

# Single-beam chains

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- Being setup in TriggerMenuPython (Rasmus):
  - In SingleBeam\_v1.py and SingleBeam\_v2.py
  - First phase (SingleBeam\_v1.py):
    - MBTS commissioning with 32 L1 items + MBTS\_A/MBTS\_C
    - HLT: taus more or less complete; rest incomplete
  - Second phase (SingleBeam\_v2.py):
    - Only L1 so far
- Would like to have L2 and EF algorithms with minimal changes:
  - No c++ changes if possible
  - Loose tunings (parameters) of FEX and hypos
- So far:
  - Loose chains planned from each slice (slice contributions later)
  - Chains starting from MBTS/something else:
  - T2CaloEgamma:
    - Start from MBTS\_A or MBTS\_C and open wide ROIs
    - Add a Hypo algo after T2Calo with very loose cuts
  - TrigEgammaRec:
    - EF AllTeAlgo to do unseeded full-calorimeter reconstruction (Phillip)
  - Currently no tracking for either L2 or EF: to be added

# Phase 2 Single beam / Introduction of the HLT

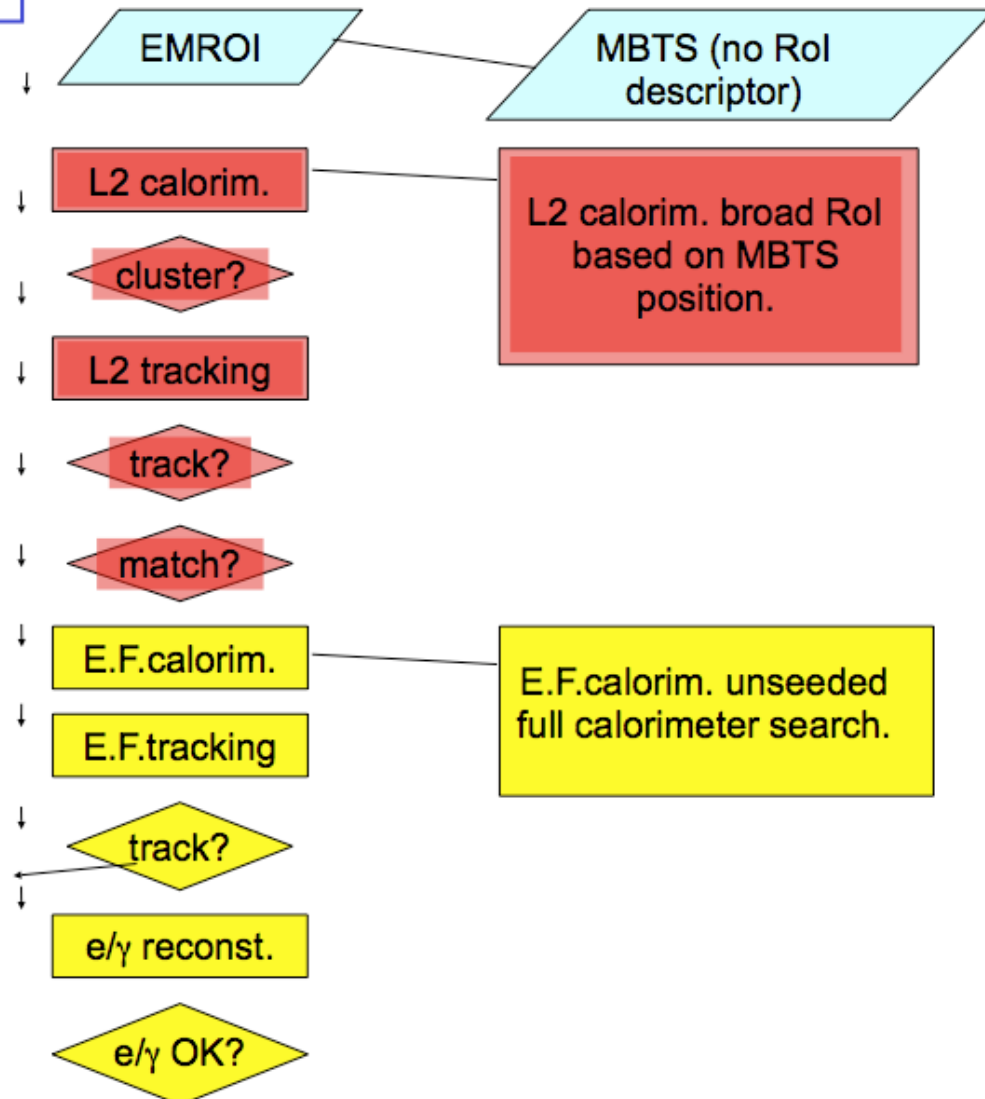
Making the most of MBTS commissioning data

## e/γ Selection Chain

Level 1 **Region of Interest** is found and position in EM calorimeter is passed to Level 2

Level 2 seeded by Level 1  
Fast reconstruction algorithms  
Reconstruction within RoI

Event.Filter seeded by L2  
Offline reconstruction algorithms  
Refined alignment and calibration



Naming: e.g.

e15: electron  $E_T > 15$  GeV

g10i: photon  $E_T > 10$  GeV, L1 isolation

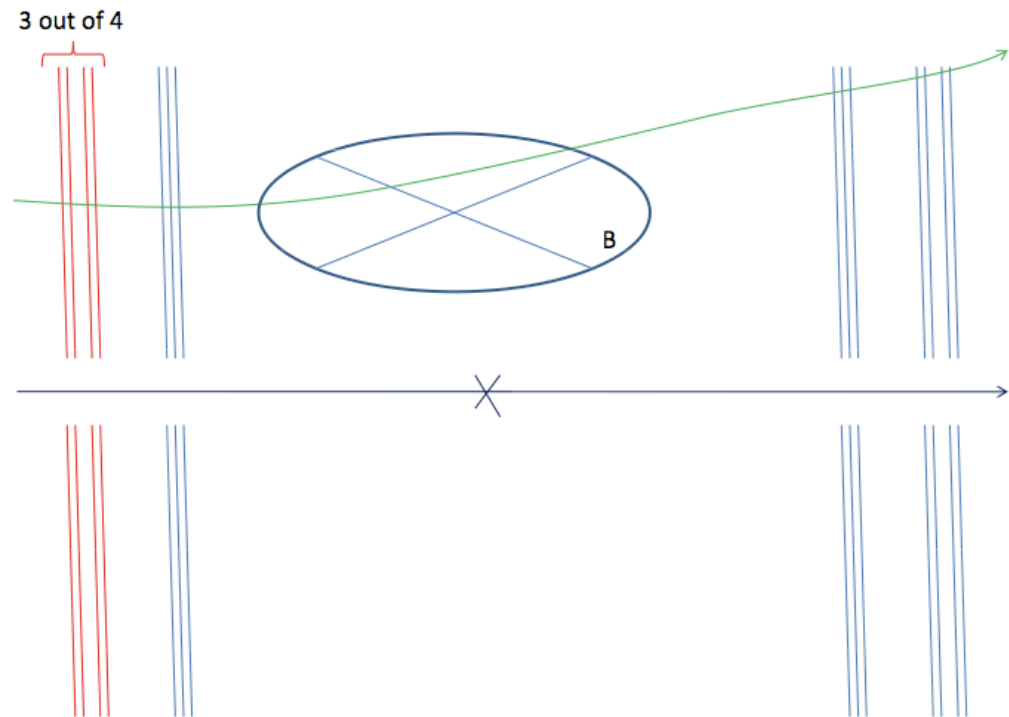
# T2CaloEgamma from MBTS

- Tested online (Denis and Alex)
  - NAV\_ERROR returned by algo when no TrigEMClusters produced
  - All events sent to debug stream
  - Needs minor fix to algo (would always be necessary)
  - Taken out of the menu; Alex working to re-integrate it
- Points to necessity of testing new chains online asap

# L2 muon full scan

- A muon trigger from the endcap is possible (see talk by Masaya) in the last Core & Slices meeting  
<http://indico.cern.ch/conferenceDisplay.py?confId=24854>

- Plan to use a chain modified from mu4\_dimu\_fs
- Starts from L1\_MU4
- HLT chain counter 390
  - L2\_MU4\_DiMu\_FS
  - EF\_MU4\_DiMu\_FS
- Uses TrigDiMuonFast at L2
- Plan to use existing L2 setup in new chain



# Plans

- This week expect to have T2Calo running from MBTS
- Add tracking (full scan)
- Add full-scan muon chain from L1 endcap item
- Anything else?