

Triggering Tau @ CMS

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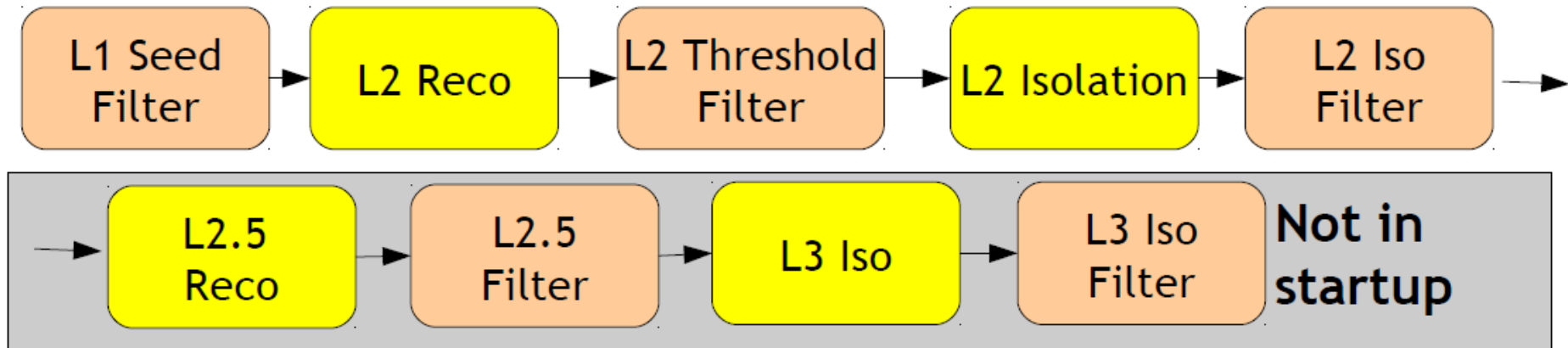
Based on the talk of M.Bachtis

“Tau High Level trigger Status and Plans”

23/02/2010

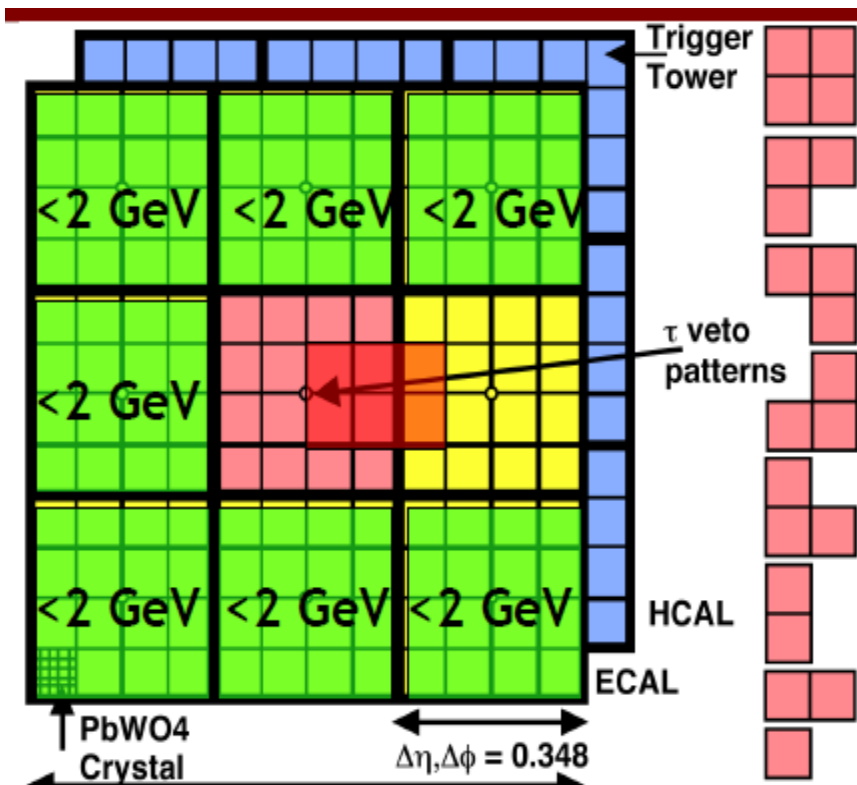
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Tau High Level Trigger



- **L1Seed Filter**
 - Filters L1 Decision (OR between a L1 Tau and a L1Jet path)
- **L2 Reconstruction**
 - Reconstructs jets in a cone of 0.2 and applies threshold
- **L2 Isolation**
 - Applies ECAL Isolation in an annulus around the L2 jet
- **L25 Reconstruction**
 - Reconstruct the leading track in a narrow cone around the jet
- **L3 Isolation**
 - Reconstructs tracks in a larger cone and applies track isolation

L1 Trigger



- In L1 Trigger, there must be a Jet with low activity around the seed.
- A criteria for choosing a Jet or Tau

Remarks

- 1) Triggering the Tau in HLT, is similar to the tau selection.
- 2) Due to low Efficiency of Tau triggering, usually it is preferred that if there are other leptons like, e, mu in the channel, lepton triggering be used.