Trigger Robustness Workshop

Ricardo Gonçalo, Andrew Brandt

- Previous announcement in: Core SW and Slices Coord.Group 18/2/08
- Most of the agenda now in place and most speakers identified
- The Plan:
- Address all the issues relevant to trigger robustness in early data taking
- Learn from previous experiments and our own commissioning
- Interact with detector community on detector-specific robustness issues
- Find our possible

Description: Workshop aimed at assessing current trigger response to various problems such as data corruption, detector issues, beam-related issues, etc. and developing a strategy to deal with these problems

Tuesday 04 March 2008

09:00 Workshop Goals (10')

09:10->*10:30* **Previous Experience** (Convener: David Stro
Oregon))

09:10 D0/CDF Experience (30')

09:40 H1/Zeus Experience (20')

10:00 ATLAS M5 Experience (15')

10:15 Discussion (15')

10:30 Coffee Break

10:50->*11:40* **Level 1 Robustness** (Convener: Alan Watson
Birmingham))

10:50 L1 Calorimeter (15')

11:05 L1 Muon (15')

11:20 Discussion (20')

11:40->*13:00* **Data Corruption** (Convener: John Baines (*Rut*
Laboratory))

11:40 Data Corruption Studies (15')

11:55 Error Handling (15')

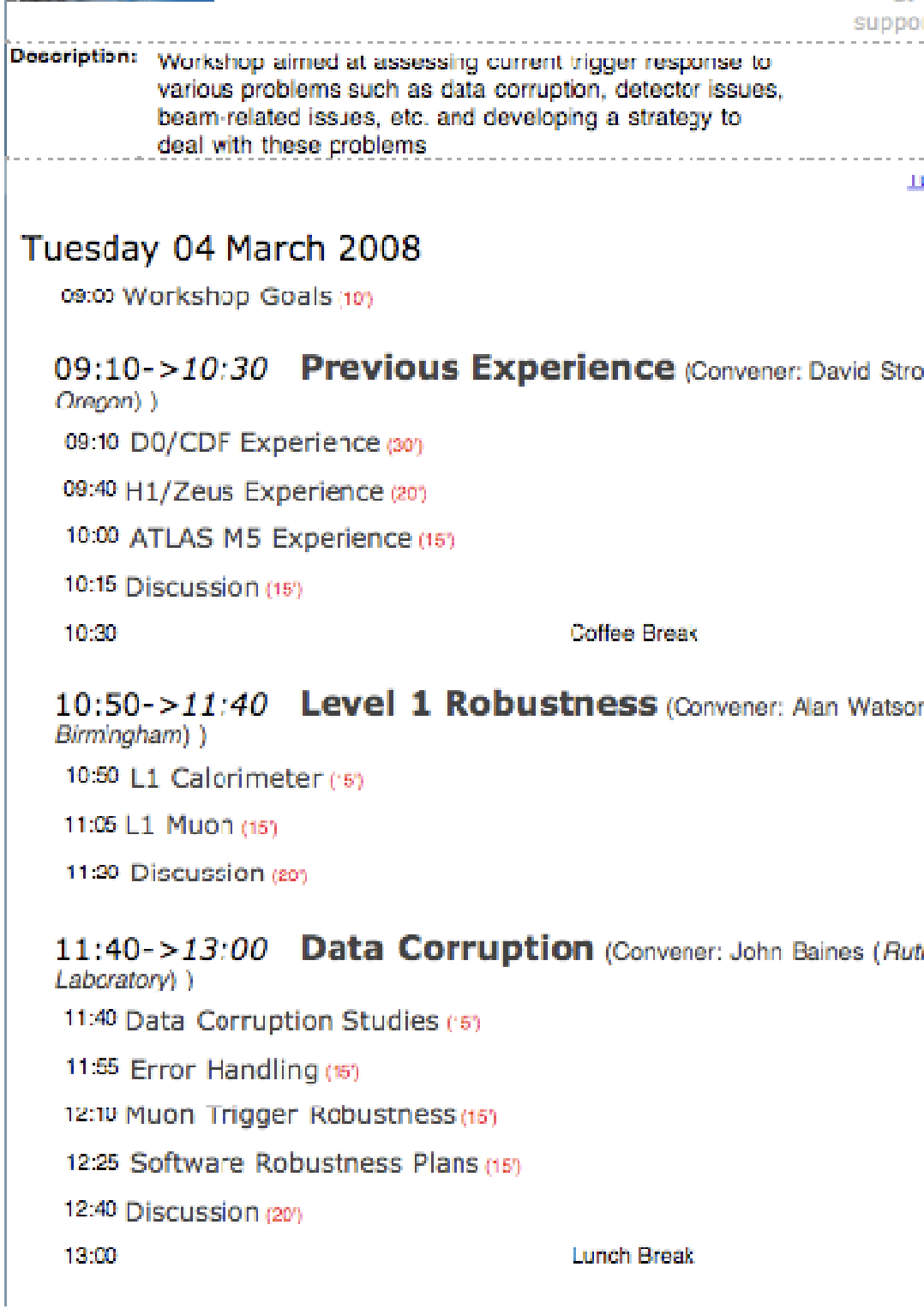
12:10 Muon Trigger Robustness (15')

12:25 Software Robustness Plans (15')

12:40 Discussion (20')

13:00 Lunch Break

- Build list of robustness issues to be addressed
- Find ways to address these issues
- Find e.g. what data samples are needed to perform studies
- Follow up on issues in later meetings, including a follow-up Robustness Workshop



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- Previous experience - D0/CDF, ZEUS/H1, ATLAS M5
- L1 Robustness
- Data Corruption
- Slice Studies I
- Detector Issues
- Slice Studies II

- Sessions designed to foster discussion
- Data Corruption probably most advanced
- Plan for Slice Studies sessions:
  - List of issues that may affect each slice
  - Results from studies on non-perfect data and beam backgrounds(calorimeter noise/hot cells, misaligned inner detector/muon spectrometer, beam-gas, beam-halo, pileup)

Misaligned data:

- Muon slice produced own AODs/AANTs with 3 scenarios: aligned ID misaligned MS, misal.ID align.MS, misal.ID misal.MS
- e/gamma sample has “1-week” (?) misaligned samples from e/gamma performance production
- Samples for tau, Bjet and Bphysics slices (AODs/CBNTs) with very large misalignment are in the production system (only 7/30 jobs in a tau samples done yet)
- Samples with “1-day” misalignment constants (AODs/ESDs) derived during FDR-1 being produced in Geneva by Szymon (first 28 AODs produced) - how to distribute the data?

- Hot cells, calorimeter noise (FDR-1 samples):
  - e.g. /castor/cern.ch/grid/atlas/t0/perm/DAQ/FDR-1/day1-05-02/fdr08_run1.0003051.MinBias.daq.RAW.o1._lb0007._sfo01._0001.data
- Beam backgrounds (produced by Alden Stradling):
  - Beam-halo: /castor/cern.ch/user/s/stradlin/PileupNM/misal1_mc12.007499.singlepart_empty/halo
  - Beam-gas: /castor/cern.ch/user/s/stradlin/BeamGas_1.1/pileup/misal1_mc12.007499.singlepart_empty.digit.RD

Conclusions

- Robustness workshop agenda almost ready:
- http://indico.cern.ch/conferenceOtherViews.py?view=standard&confId=29007
- First iteration: will be followed up in different forums and possibly a second workshop
- Should lead to a list of potential weaknesses and a plan to address them in the run up to data taking