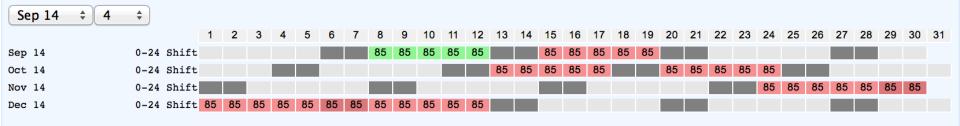
# Jet Trigger Planning

R.Goncalo (LIP), D.Miller (Chicago) Jet Trigger Meeting, 22 Sep.2014

## Monitoring and Commissioning

- Monitoring:
  - Migrated to xAOD and introduced menu awareness
  - Lee's valiant efforts so far. More effort needed?
  - https://twiki.cern.ch/twiki/bin/viewauth/Atlas/HLTTrigMonHowTestOfflineCode
- Milestone weeks:
  - M5: 8 − 12 Sep.
    - Ran one chain j0\_perf\_L1J10
    - Two more chains configured but weren't used: j0 perf L1RNDM, j0 perf L1MU10
    - Mario kindly joined effort, but won't be there for M6
  - M6: 13 16 Oct
    - Need to prepare to run monitoring online in M6
    - Sebastien and Aparajita both at CERN
    - Training?
  - M7: 24 28 Nov
    - Full shift crew for combined cosmics run
- OTP task: <u>Jet and MET Slices Expert on Call</u>



#### Menu evolution

- The clock is ticking to have a menu for MC production and for start up
  - Major issue for us will be PS vs FS discussion (see next page)
  - Will determined menu choices
- Menu milestones:
  - Menu for MC15a to be defined and approved by 11 December
  - $-0.5-1 \times 10^{34}$  menu to be prepared by 30 October
- Relevant meetings:
  - 2/10 Menu Coordination Group
  - 16/10 Slice Coordination Group
  - 30/10 Menu Coordination Group
    - Prepare for P&P week, 0.5-1.0 10^34 menu discussion
  - 13/11 SCG
  - 11/12 (Probably) Menu Coordination Group
    - Approve MC\_pp\_v5 menu for MC15a production

### PS vs FS again

- One of the outputs of the HCW was further impetus to run full-scan
  - L1 -> L1.5 (calibrated?) + selection -> HLT full scan
- Presentation at this week's TGM (David or me) to discuss this
  - Serious implications on need to buy more CPUs
- Advantages of doing full scan:
  - Benefits to multi jets and substructure calibration, pileup suppression, edge effects
  - Calibration and especially pileup suppression as in offline
  - Reduce overheads when running several jet sizes and share resources with MET
- Look at the detailed timing
  - Being followed up in/with the HLTCalo group
- Possibility to run L1.5 followed by a hypo
  - Apply had calibration to L1.5 jets to improve on L1 resolution
- Show performance indicators of FS vs PS compared with offline

## Other activity

- 2011 paper:
  - Should be in the final run to completion
  - Waiting for forward jet turn-ons from Rob; anything else?
- Need more information on:
  - Effect of pileup and pileup suppression techniques (Ana)
  - Use of tracks in jets (Ruchika, Erich)
  - Menu optimization (Rob, Lourenço, Markus?)
  - E/p trigger development (Joakim)
  - More substructure developments in trigger (Markus?)
- Software development (Peter and Nuno)
  - Need to have L1.5 running urgently
  - Implementing calibration options
- Need to keep validation activity ticking (Dilip, Sebastien, Tom)
  - Please keep David and me in all the necessary loops