

Weekly report

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Working status

VBF Higgs CP:

- INT note: <https://gitlab.cern.ch/faguo/vbfhiggscpnote>. Shared with Huirun and Ahmed.
- $\gamma\gamma$ purity calculation: old package Purity2x2DSB seems be obsoleted, Purity2x2D_Ntuple has some problem in weighting.
- Next step:
Get $\gamma\gamma$ purity with new package HGamBackgroundStudies asap.
If data-MC in $m_{\gamma\gamma}$ can match after scaling in each OO bin, do spurious signal test with MC.

Working status

Qualification task: photon ID with topo cluster variables

- Asked for templates:
<https://its.cern.ch/jira/projects/ATLEGAMDPD/issues/ATLEGAMDPD-141?filter=allopenissues>
- Data is almost finished, but MC jobs are always “ready”.
- Lack of link between photon and corresponding topo-cluster. Need to fix the code.

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|--------------------------------------|--|--|
| 0 | + mc16_13TeV:mc16_13TeV.366145.Sh_224_NN30NNLO_mumugamma_LO_pty_7_15.merge.AOD.e7006_e5984_s3126_r10724_r10726 | datasets |
| Slice outputs: DAOD_EGAM4 | | |
| T: | p4252 | submitted edit (saved) |
| Produced events: None | | |
| 3 | + data18_13TeV.periodE.physics_Main.PhysCont.AOD.t0pro22_v01 | datasets |
| Slice outputs: DAOD_EGAM3.DAOD_EGAM4 | | |
| T: | p4251 | submitted edit (saved) |
| Produced events: 56927 | | |
| T: | done | |
| T: | done | |
| T: | done | |