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VBFTri gger LepHad2012

Introduction

This twiki provides documentation for the VBF triggers in HSG4.

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Usage

See the Lepton_VBF_Trigger_LVT section of the HSG4 lep-had twiki for usage in your analysis!

Logic for avoiding L1 trigger bias

We want to measure the efficiency for an offline jet to be matched to a L1.5 jet. For Wjet events, we need to avoid trigger bias at L1. To do this, we need to require that something other than our jet fires the tau piece of the L1 trigger. Here is one way we could do this.

```
def atLeastOneTag(jets):
    for jet in jets:
        if matchedL1(jet):
            return True
    return False

def matchedL1(jet):
    < trigger matching voodoo >

for probejet in selectedjets:
    otherjets = copy(selectedjets)
    otherjets.remove(probejet)
    if atLeastOneTag(otherjets):
        # you now have unbiased probe jet!
        histogram.Fill(probejet.pt)
```

Notes

v00-03-03

- First pass at p1344 tau d3pds
- Analyzed periods G+ (Muons) and H+ (Egamma)
- Required at least one selected muon (Muons) or electron (Egamma)
- Missing: L1_2TAU11I_EM14VH

```
dq2-ls "user.tuna.data12_8TeV.*.Muons.NTUP_TAU.*p1344.htt1h.v00-03-03/"
dq2-ls "user.tuna.data12_8TeV.*.Egamma.NTUP_TAU.*p1344.htt1h.v00-03-03/"
```

Tasks

- 2013-02-13: Justin @ Lephad [↗](#)
- 2012-12-13: Justin @ Lephad [↗](#)
- 2012-12-06: Justin @ Athens Trigger Workshop [↗](#)

- 2012-11-19: Justin @ Tau Triggers [↗](#)
- 2012-11-07: Alex @ Trigger General [↗](#)
- 2012-11-07: Alex @ Lephad [↗](#)
- 2012-09-20: Justin @ HSG4 [↗](#)
- 2012-09-19: Justin @ Trigger General [↗](#)
- 2012-09-17: Justin @ Jet Triggers [↗](#)
- 2012-09-10: Justin @ Jet Triggers [↗](#)
- 2012-08-27: Justin @ Jet Triggers [↗](#)
- 2012-08-27: Justin @ Tau Triggers [↗](#)
- 2012-08-20: Justin @ Jet Triggers [↗](#)
- 2012-08-15: Justin @ Trigger General [↗](#)
- 2012-07-25: Justin @ Trigger General [↗](#)

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