

# Weekly report

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# Working status

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## 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.

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			
	p4252		submitted <a href="#">edit (saved)</a>
T:	ready		Produced events: None
3	+	data18_13TeV.periodE.physics_Main.PhysCont.AOD.t0pro22_v01	datasets
Slice outputs: DAOD_EGAM3.DAOD_EGAM4			
	p4251		submitted <a href="#">edit (saved)</a>
	done		
T:	done		Produced events: 56927
	done		