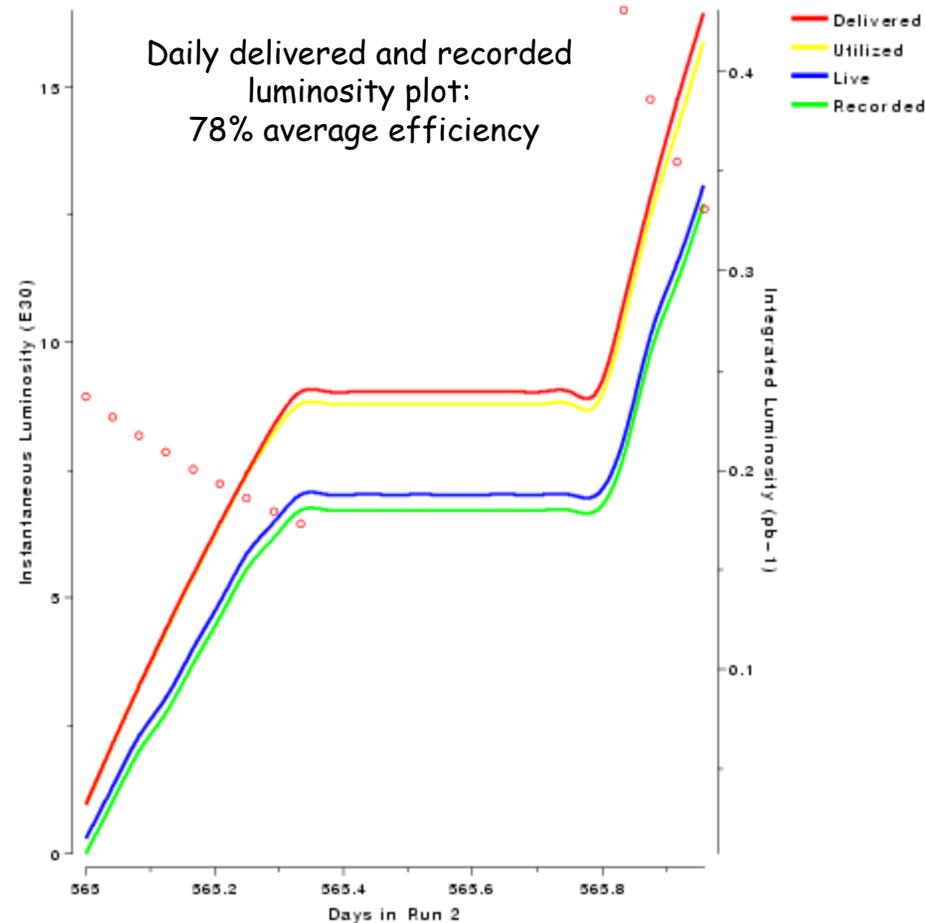
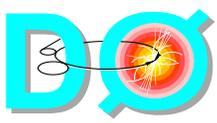


## Week of September 16 to September 22 DO Summary

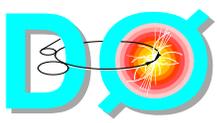
- Delivered luminosity and operating efficiency
  - ◆ Delivered:  $4.4\text{pb}^{-1}$
  - ◆ Recorded:  $2.9\text{pb}^{-1}$  (~66%)
- Data taking efficiency
  - ◆ no major hardware/software problems
  - ◆ a little lower then last week's 68%
  - ◆ large number of global runs with efficiency above 90%
  - ◆ increased Level 1 trigger rate to 400-450Hz and Level 2 trigger rate to 200-250Hz
- Issues caused 1+ hours downtime
  - ◆ Silicon readout and HV trips
  - ◆ CFT readout and downloads
  - ◆ L2 trigger system failures
  - ◆ Special runs
- Accelerator halo
  - ◆ reasonable
- Beam position
  - ◆ stable within 0.3mm from the detector center





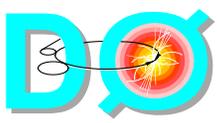
# DO Detectors Status

- Luminosity detector
  - ◆ Stable operation
  - ◆ Lower by ~2.5% luminosity during first 3 hours of Sunday store
    - ▲ crew failed to reset trip of luminosity scintillation counters
- Silicon detector
  - ◆ Power supplies are running well - no problems for 3+ months
  - ◆ Noises stable: ~94% of channels are in operation
  - ◆ High dark currents are causing trips in some sensors
    - ▲ HV fanouts leak currents
    - ▲ a few sensors leak currents are unstable
- Fiber tracker
  - ◆ Major issue is hot/empty groups of channels
    - ▲ readout related
    - ▲ in progress of studying this issue
    - ▲ affecting ~10-15% of channels
- Calorimeter
  - ◆ Lost BLS power supply during Sunday store
    - ▲ replaced during short access between stores
  - ◆ Different sources of low energy noises are under investigation
- Muon
  - ◆ Stable running
  - ◆ Progress on "data-integrity" issue
    - ▲ some of the error flags are not set correctly
- Forward proton detector
  - ◆ inserting pots during most stores



# Data Taking and Triggering

- Running physics trigger list 8.3 since last Thursday
  - ◆ minor changes to a few triggers in comparison with 8.2
  - ◆ designed for luminosity in the range  $(5-40)10^{30}$ 
    - ▲ peak prescale file is up from 30 to 40 - we are waiting for even higher luminosity!
  - ◆ keeping high  $p_{\perp}$  triggers un-prescaled at any luminosity
- After improving stability in trigger/DAQ over last 3 weeks we are able to set new trigger rates levels (~1.5-2 times above trigger version 8.2)
  - ◆ L1 trigger 0.40-0.45kHz
  - ◆ L2 trigger 0.20-0.25kHz
  - ◆ L3 trigger (to tape) ~50 Hz
- Total number of events collected over last week
  - ◆ ~7mln
- Farms reconstruction progress and plans
  - ◆ talk by Michael Diesburg today



# Summary

- D0 experiment is progressing well with physics data taking
  - ◆ no major problems with detectors/electronics/triggers/DAQ
  - ◆ all detectors are in readout
  - ◆ trigger list 8.30 is running on-line
- Number of access requests is steady over last 3 weeks
  - ◆ ~two one hour requests per week
- Weekly data taking efficiency is stable at ~65% level
  - ◆ quite a few runs have efficiency above 90%
  - ◆ a few days per week D0 operating efficiency is above 75%
  - ◆ still there are "bad" days when we are losing beam time
    - ▲ most of the problems are "one time" issues
    - ▲ a few long lived items (like SMT HV trips) require HV system modifications - in progress
- Congratulations to Beams Division with influx of new records
  - ◆ with 5pb-1/week we can collect all Run I data sample in ~1/2 year !