Triggering on displaced decays in ATLAS

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Decays in the inner detector and calorimeters

Possible trigger object
Trackless jets that contain a muon

Event generator: Hidden Valley Monte Carlo 0.5
M. Strassler to appear

Display program: Daniele Depedis

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Decays in the Calorimeters

Possible trigger object:
Jets with large $E_{\text{HAD}}/E_{\text{EM}}$

Event generator: Hidden Valley Monte Carlo 0.5
M. Strassler to appear

Display program: Daniele Depedis
Decays in the Muon system

Possible trigger object:
Exceptional # of clustered level-1 muon triggers

Event generator: Hidden Valley Monte Carlo 0.5
M. Strassler to appear

Display program: Daniele Depedis
Level 2 trigger objects

- Decays in the Inner Detector (10 - 400cm)
  - Jet with no tracks, that contains a level 1 muon
- Decays in the Calorimeters (200 - 400cm)
  - Unique HCAL to ECAL ratio
- Decays in the Muon System (400 - 700cm)
  - Anomalous number of level 1 muon triggers