RHIC status

Chuyu Liu Time meeting 01/21/2020



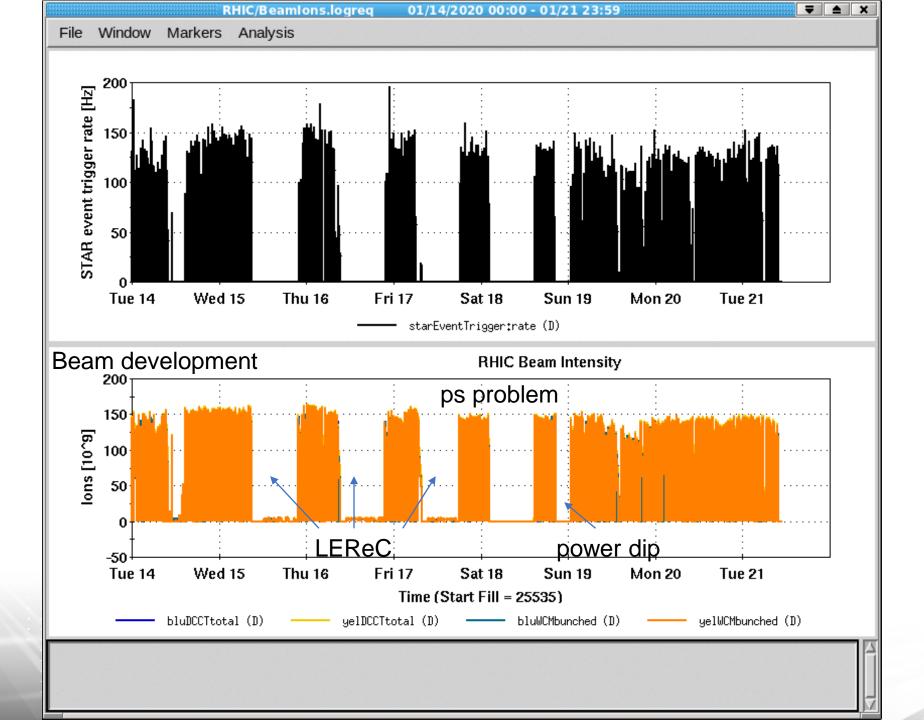


RHIC status

- RHIC has been running physics stores at beam energy 5.75 GeV/nucleon smoothly over last week.
- LEReC commissioning run 3 shifts.







Summary of beam development

- Moving tunes up to 0.16
 - Beam loss increase monotonically with higher tunes.
 - The benefit of slightly smaller beam size was overcome by high beam decay rate.
- Below integer tunes around 0.92
 - The beams went unstable with ~30 bunches due to suspected resistive wall impedance.
 - Further analysis is needed.





AGS intensity limit

- AGS intensity limit (total intensity per cycle) was raised from 8E9 to 9.6E9 on Wednesday Jan. 15.
- It would take more physics stores and continuous running to see the benefit.
- Flashes on the plunging stripping foil have been observed. Once it flashes, the old intensity limit will be restored.





Near-term plans

- We are on track to achieve the physics goals at beam energy 5.75 GeV/nucleon.
- On Jan 27th, switch-over to fixed target and LEReC dedicated ~2-week period to finish up fixed target experiments and optimize cooling performance.



