

2018 Activity with CMS

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ROC (Remote Operations Center) shifts and support.

Goal of this operation is the data quality certification of CMS collected runs with CMS-HCAL subdetector.

Topics:

1. ROC shifts from ANSL (Yerevan CMS-Center).

July of 2018

Total 53 pp-collision runs certification

2. Support for ROC

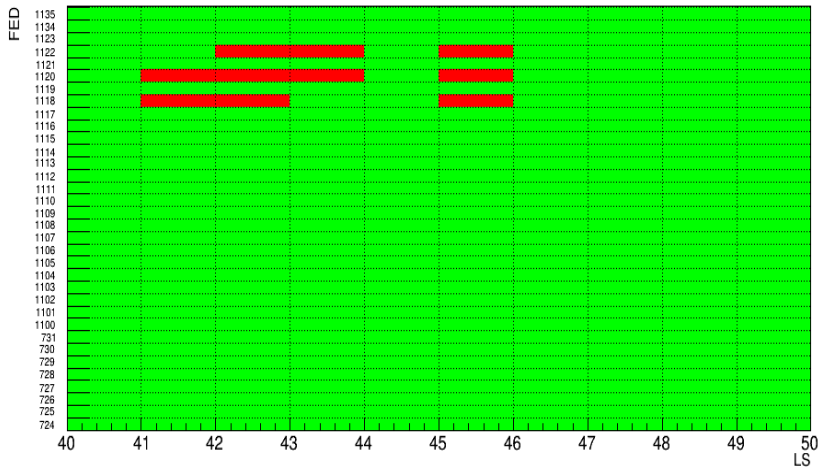
July-December

Total 2.44 EPR points (months).

ROC shifts

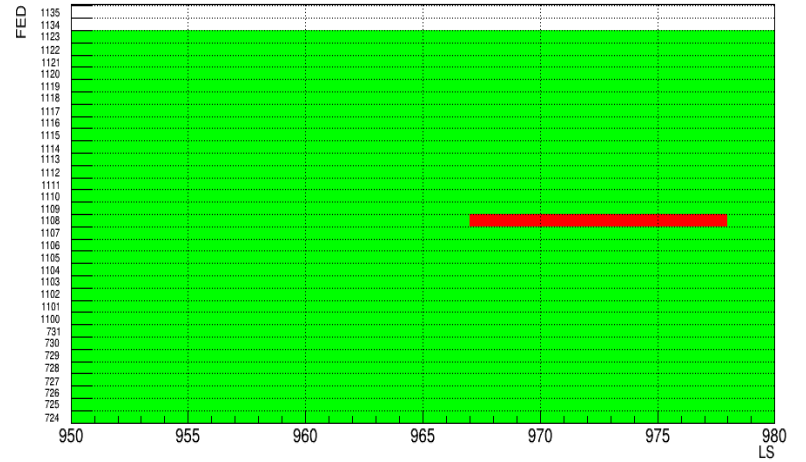
Run 310853 (FED)

SummaryvsLS



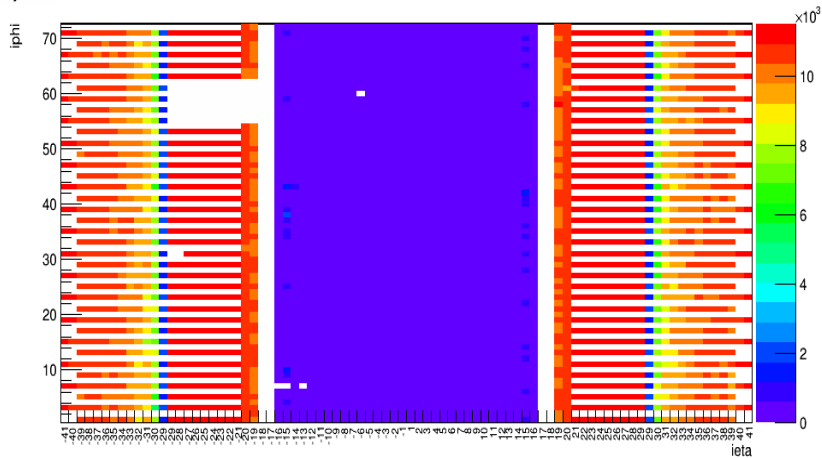
Run 310524

SummaryvsLS



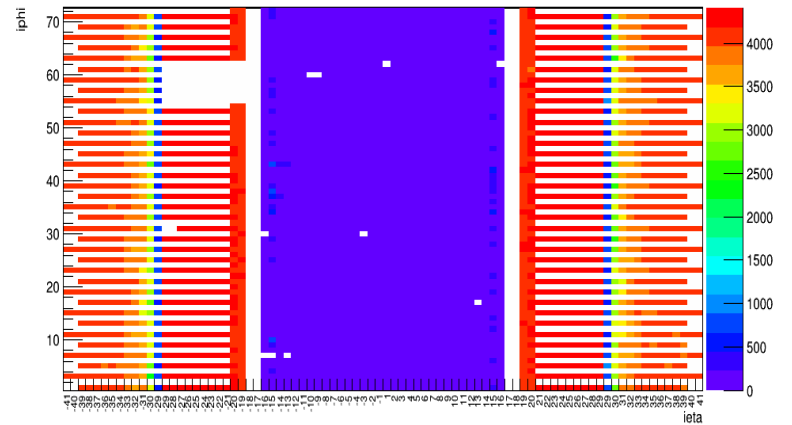
Run 310687 (channels)

depth1



Run 310847 (channels)

depth1



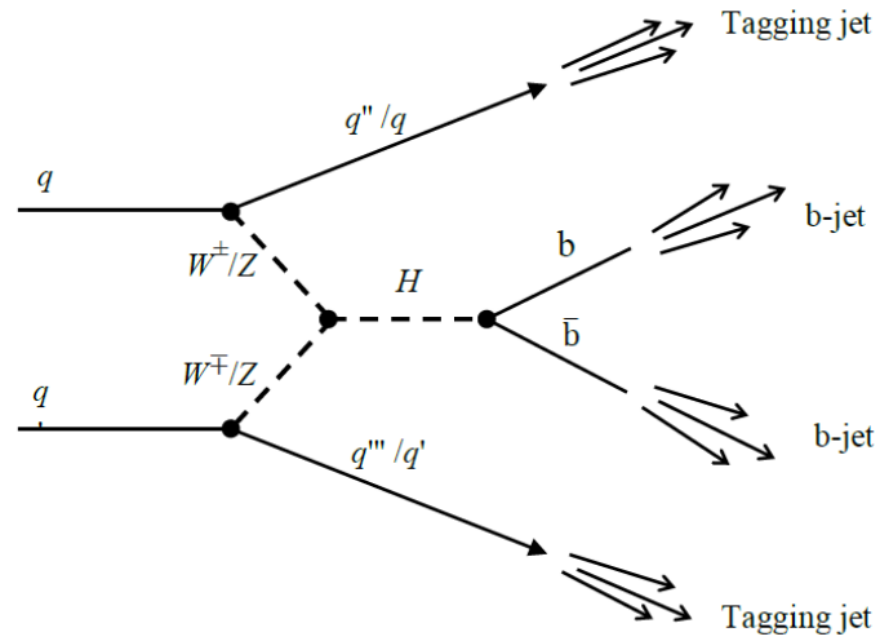
VBF H-bb Analysis with 2017/18

ANSL-CMS main analysis topic:

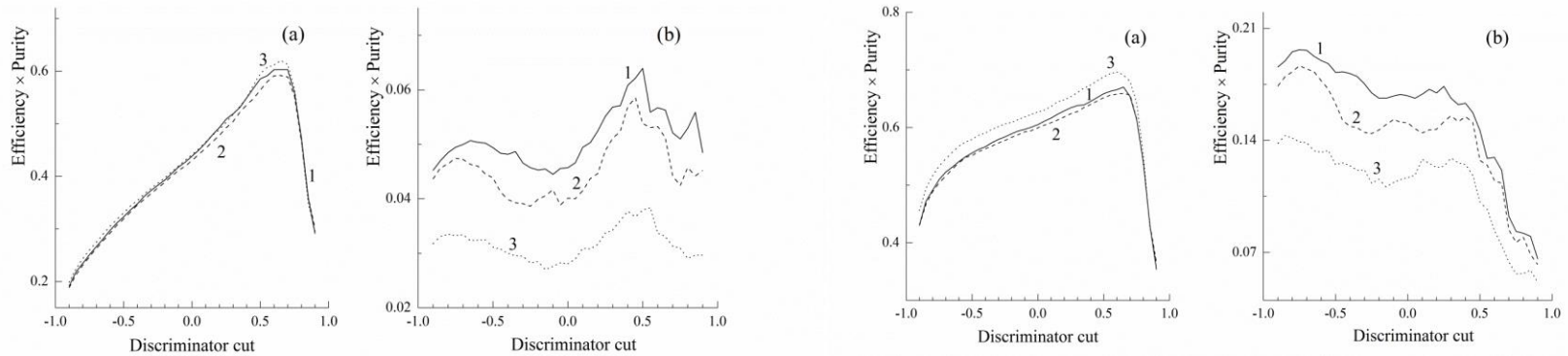
Recently started participating
This analysis.

Make contribution in analysis code
development.

Support git repository updates.



BH segmentation optimization within CMS_Phase2 upgrade



Dependence of the product of efficiency and purity of selection of labeled jets from the restriction on the "PU" discriminator for jets with $ET > 20$ GeV, $ET > 30$ GeV in different intervals of pseudorapidity: (a) 1.5-2.6, (b) 2.6-3. 1-segmentation $2\text{cm} \times 2\text{cm}$, 2 - segmentation $4\text{cm} \times 4\text{cm}$, 3 - segmentation $8\text{cm} \times 8\text{cm}$.

BH segmentation optimization within CMS_Phase2 upgrade

	ET>20Gev			ET>30Gev		
η -interval	2sm X 2sm	4sm X 4sm	8sm X 8sm	2sm X 2sm	4sm X 4sm	8sm X 8sm
1.5-2.6	60.3	59.2	62.0	66.9	66.1	69.8
2.6-3.0	6.4	5.9	3.9	19.6	18.8	14.2
1.5-3.0	25.3	23.9	24.8	32.7	31.7	31.4

The product of the efficiency and purity of labeled selection jets in different transverse segmentation BH.
 $\text{Efficiency} \times \text{Purity} \times 100$

THANKS