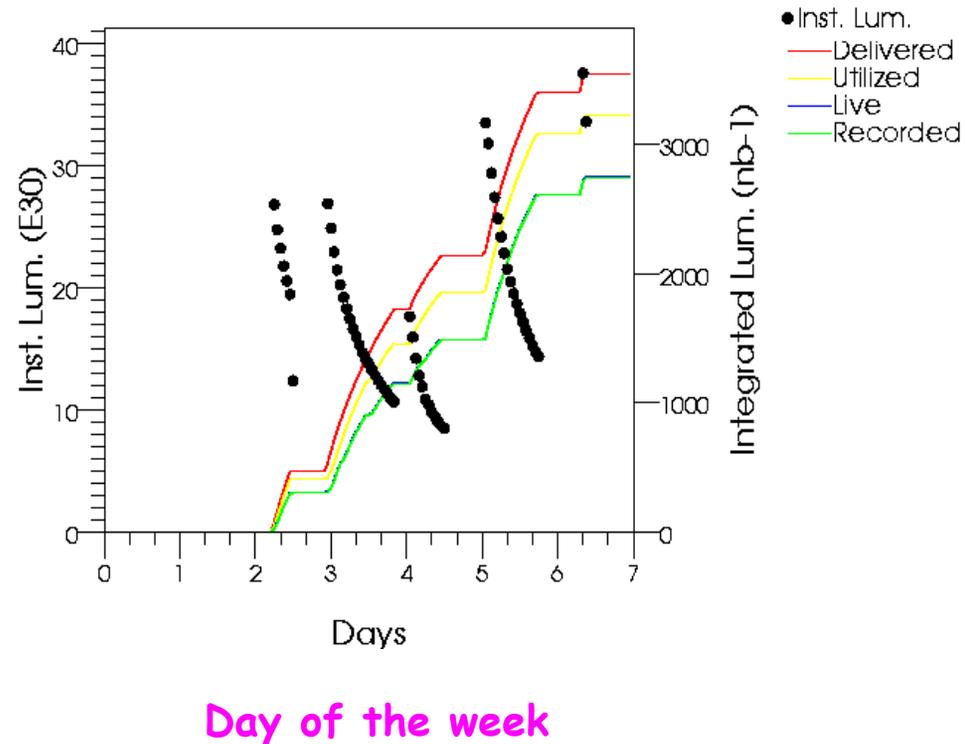
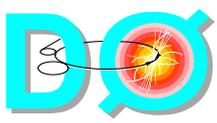


## DO Weekly Summary: March 10th to March 17th

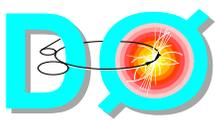
- Delivered Luminosity and operating efficiency
  - ◆ Delivered  $3.5\text{pb}^{-1}$
  - ◆ Recorded  $2.7\text{pb}^{-1}$  (78%)
- Quite a few problems affected our data taking last week
  - ◆ On-line cluster issues
  - ◆ Silicon readout problems
  - ◆ Fiber tracker triggering issues
  - ◆ Large front-end busy
- Total number of events collected
  - ◆ 8.2mln
  - ◆ All events have been reconstructed on the farms





# Operational Issues

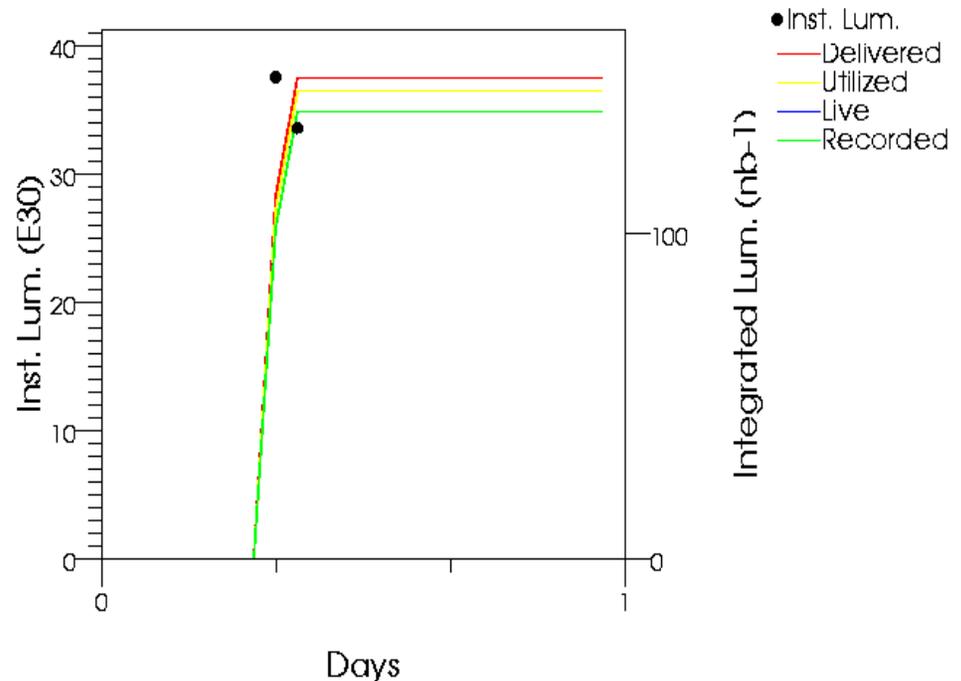
- Silicon readout
  - ◆ Addition of "tick and turn" number firmware did not go smoothly (done during January shutdown)
    - ▲ FEB signal has not been set correctly, reading out some events during digitization
  - ◆ Modifications went on-line last week
    - ▲ In process of analyzing results
- Fiber tracker trigger
  - ◆ Commissioning of this trigger in parallel with global physics data taking creates problems
- On-line cluster
  - ◆ Since early last week DO is limited in rate to tape to ~40Hz, down from ~60Hz in February
    - ▲ Complex problem which involves data handling software and L3 software
    - ▲ Experts are working on trying to understand it
- Front-end-busy in tracking crates
  - ◆ Fundamental problem related to lack of Level 1 buffers in tracking electronics and slowness of data transfer from front-ends to readout crates
  - ◆ Dead time is ~linear with increase in Level 1 rate
  - ◆ Some improvements could be done by improving data transfer rate and reducing amount of information shipped from front-ends
  - ◆ Currently we are at ~5% dead time running at ~1.0kHz Level 1 accepts
- Calorimeter
  - ◆ There are disturbing differences between precision readout and L1 trigger readout
  - ◆ Experts are in process of trying to understand where the discrepancy is coming from

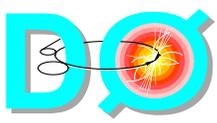


# Record Luminosity Store

- D0 started physics data taking within 5 minutes after store was declared
  - ◆ with full detector in readout
  - ◆ losses well within specifications
- Our data taking efficiency was ~93% during one hour of running
- BD got conflicting requests from the experiments
  - ◆ Clear procedure on how to handle conflicting requests has to be developed

One hour of running in 24 hours...





## Summary

- Even with quite a few problems with detectors/trigger/hardware DO averaged ~78% data taking efficiency over last week
- Calorimeter preamp temperature holds stably (lost fan ~ 2 weeks ago) and there are no indications that higher temperature is affecting performance
- Working hard on specific problems affecting quantity and quality of the DO data
  - ◆ Manpower is very limited
- Planning for "stack and store" week
  - ◆ No access requests at this time