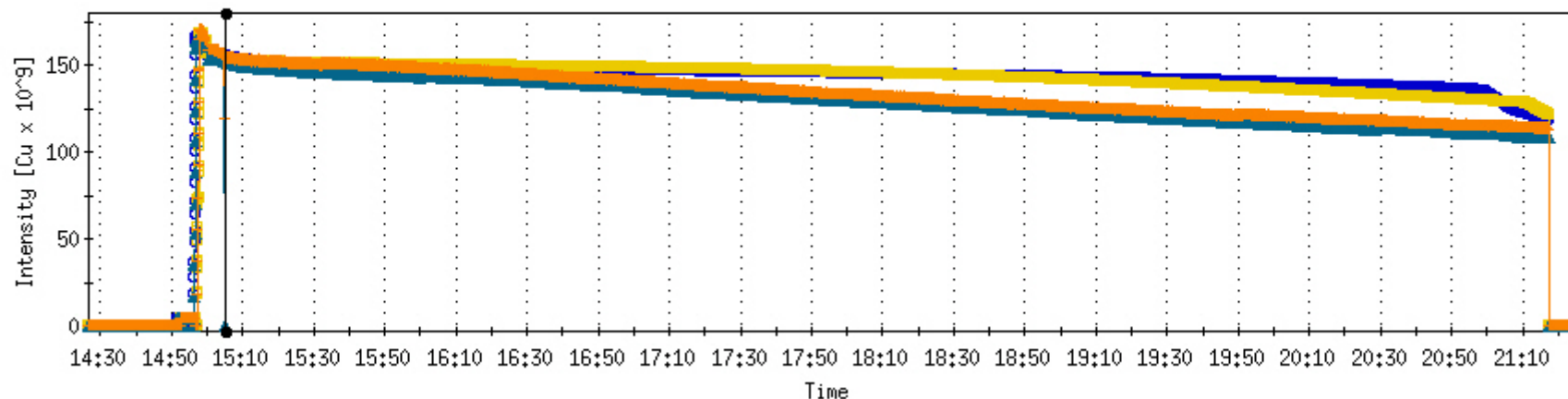
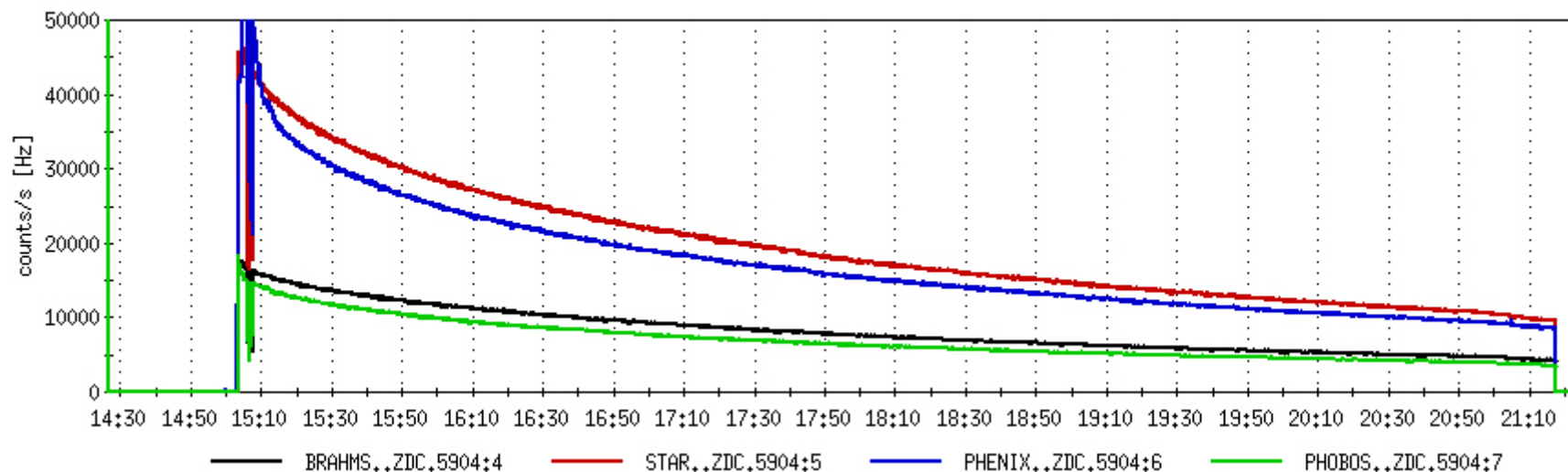
Intensity/collisions – Week 1

best





Week 1 – best store (31x31 4.5e9)



5904 – Sunday afternoon



Operations issues

- ❑ **Rates** Phenix/Star, Phobos/Brahms
(procedure for phenix steering)
- ❑ Reduce **time between stores**
→ data, revisit optimum store lengths?
- ❑ Gap cleaning (no cleaning or cleaning)
- ❑ Nominal **intensity – reproducibility**
(better with AGS, and low intensity interlock)
- ❑ **Transmission – reproducibility**
(auto-orbit correction, + regular re-tuning on ramp)
- ❑ **Ramp check/maintenance every morning**
(by day shift leader)
- ❑ **Use of configuration page**



Luminosity development

Ramp/store parameters now: 37x37 4.5 e9

limitations

Pressure rises

- ❑ **Phobos PR** with 43x43
- ❑ **transition pressure rise at warm section 4 o'clock** with 45x45

Losses at transition

Transverse Emittance

Background → not yet

Beam-beam → not yet

Luminosity development

- ❑ Increase bunch intensity **4.5→6-7e9**

Transition optimization for bunch intensity > 4.5e9

Emittance measurement, control (injectors, emittance growth RHIC)

- ❑ Re-try Increase number of bunches to 45-55

- ❑ **IR correction**, yellow
- ❑ **Common cavities**
- ❑ Test of **different working point** (ramp/store)



Back from access

Monday-Tuesday - many problems

- ❑ AGS main magnet and PS
- ❑ ODH alarms
- ❑ Repeated quenches
- ❑ RF cavity tuner failures

.....→impact on luminosity clear

Recover from access owl today:

- ❑ Support to operation (Greg, Todd...)
- ❑ Ramp maintenance (transmission)
- ❑ Revert to ramp/store **5904** (*Sunday- Phobos B*)