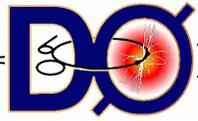


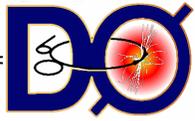
# *Proton ID Meeting*

- ICHEP Deadlines
- Software Update
- L1 Trigger Equations
- Trigger Workshop
- Mike Strang – Data Collection for FPD
- **URL:** <http://d0server1.fnal.gov/users/novaes/pid.html>



## **DØ Milestones for ICHEP 2002**

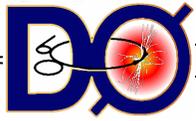
- 1/May: Certified Object ID's
- 1/June: Complete Data Taking
- 8/June: Complete Data Processing
- 15/June: Complete Express Stream (re-processing)
- 1/July: Results & Plots approved by Physics groups
- 8/July: Rehearsal of talks
- 12/July: EB approval of analysis and talks
- 24/July: first day of ICHEP 2002



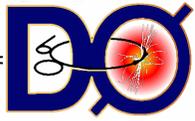
## **FPD Milestones for ICHEP 2002**

<http://d0server1.fnal.gov/users/novaes/tasks.htm>

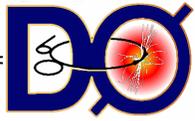
- April 4: Establish the results to be shown at ICHEP
- May 1: Certified Proton ID object  
Continue stand-alone data taking
- May 20: Monte Carlo samples for analysis ready  
Integration with DØ (Sdaq)
- June 1: Complete data taking for ICHEP
- June 8: Complete processing data for ICHEP
- July 1: Plots and Results approved for ICHEP
- July 8: Talk rehearsal for ICHEP
- July 12: Talk approved by the PID + QCD groups
- July 24: ICHEP starts



- **Unpacking** (Gilvan Alves)
  - *Unpacking utilities ready and released.*
  - *Mapping from detector to AFE channel ready for a single spectrometer.*
  - *Conversion from FPDDigiChunk to UnpDataChunk in progress.*
  - *Need calibration package for a final release*
  - *Starting to work in the offline unpacking*
- **Alignment** (Carlos Avila)
  - *Beginning MC studies of the algorithm*
  - *Expect to be ready by the end of January*
  - *Need real data to check background close to the beam*

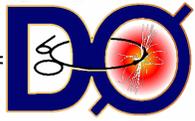


- **MC: Elastic + Bckg** (Carlos Avila)
  - *Beginning MC studies of the algorithm*
  - *Expect to be ready by the end of January*
  - *Need real data to check background close to the beam*
- **Tracking /FPDReco** (Jorge Barreto)
  - Single track reconstruction implemented
  - $\xi$ - and  $t$ -distributions obtained
  - Acceptance studies completed
  - Multi track is underway and almost completed
  - Waiting for the unpack algorithm
  - Final version in next release
  - Tracking algorithm successfully reconstructs elastic data sample in single hits environment.
  - Working in multhits version of the code
  - Online tracking waiting for AFE boards



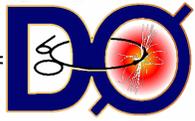
# *Software Update 3*

- **Single Interaction Tool** (Eduardo Gregores)
  - Multiple SVX primary vertex veto implemented
  - Maximum calorimeter energy cut included
  - In CVS: l3ffpd\_si – v.00.00.02
  - Waiting for Luminosity Monitor information
  - Still waiting for Monte Carlo samples to calibrate tool parameters, and Luminosity Monitor information tool
- **MI & Halo Rejection** (Jorge Molina)
  - Established that equations fit in FPGA with broad segmentation
  - Study of the accuracy of MI rejection adopting different segmentations



# Software Update 4

- **Database** (Christophe Royon)
  - *Pot positions and alarms in Oracle databases.*
  - *Need to add the beam parameters to calculate beam positions, and expected pot positions from Python program (WHO ?)*
- **Gap Tool** (Michael Strang)
  - Set groundwork in l2met worker to include rings of  $\eta$  to construct gaps
  - Rings are being put in the l2calmet\_analyze package
- **Offline Analysis/Online Monitoring** (Michael Strang)
  - Waiting for FPD integration in DØ to establish exact form of the tools



- **Monte Carlo** (Andre Sznajder)

## MC Samples

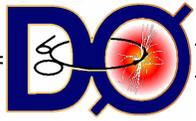
- 1000 events generated with Pompyt and PomWig
- Waiting for DØSim release to digitize MC sample
- POMPYT (Ingelman-Schlein + PYTHIA), POMWIG (Ingelman-Schlein + HERWIG) and SCIPYT(Soft-Color + PYTHIA) are already in the test release of DØdist.

## DØgStar/SIMPP

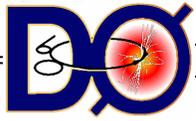
- FPD is fully integrated
- FPD module can be activate: set a DØgStar title card switch

- **FPDDigi** (Andre Sznajder)

- Final version in CVS
- Serban will include in DØSim since all packages moved from SIMPP
- Should be available in the next release



- **Firmware** (Mario Vaz)
  - **PU trigger equations:**
    - *VHDL code made from FPD tracking equations with fine segments for low  $t$  and with coarse segments for high  $t$ .*
    - *VHDL compiled and implemented for XCV600 using test files.*
    - *Firmware being implemented for XCV800 using DFE VHDL files for CFT/CPS.*
  - **DI and PI trigger equations:**
    - *VHDL test code being made*
- **Calibration** (Helio da Motta → Jorge Barreto)
  - Starting soon



# Next Steps

- Tasks page is updated. Visit:

<http://d0server1.fnal.gov/users/novaes/tasks.htm>

- Next convenors meeting: collaboration meetings (Apr. 24, 2002, 4-6pm, in the RaceTrack WH7X).

Tentative agenda includes “Groups Status and Plans” (10-15 min):

- b Id - Frank/Rick
  - Tau Id - Dhiman/Yuri
  - Forward Proton Id - Gilvan/Sergio
  - Luminosity - Michael/John
- How to improve communication and work share to meet deadlines