

Weekly meeting

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outline

- Dual-tool
- Validation task
- upper limits at Mh500 of bbtatau

Toys

asymptotic

Developing a dual-tool smearing the IP of Muon for the xAOD

- There is a problem that the tool can't retrieve a special variable named *numberOfInnermostPixelLayerHits* in root with any version.
- The tool can retrieve other variables ,e.g. *numberOfBLayerHits* in root when I setup the root within the version below 2.1.*.
- When I setup the root within the version beyond 2.1.* , the tool can't retrieve any variable of SummaryType.

Developing a dual-tool smearing the IP of Muon for the xAOD

- In Athena, Only I setup Athena with versions beyond 2.2.* can the tool retrieve that important variable *numberOfInnermostPixelLayerHits*.
- Can retrieve any variables with versions beyond 2.0.15.

Developing a dual-tool smearing the IP of Muon for the xAOD

- There is an header file(LinkDef.h) what Root uses to bulid the dictionaries when running the tool in root. I deleted it because the tool didn't have another class except IDSmearingTool.

Validation task

- **Task1(one job is broken, the other are submitting)**

Ref1(20.1.0.4),Test1(20.1.0.4),Ref2(20.1.0.4),Test2(20.1.0.4)

Ref1: s2127_r6113_p1844 (19.2.1.6, 20.1.0.4, 20.1.0.4)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2127_r6113_tid04860304_00
task1_ref1

Test1: s2143_r6167_p1844 (19.2.3.2, 20.1.0.7, 20.1.0.4)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2143_r6167_tid05038243_00
Task1_test1

Ref2: s2579_r6113_p1844 (19.2.1.6, 20.1.0.4, 20.1.0.4)

valid3.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2579_r6113_tid05109070_00
_sub0213244915
Task1_ref2

Test2: s2578_r6167_p1844 (19.2.3.2, 20.1.0.7, 20.1.0.4)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2578_r6167_tid05051674_00
Task1_test2

Validation task

- **Task2(They are all broken)**

Ref1(19.1.1.5),ref2(20.1.0.3),test(20.1.3.2)

Ref1: s1982_s1964_r5787 (17.7.3.9.6 MCProd, 17.6.51.4, 19.1.1.5)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s1982_s1964_r5787_tid01611943_00_sub0193959494

Ref2: s1982_s1964_r6156 (17.7.3.9.6 MCProd, 17.6.51.4, 20.1.0.3)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s1982_s1964_r5787_tid01611943_00_sub0193959494

Test: s1982_s1964_r6179 (17.7.3.9.6 MCProd, 17.6.51.4, 20.1.3.2)

valid2.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s1982_s1964_r6179_tid05109156_00_sub0213480262

Validation task

- **Task3(are all running)**

Ref1(20.1.0.3),test1(20.1.0.4),test2(20.1.3.2)

Ref1: s2081_r6158/r6159 (19.2.1.2, 20.1.0.3 with/without trigger)

valid3.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2081_r6158_tid051089
68_00

Test1: s2579_r6160/r6161 (19.2.1.6, 20.1.0.4 with/without trigger)

valid2.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2579_r6160_tid051089
77_00

Test2: s2579_r6162/r6164 (19.2.1.6, 20.1.3.2 with/without trigger)

valid1.110401.PowhegPythia_P2012_ttbar_nonallhad.recon.ESD.e3099_s2579_r6162_tid051089
91_00
0025

bbtautau-toys-asymptotic

Toys-500

- expected limit (+2 sig)
1.17208
- expected limit (+1 sig)
0.806363
- expected limit (median)
0.542716
- expected limit (-1 sig)
0.395518
- expected limit (-2 sig)
0.303293

Asymptotic-500

- +2sigma: 1.21178
- +1sigma: 0.805131
- Median: 0.53936
- -1sigma: 0.388639
- -2sigma: 0.289488

status

- For the validation, waiting for the results coming out, then to contact with other people
- For the dual-tool, only a variable can't be retrieved –it has been solved