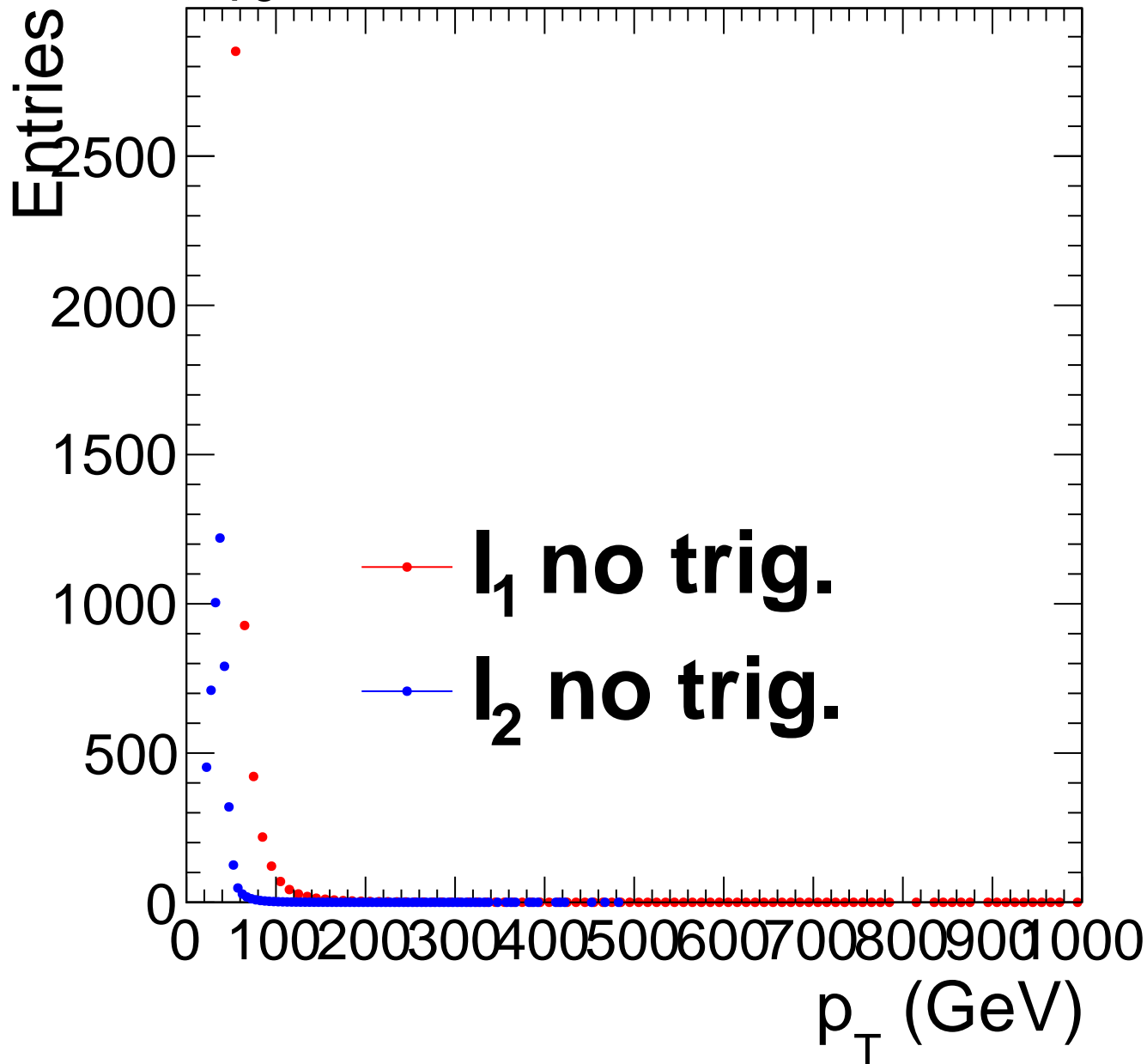


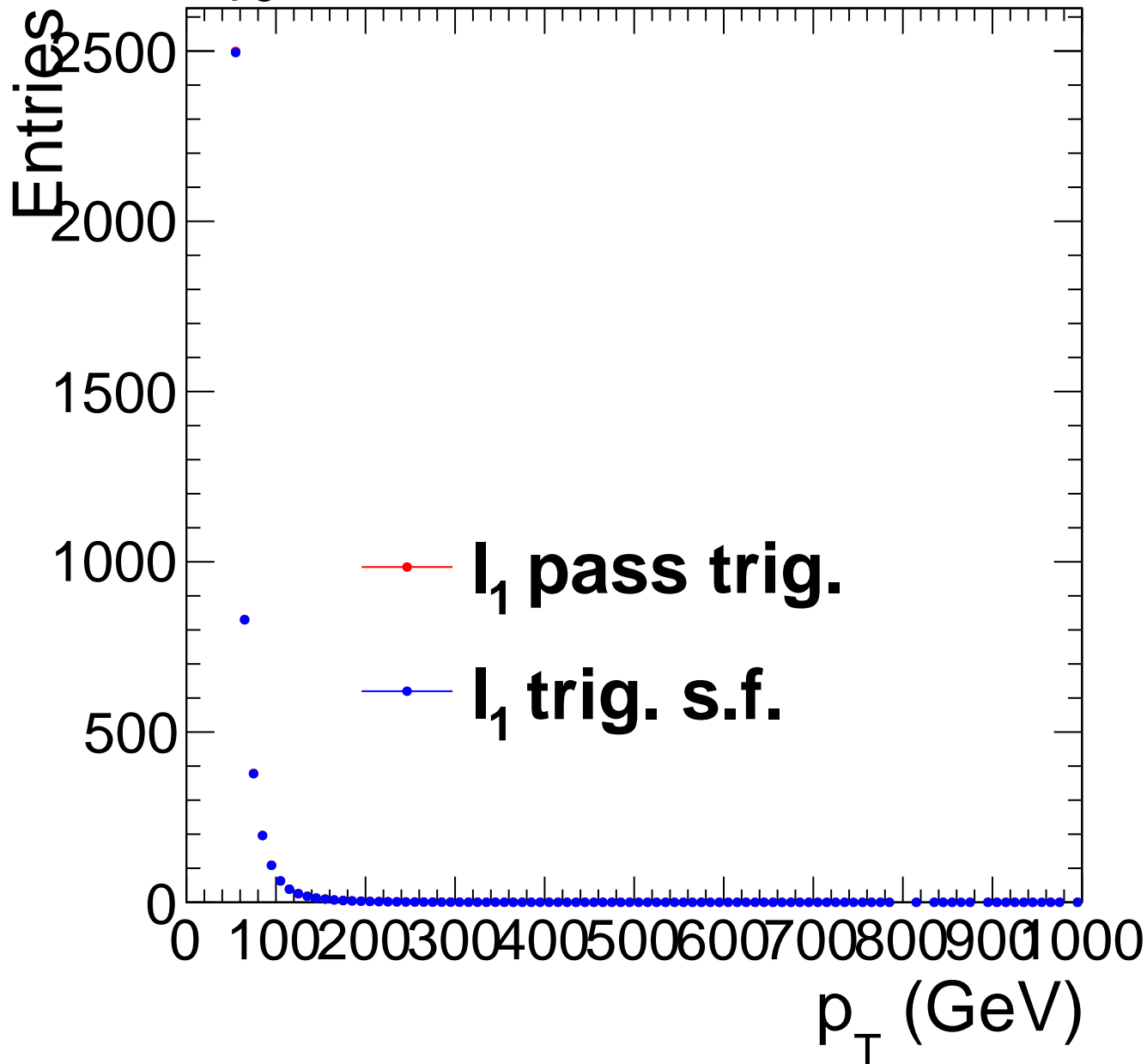
htrg\_l1\_pt\_base

$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



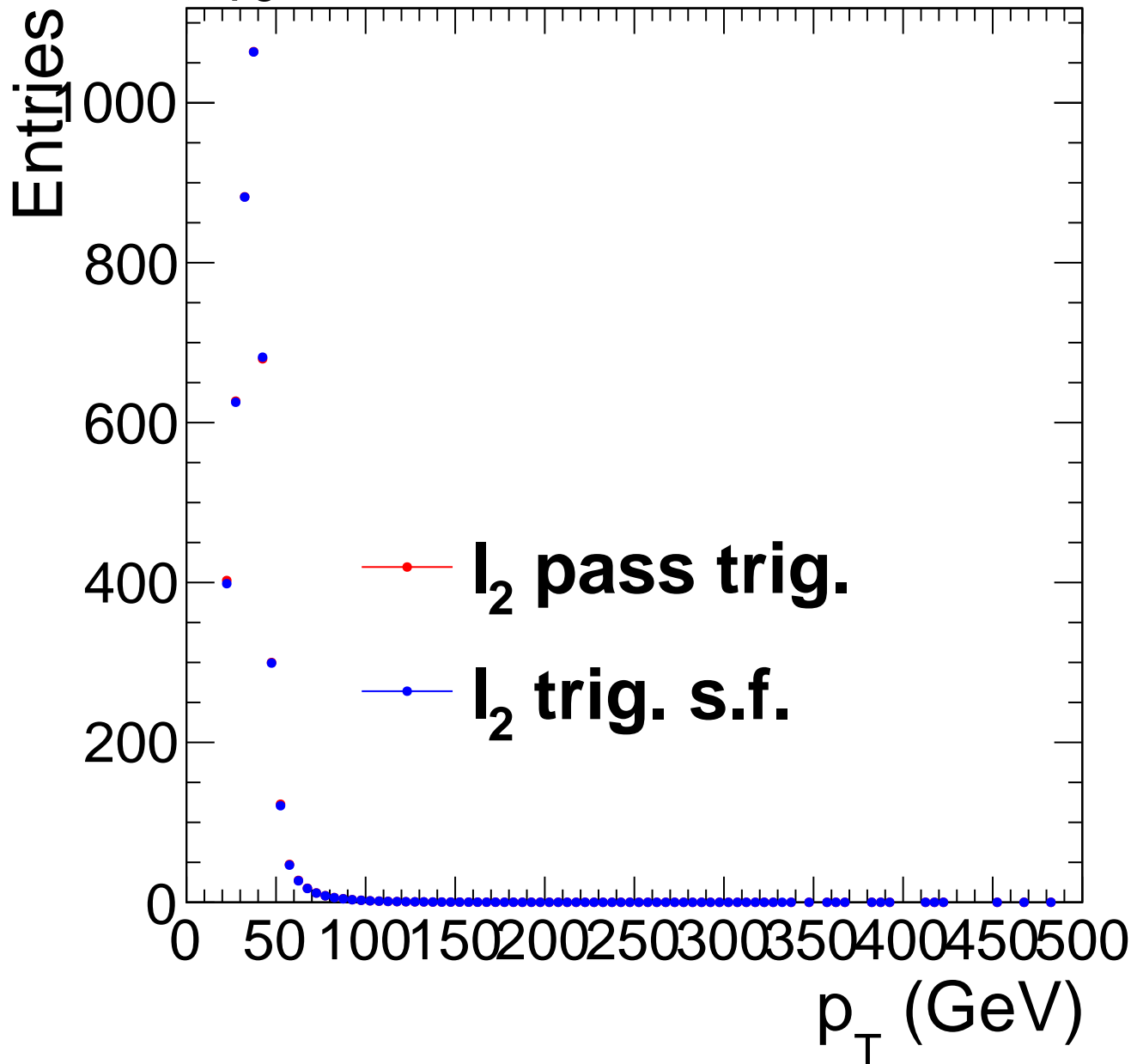
**htrg\_l1\_pt\_pass**

$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



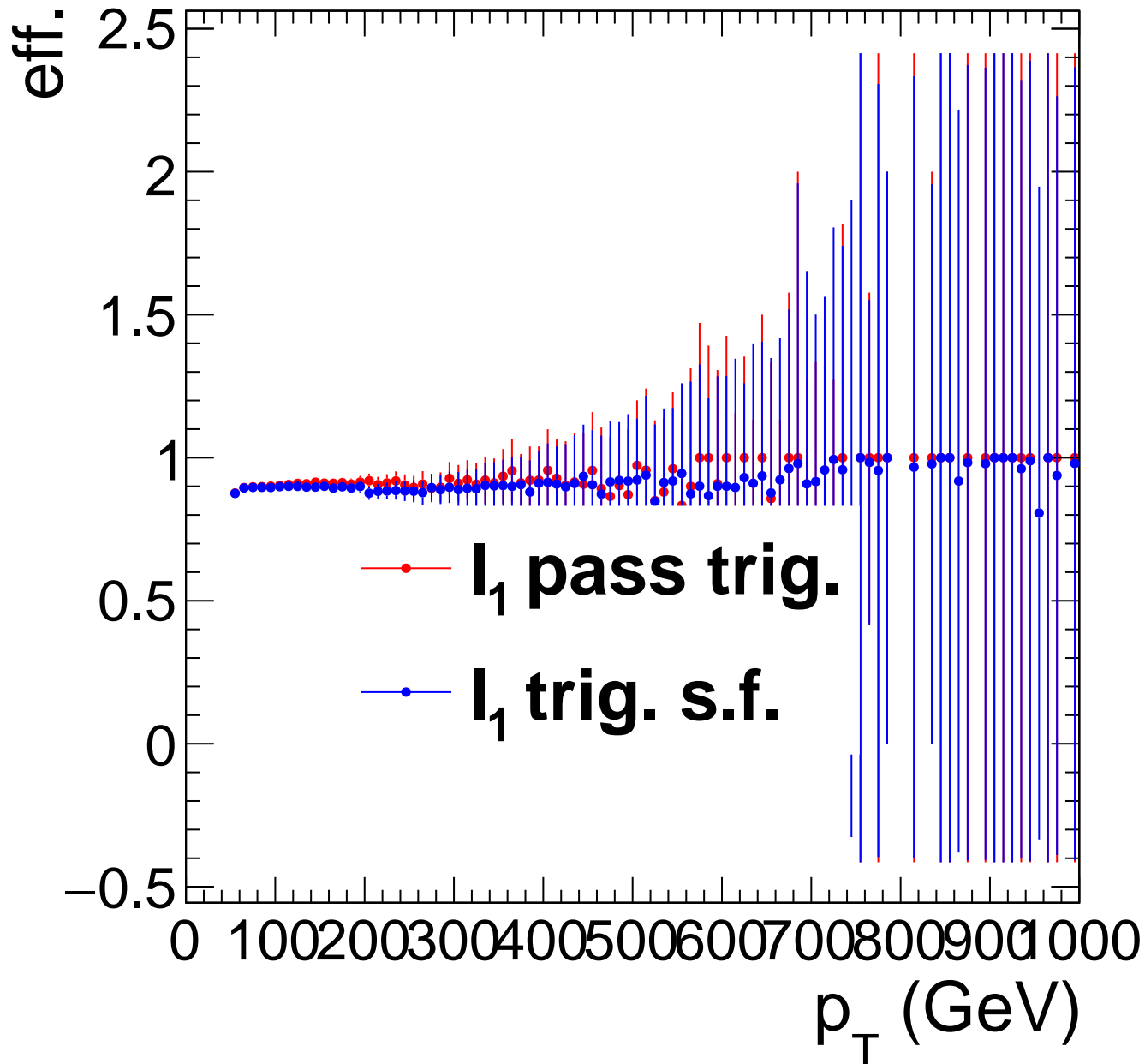
**htrg\_l2\_pt\_pass**

$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



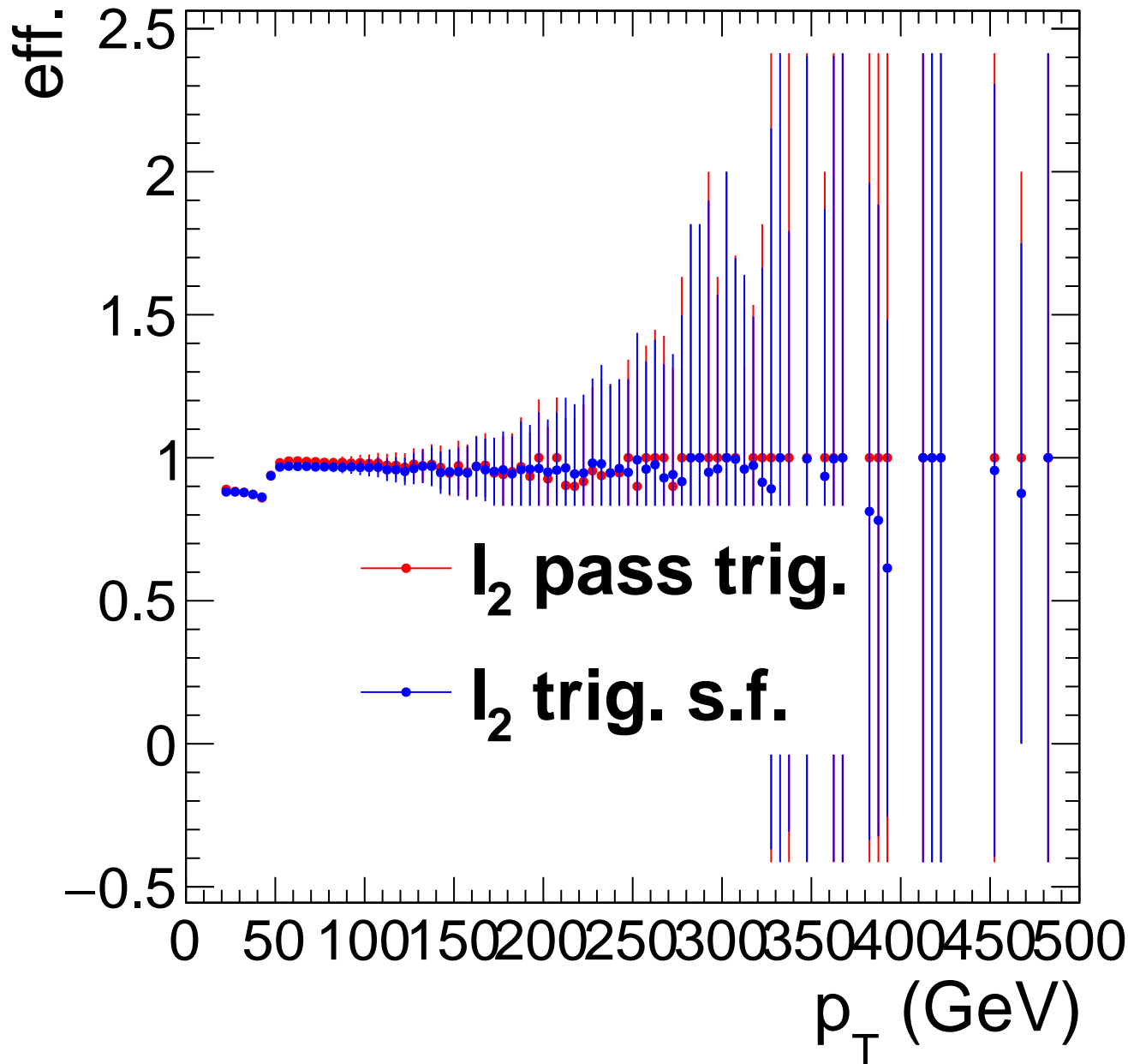
# htrg\_eff\_l1\_pt\_trig

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



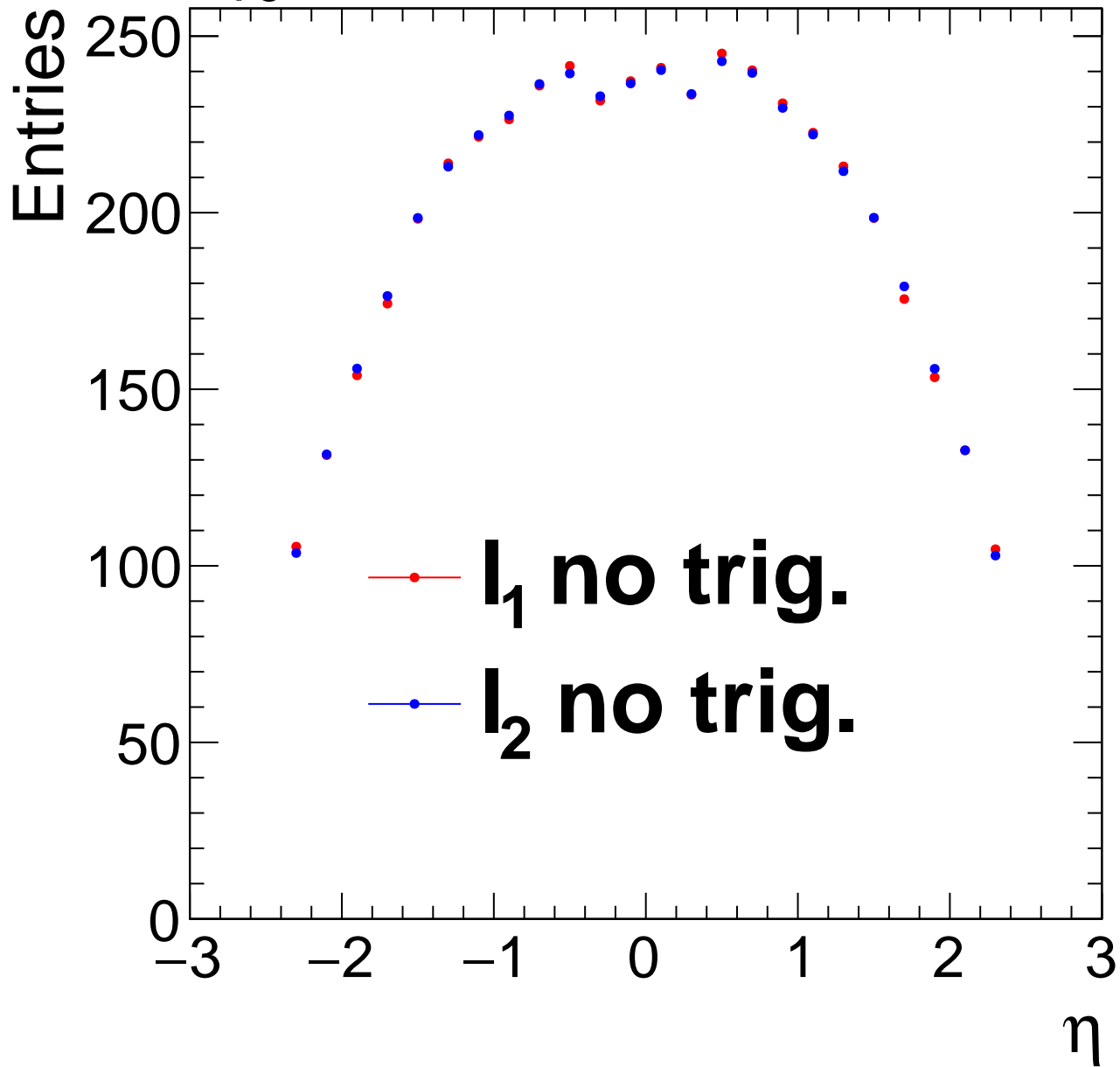
# htrg\_eff\_l2\_pt\_trig

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



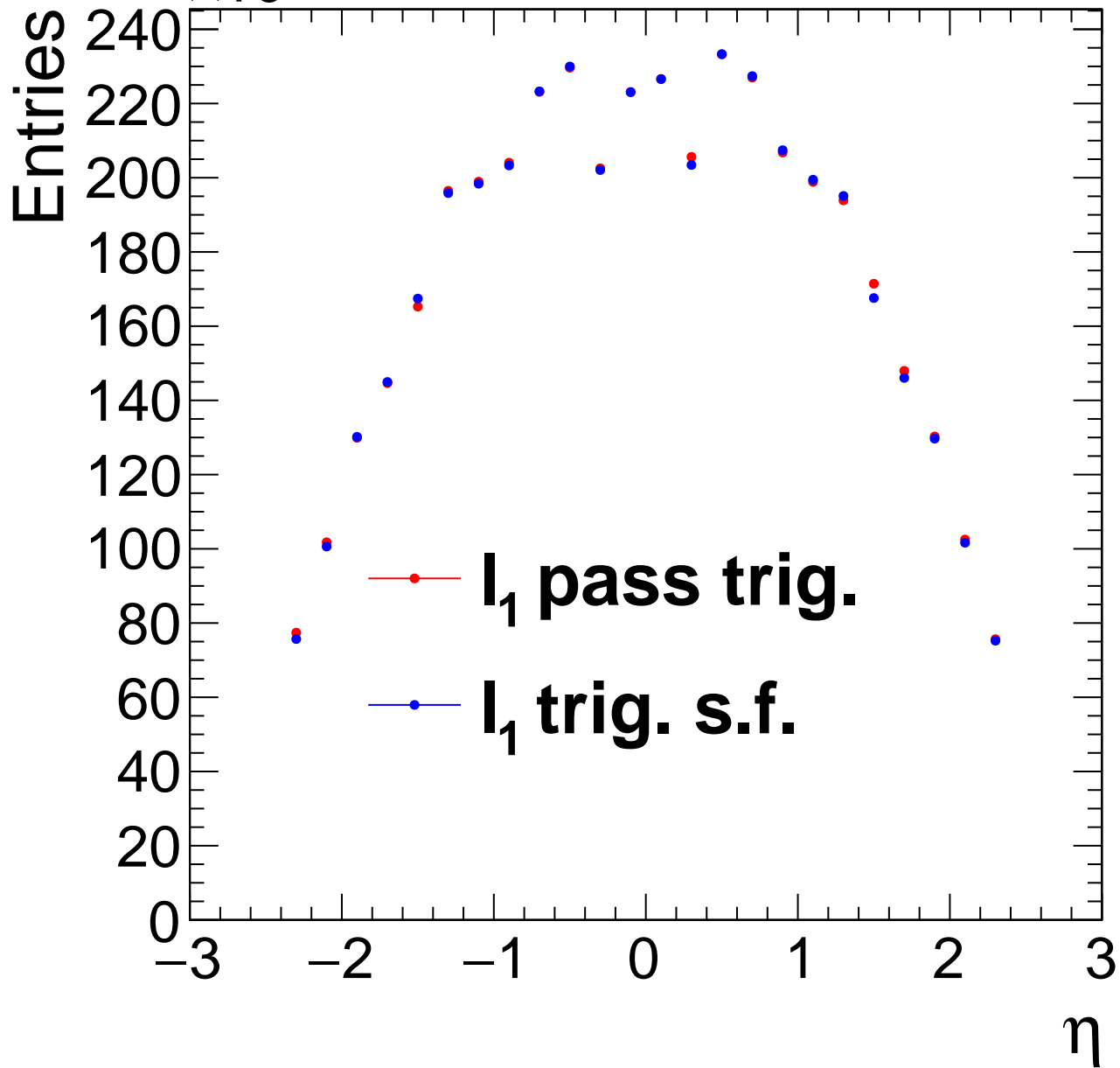
# htrg\_l1\_eta\_base

$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



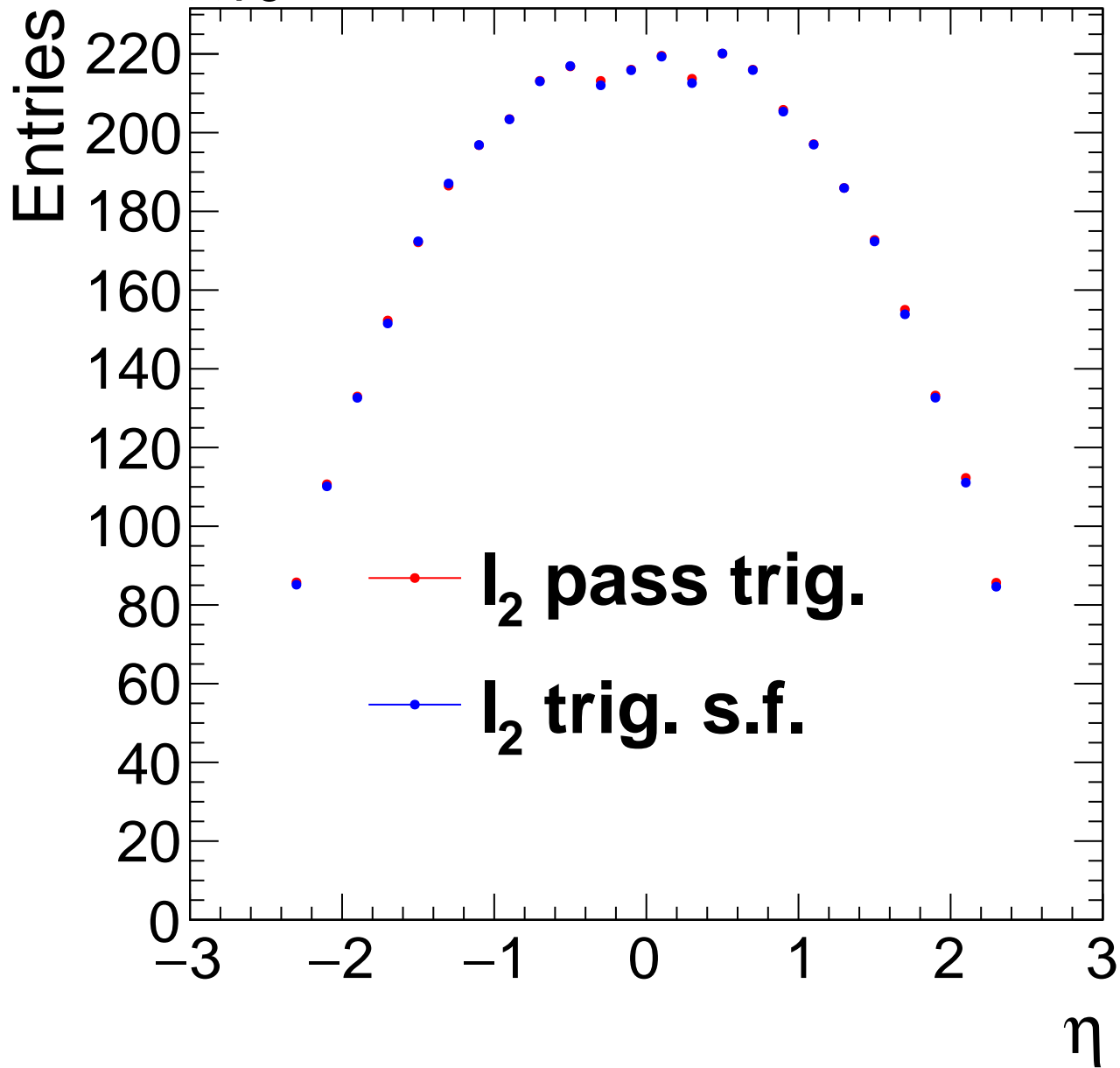
# htrg\_l1\_eta\_pass

$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_l2\_eta\_pass

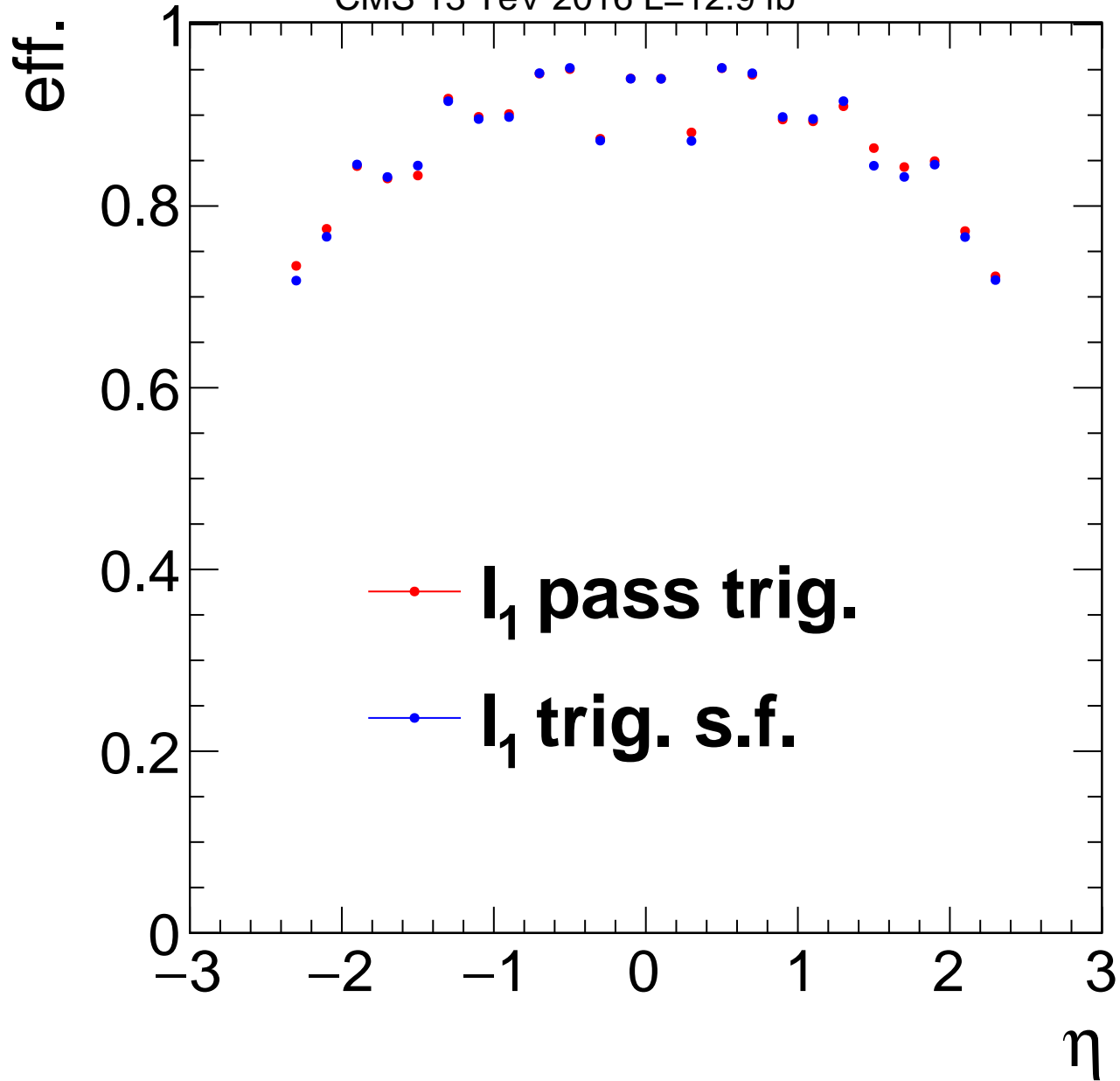
$\times 10^5$  CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





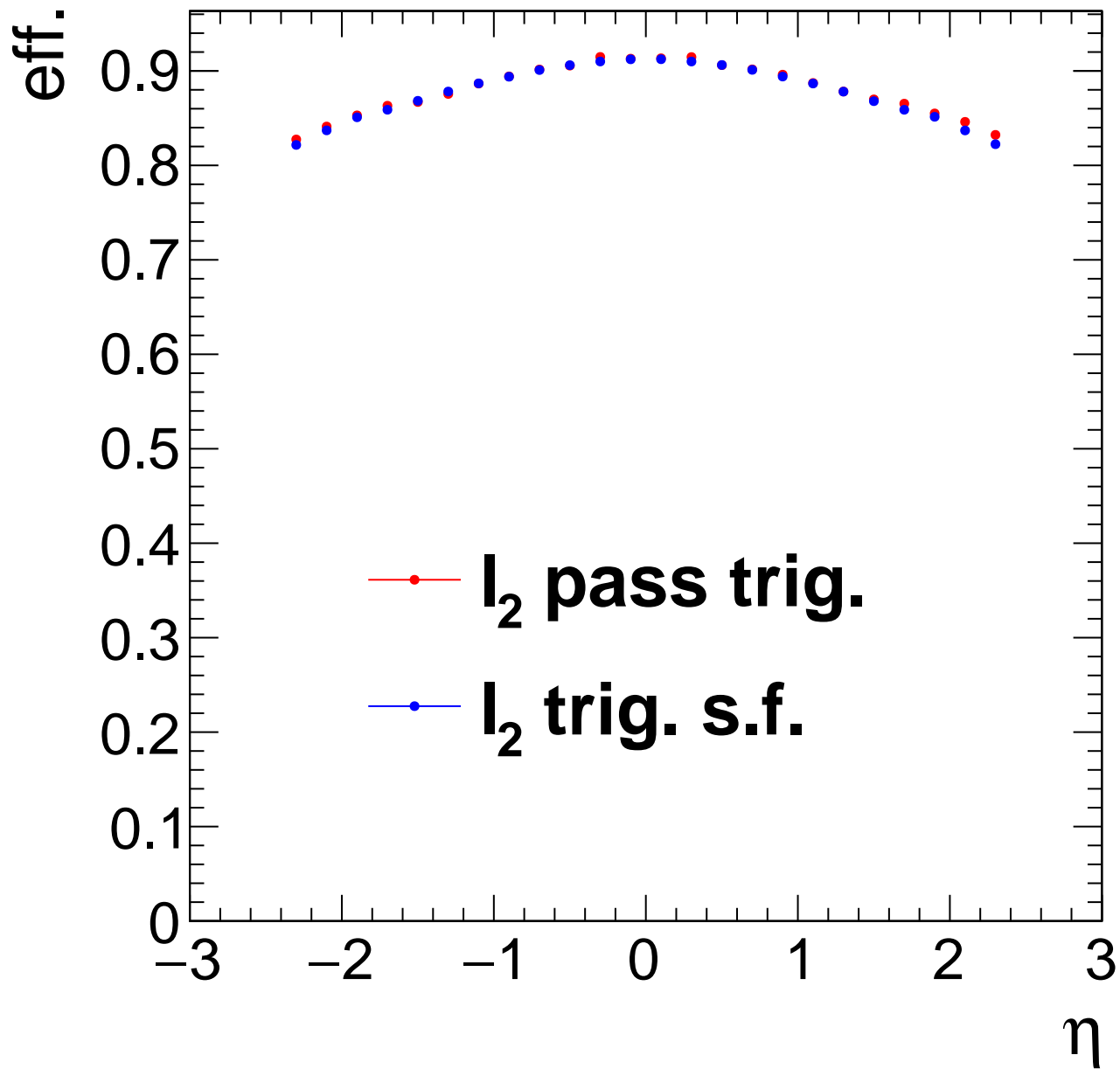
# htrg\_eff\_l1\_eta\_trig

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



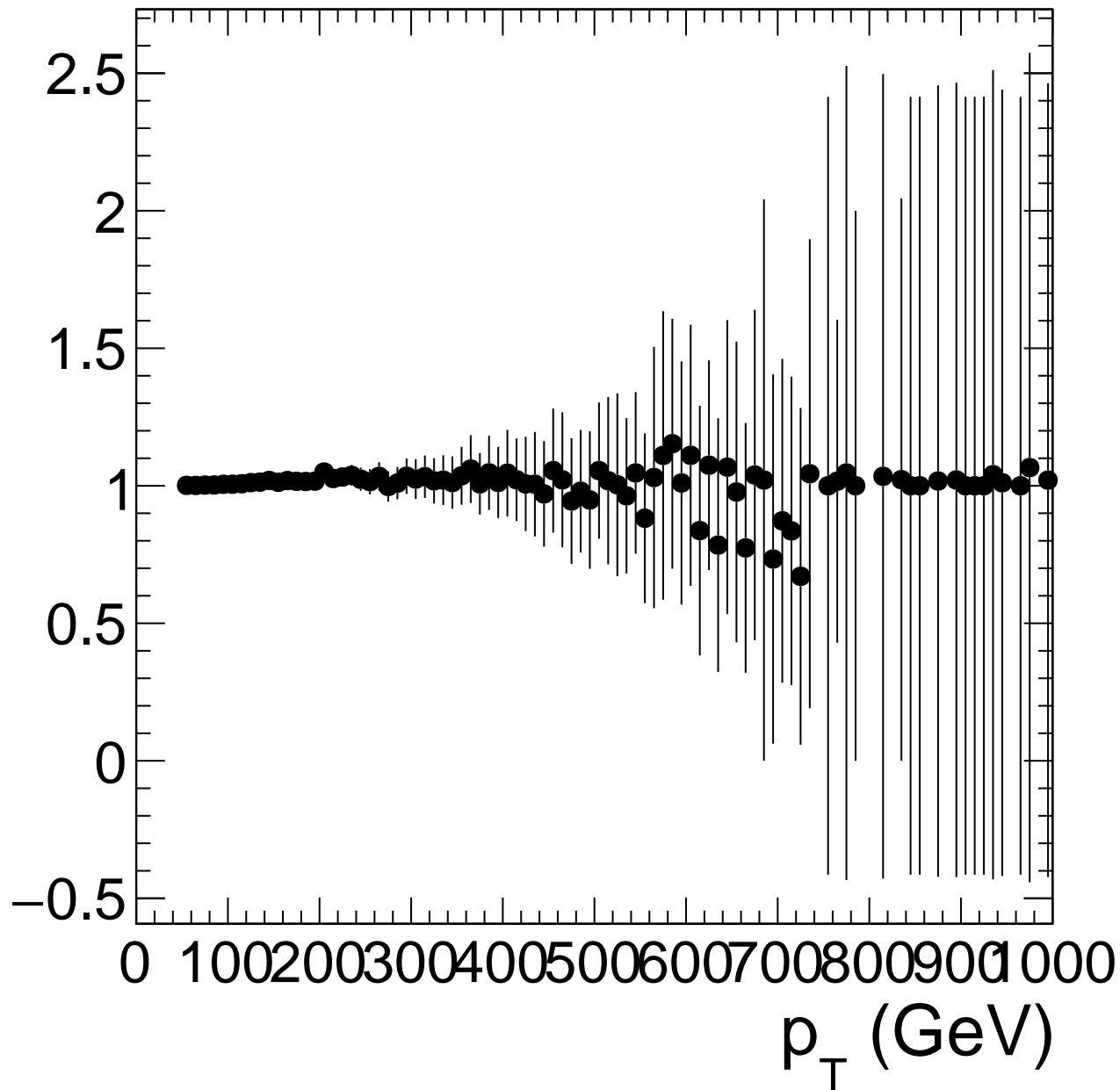
# htrg\_eff\_l2\_eta\_trig

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



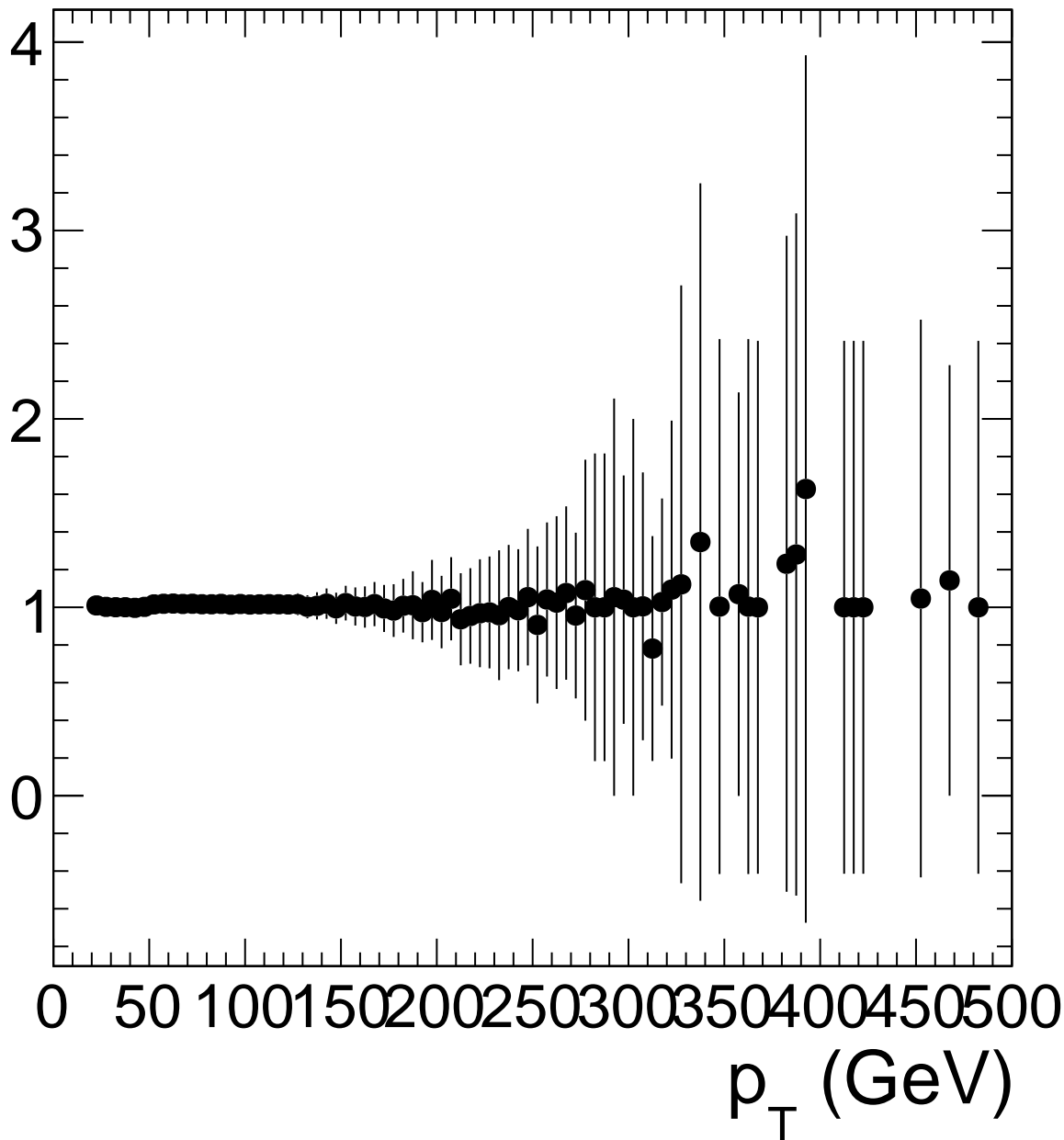
# htrg\_l1\_pt\_pass\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



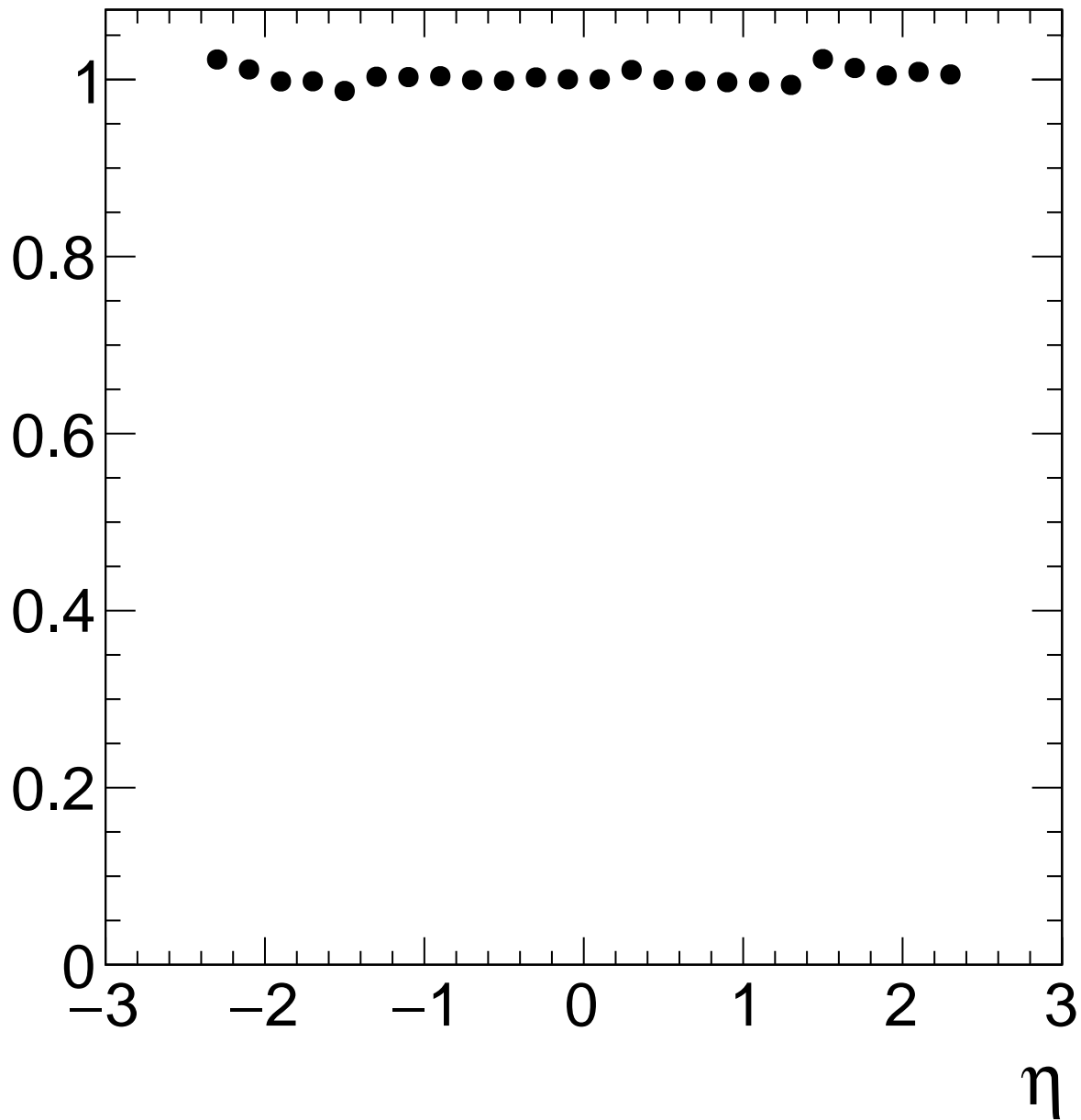
# htrg\_l2\_pt\_pass\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



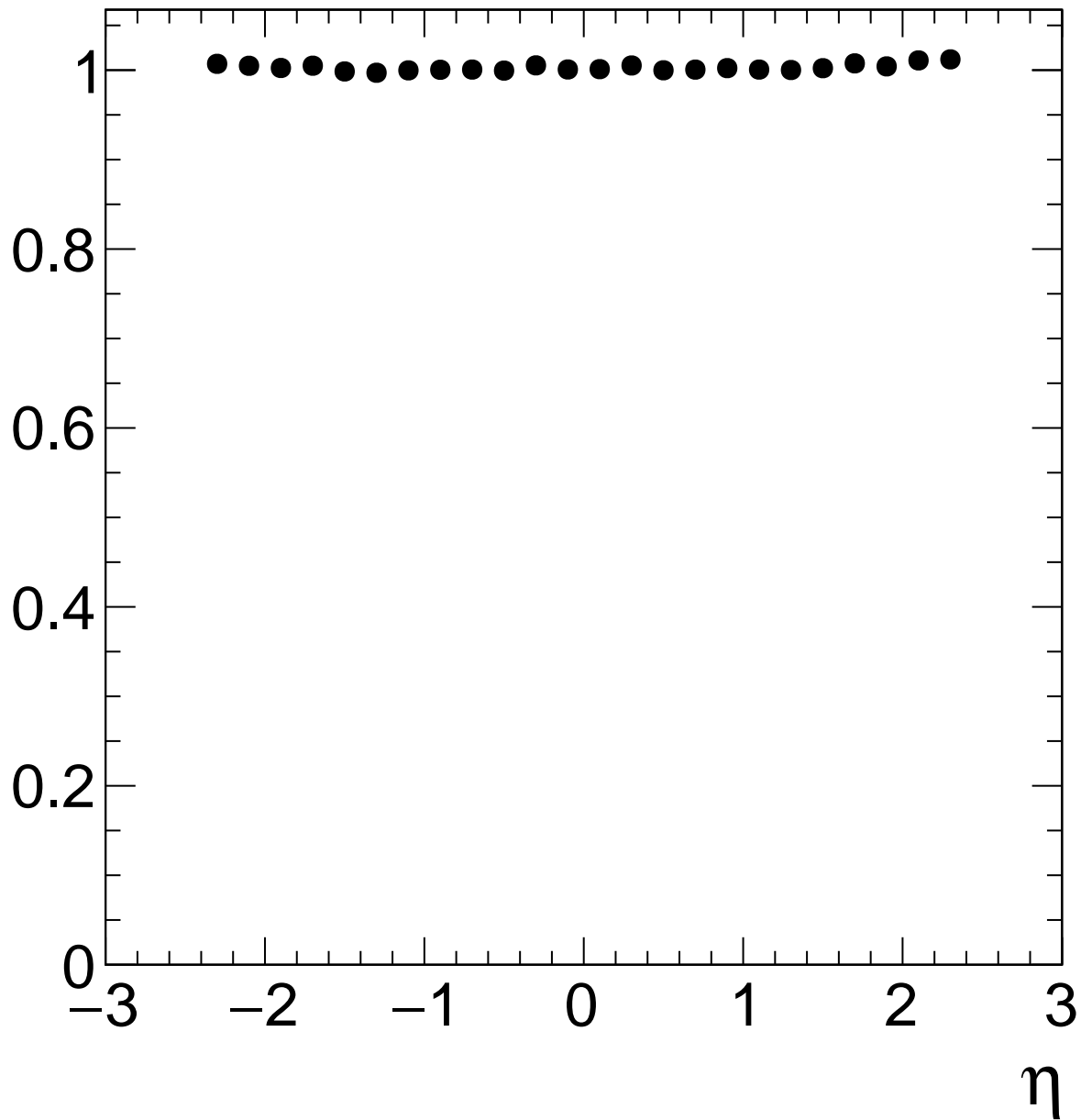
# htrg\_l1\_eta\_pass\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



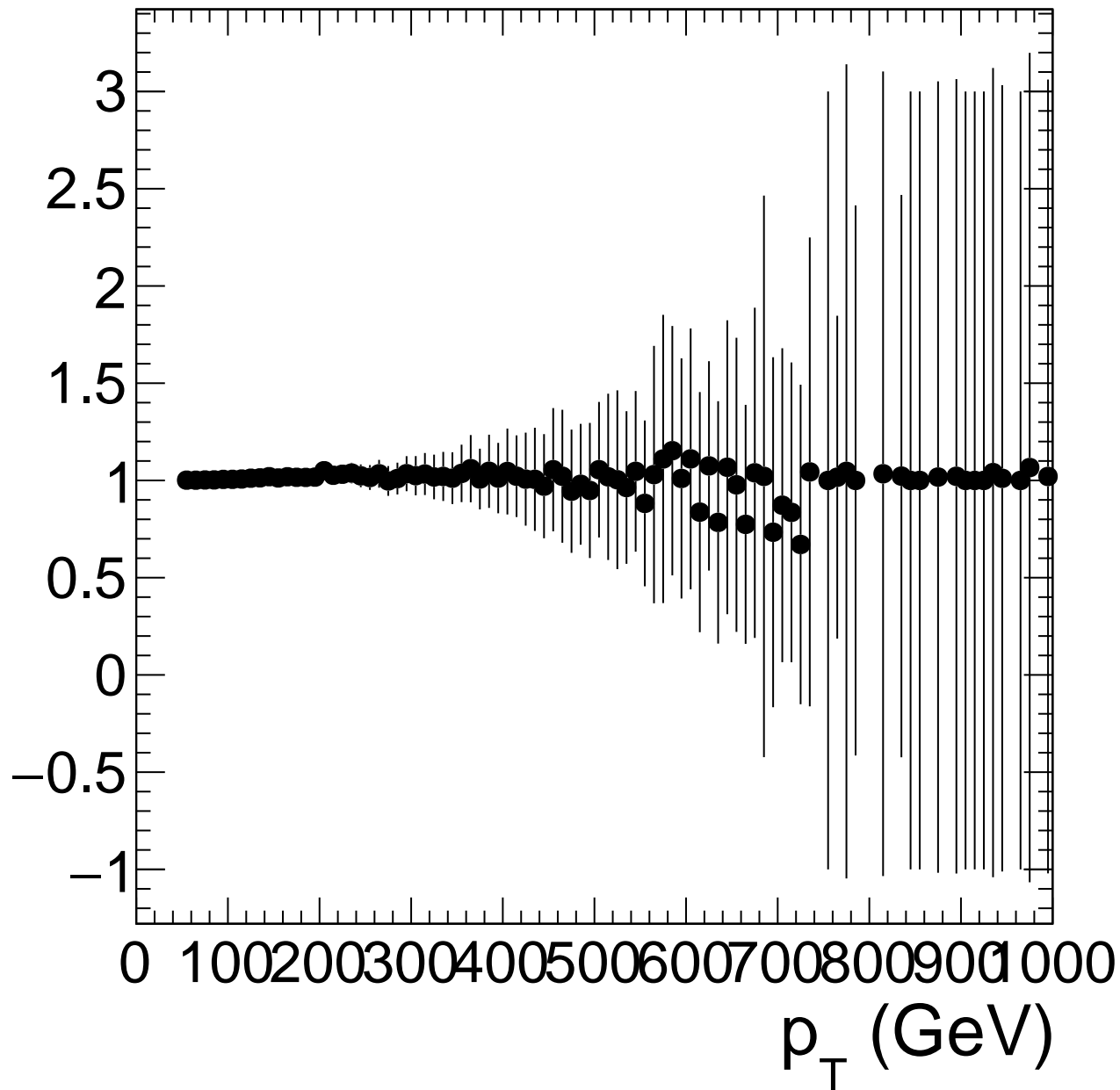
# htrg\_l2\_eta\_pass\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



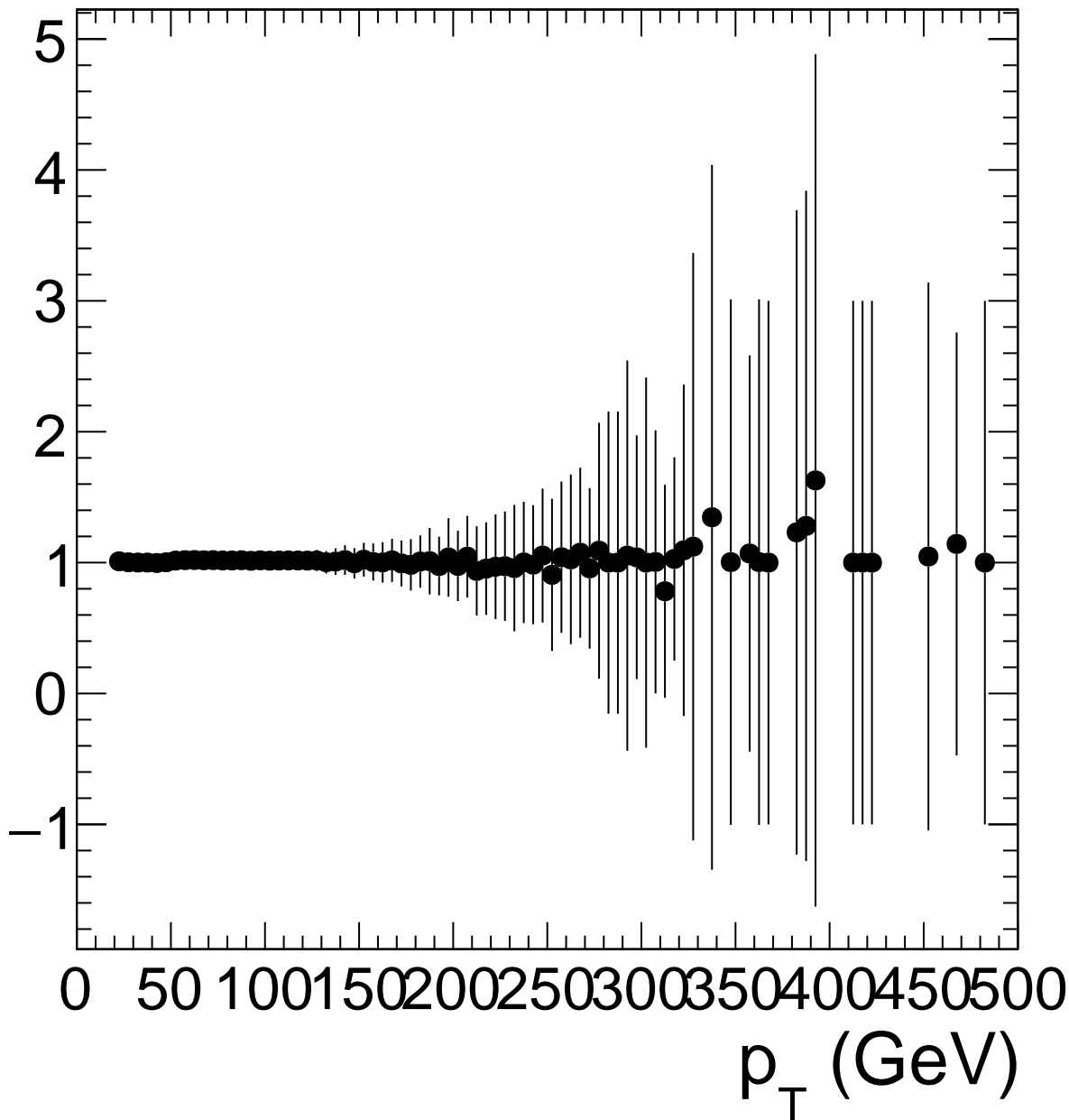
# htrg\_eff\_l1\_pt\_trig\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_eff\_l2\_pt\_trig\_vs\_tgsf

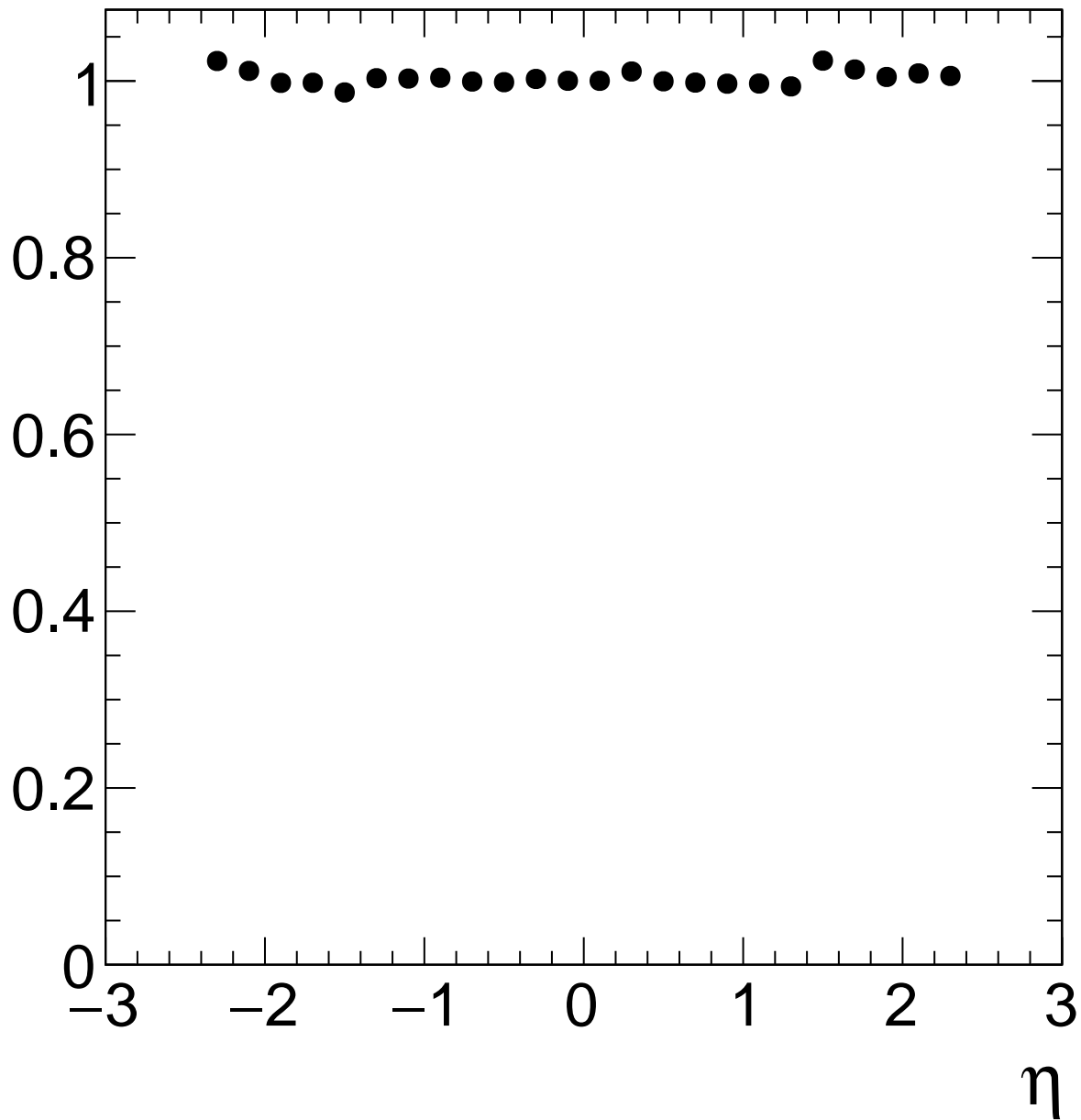
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





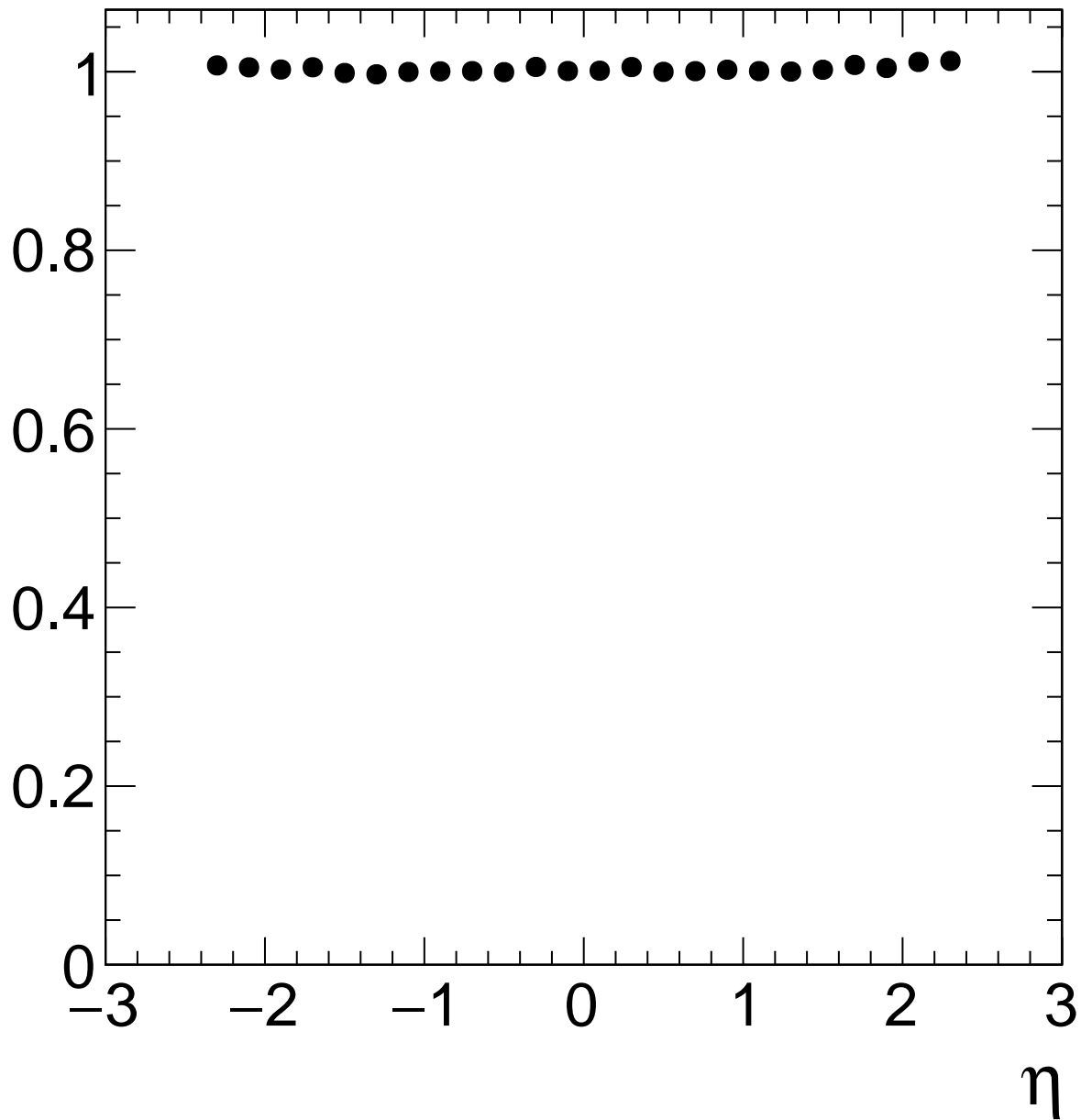
# htrg\_eff\_l1\_eta\_trig\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



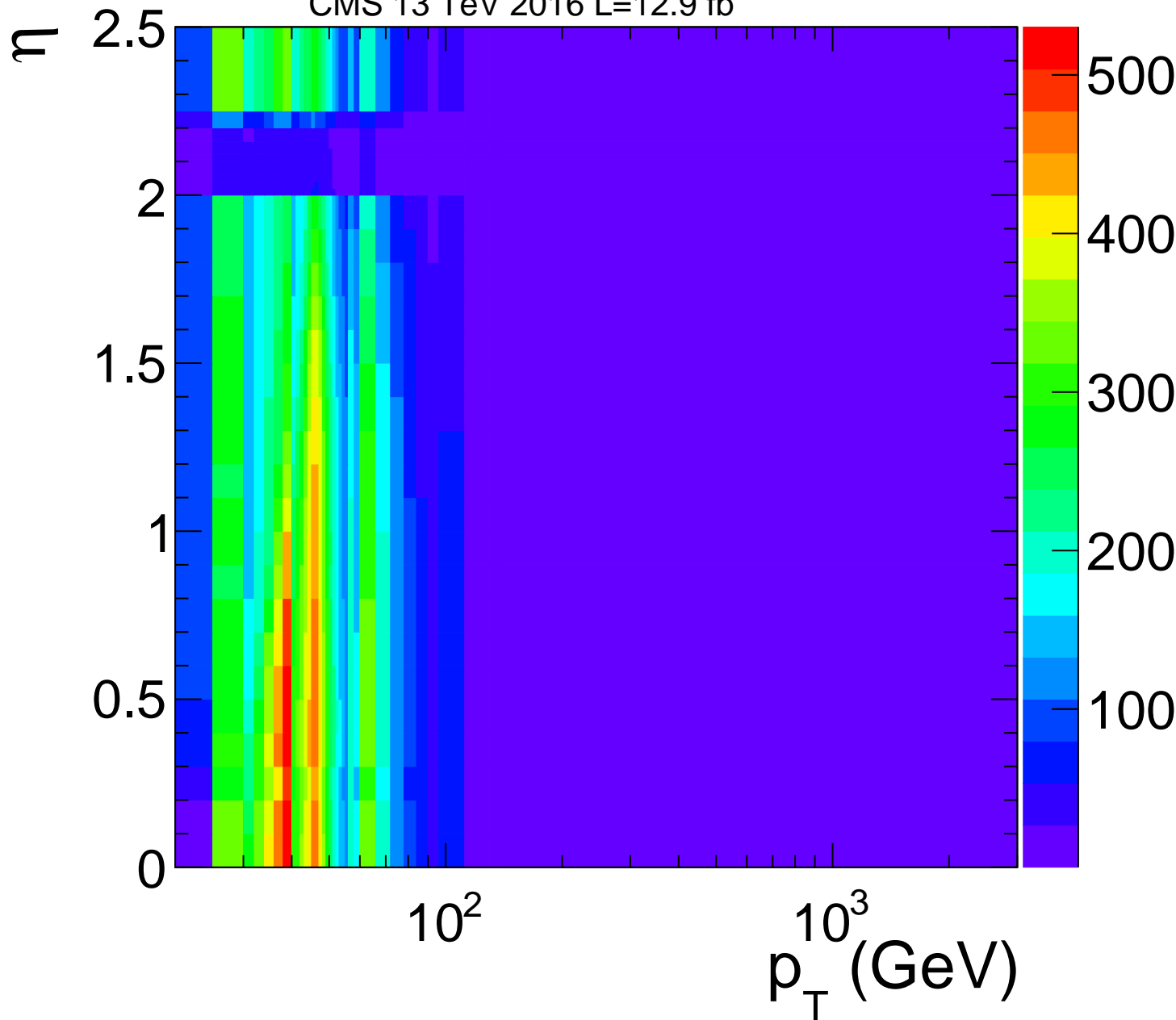
# htrg\_eff\_l2\_eta\_trig\_vs\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



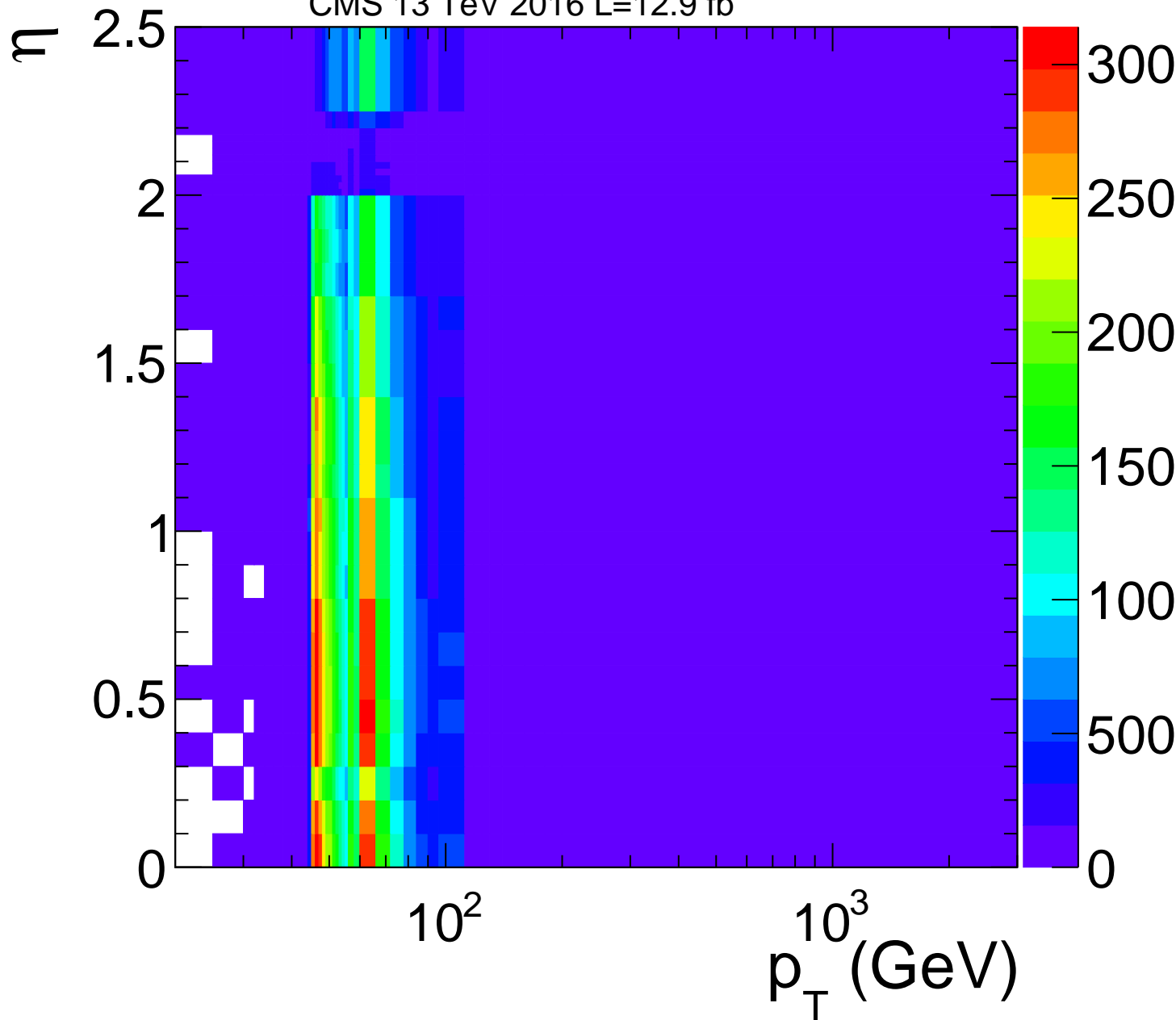
# htrg\_l1\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



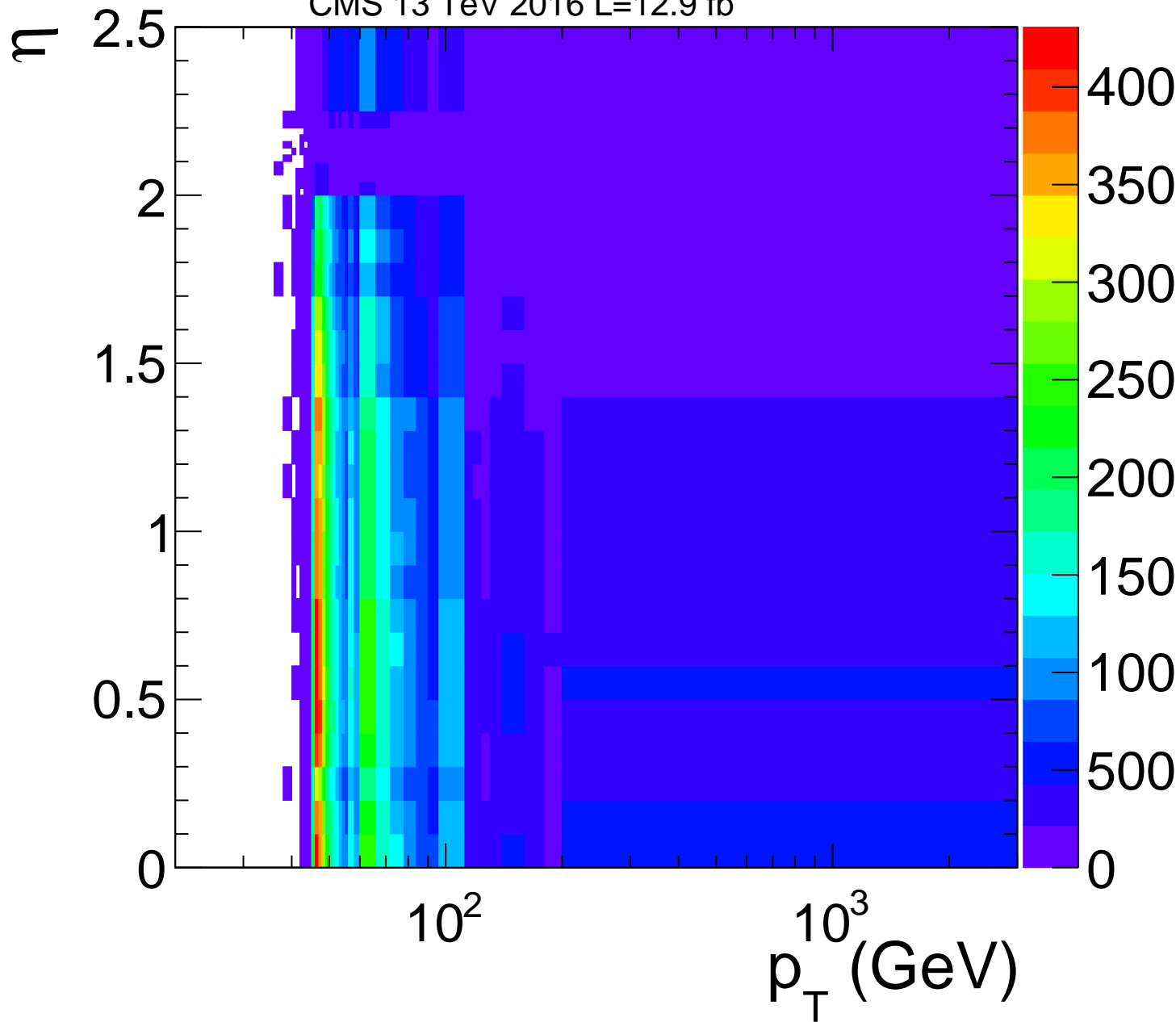
htrg\_l1\_l1pl2f

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



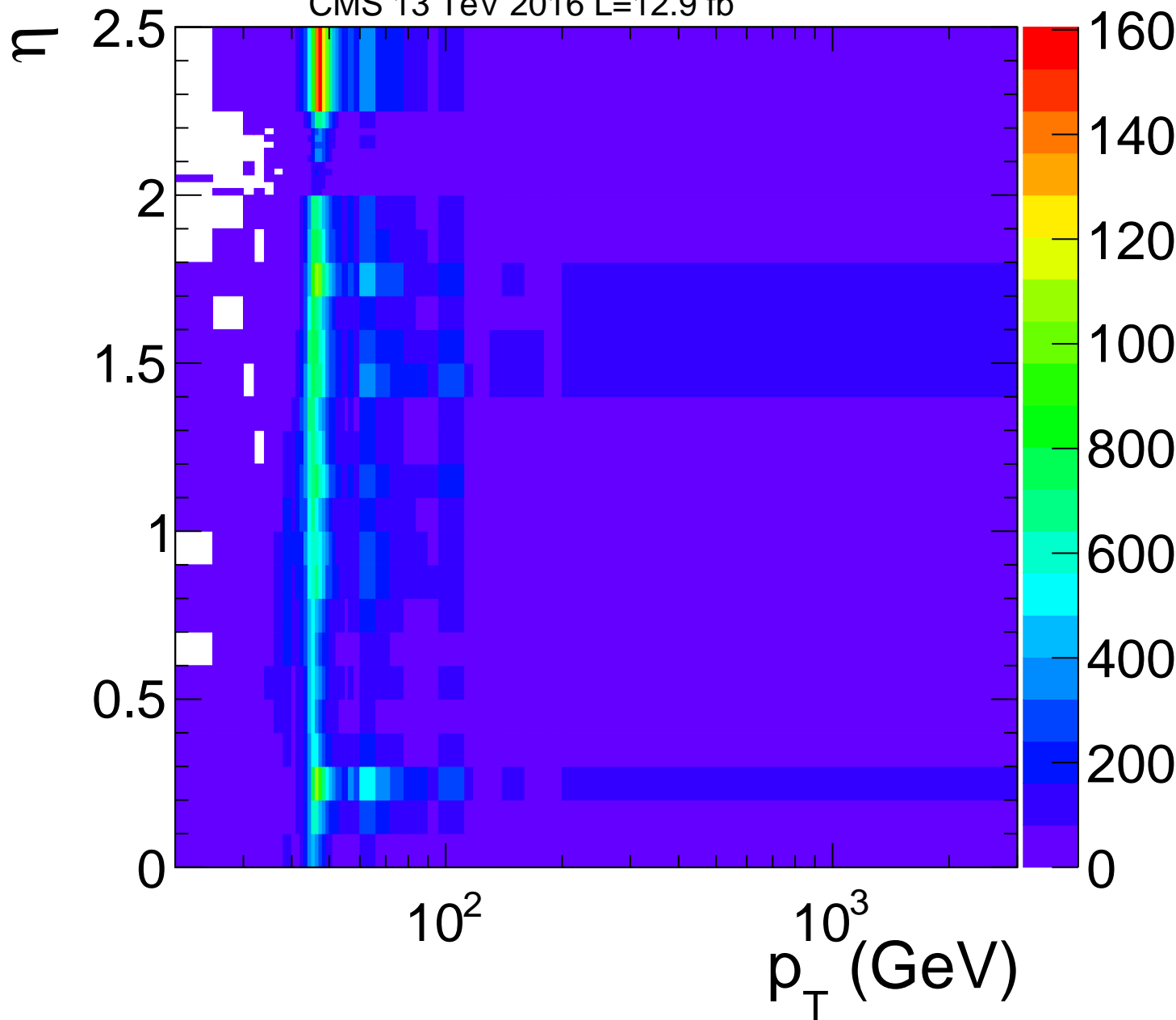
htrg\_l1\_l1pl2p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



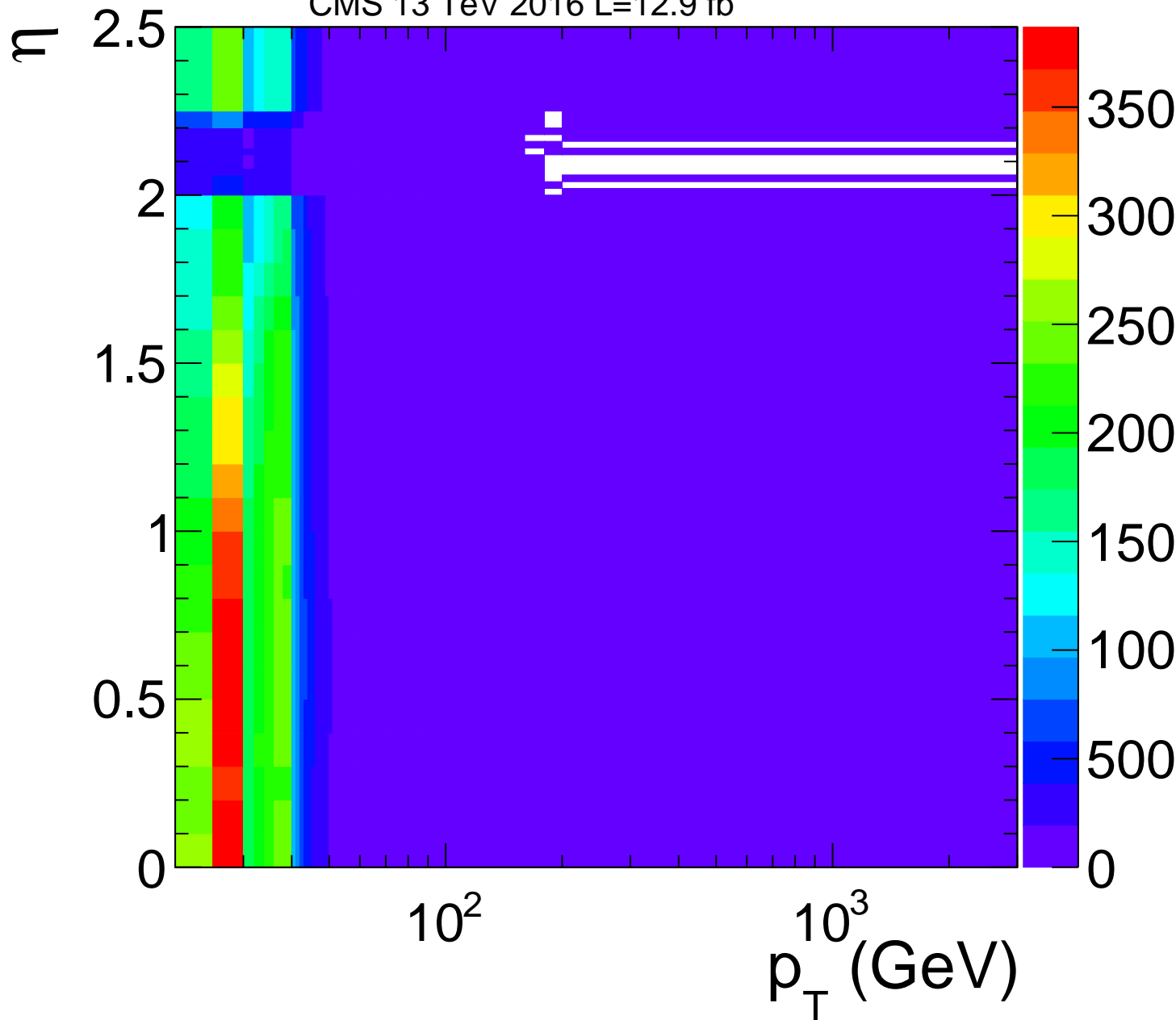
htrg\_l1\_l1fl2p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



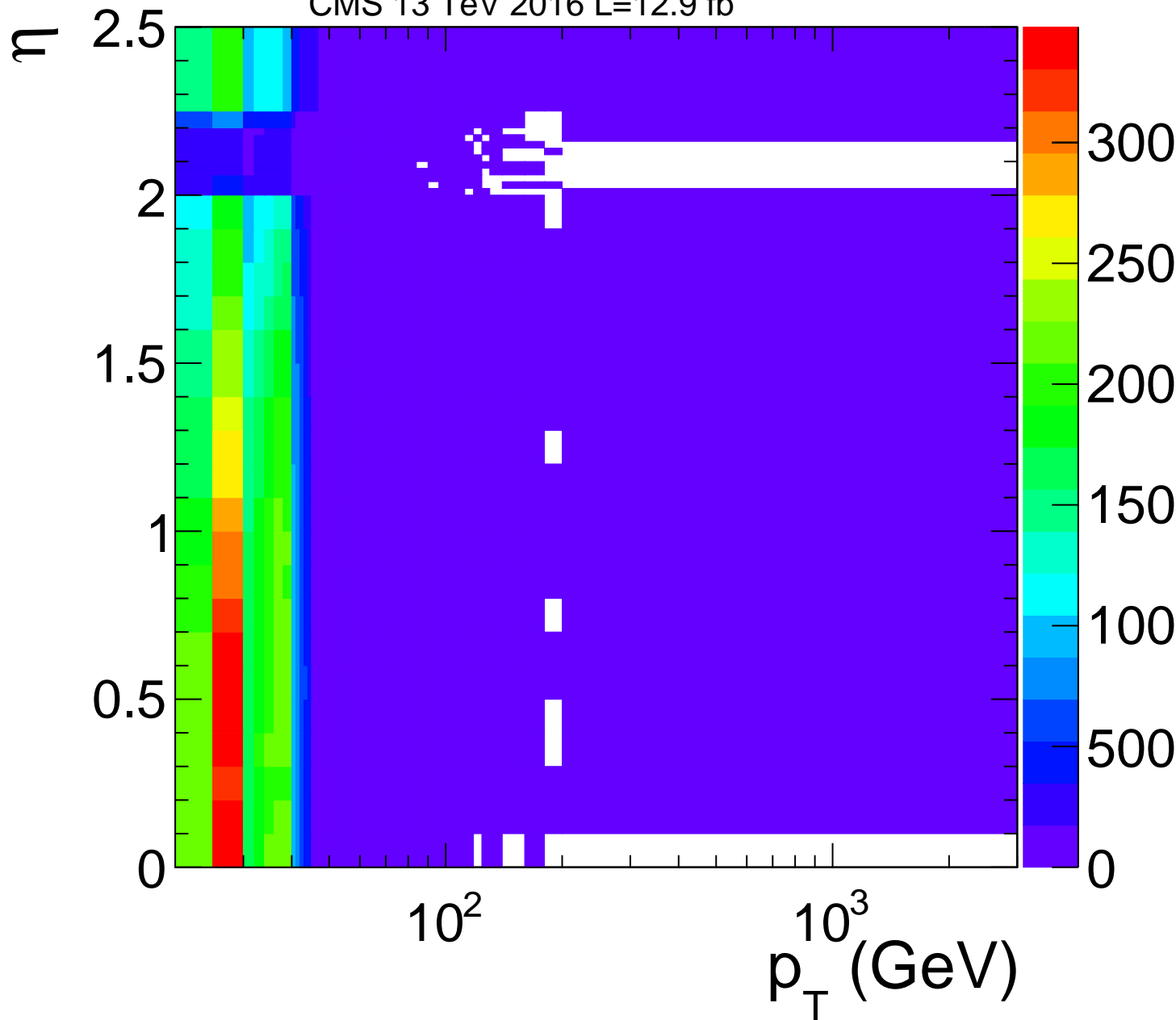
# htrg\_l2\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



htrg\_l2\_l1pl2f

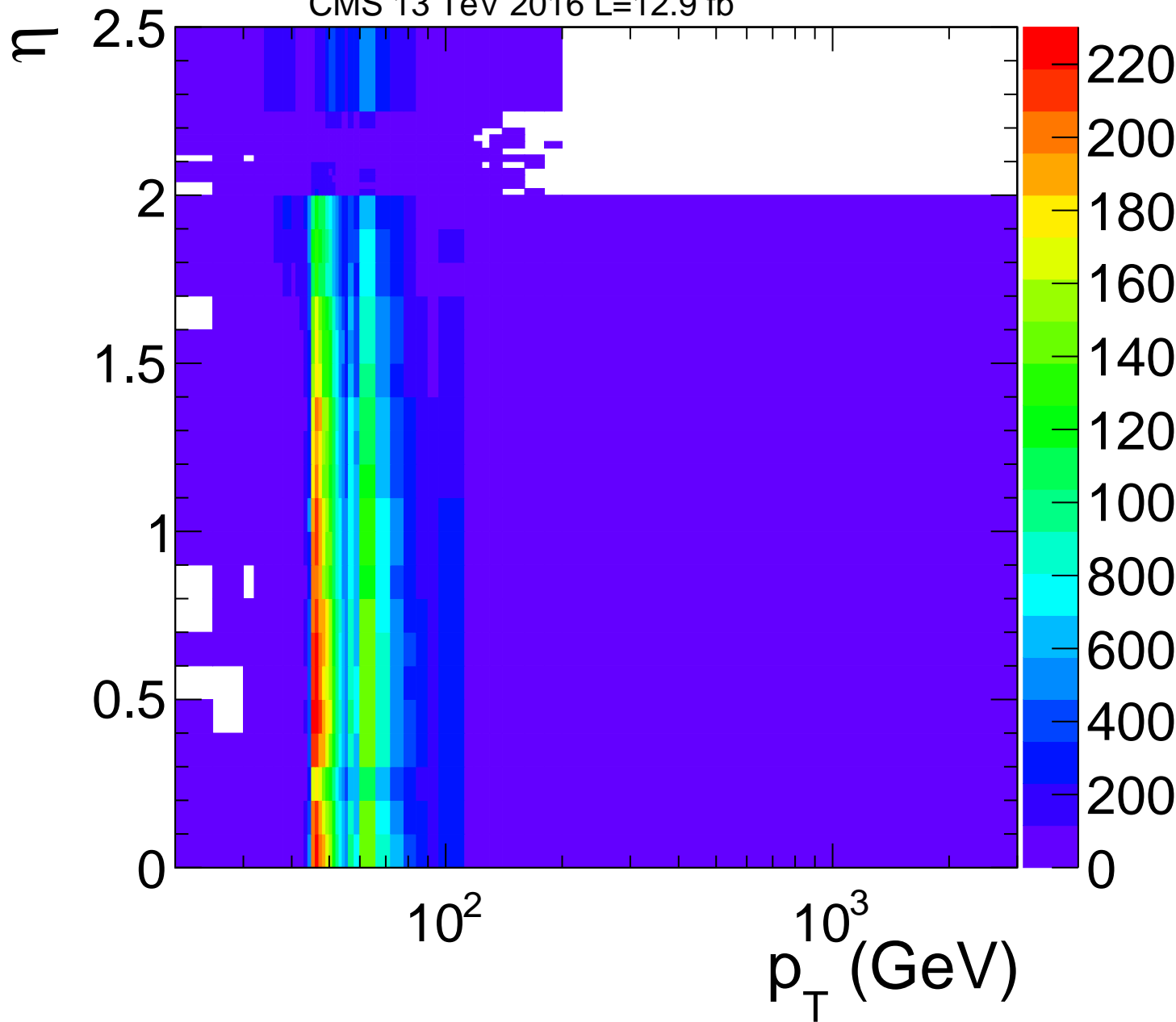
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





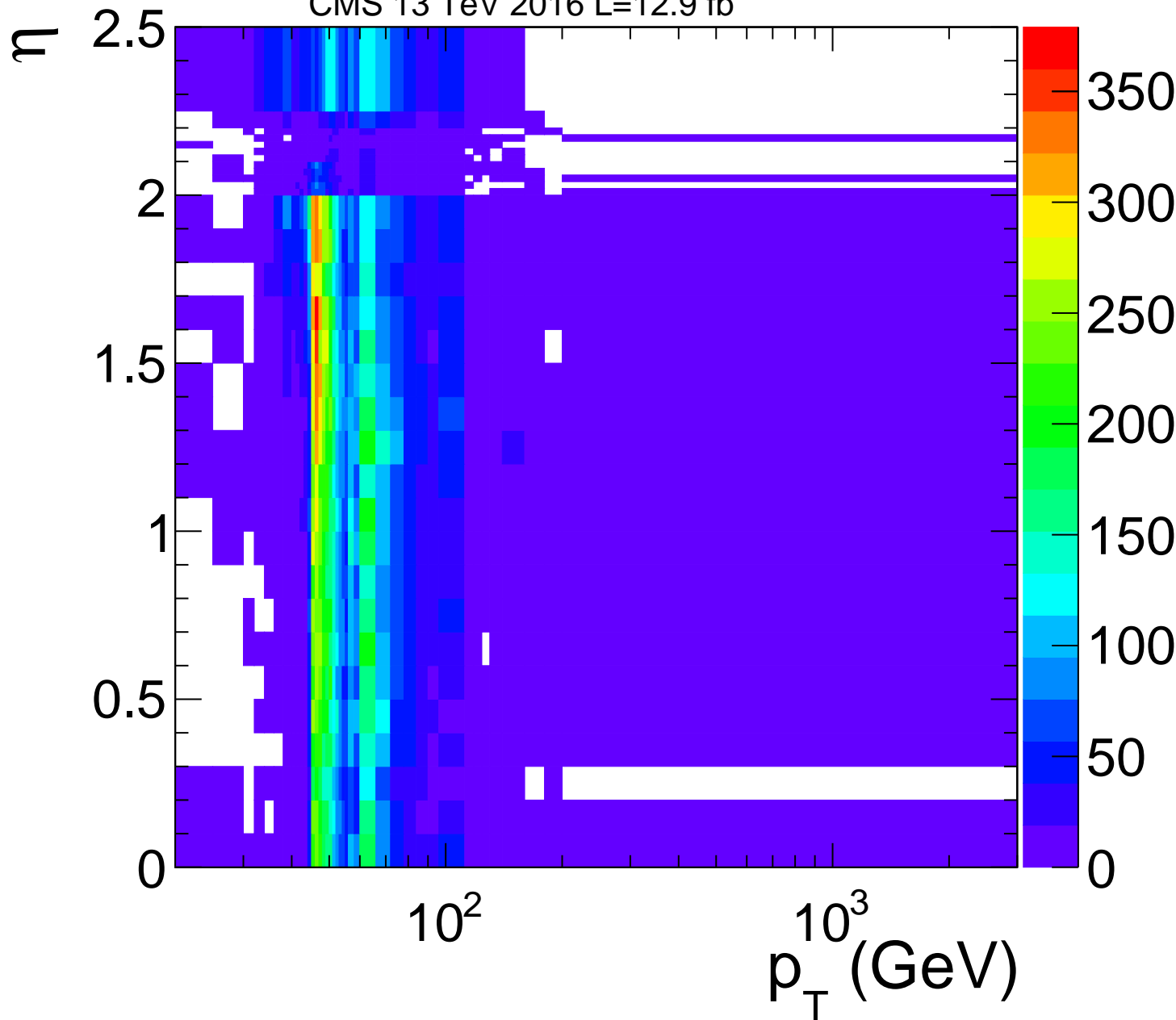
htrg\_l2\_l1pl2p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



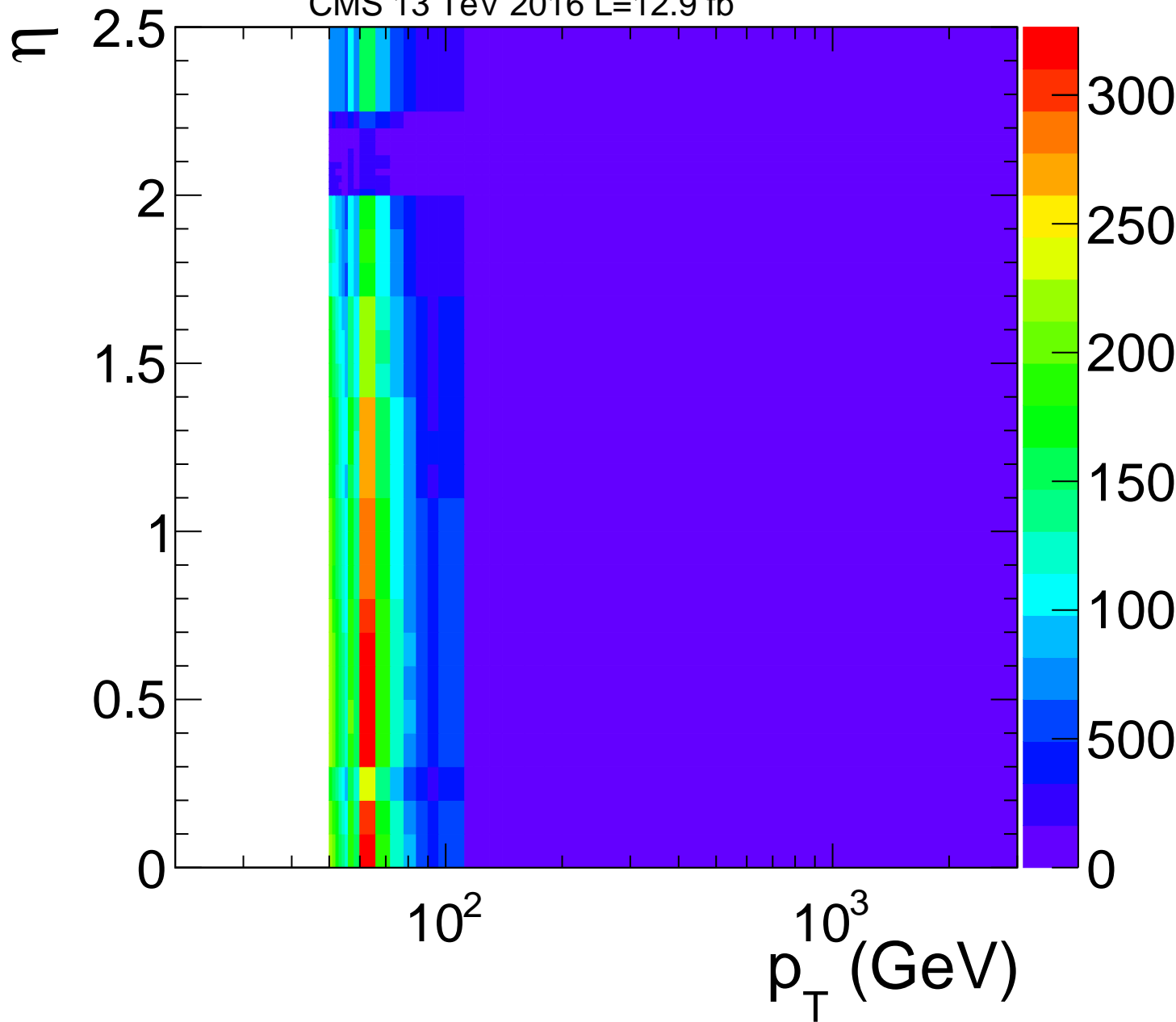
htrg\_l2\_l1fl2p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



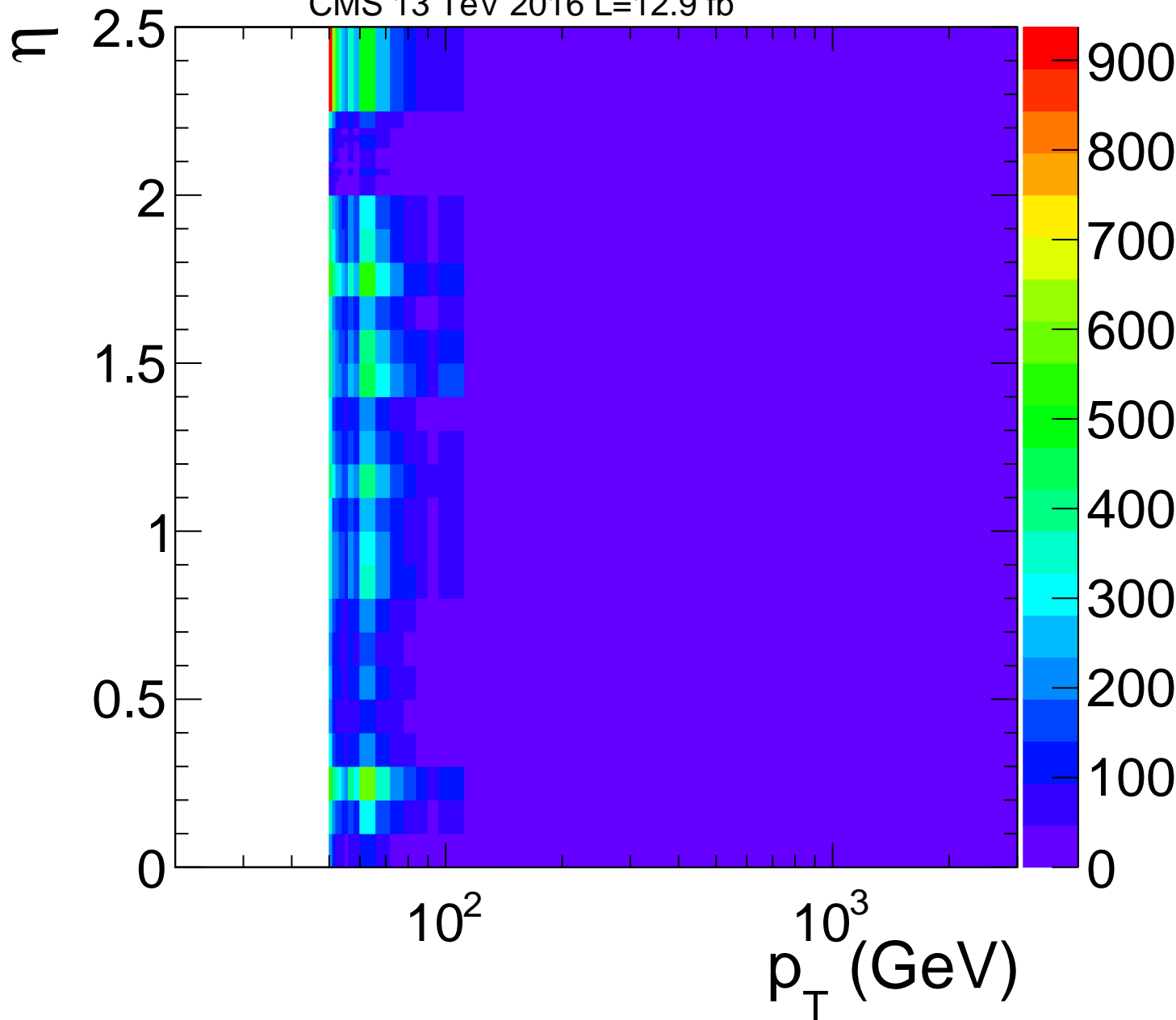
htrg\_l1\_l1p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



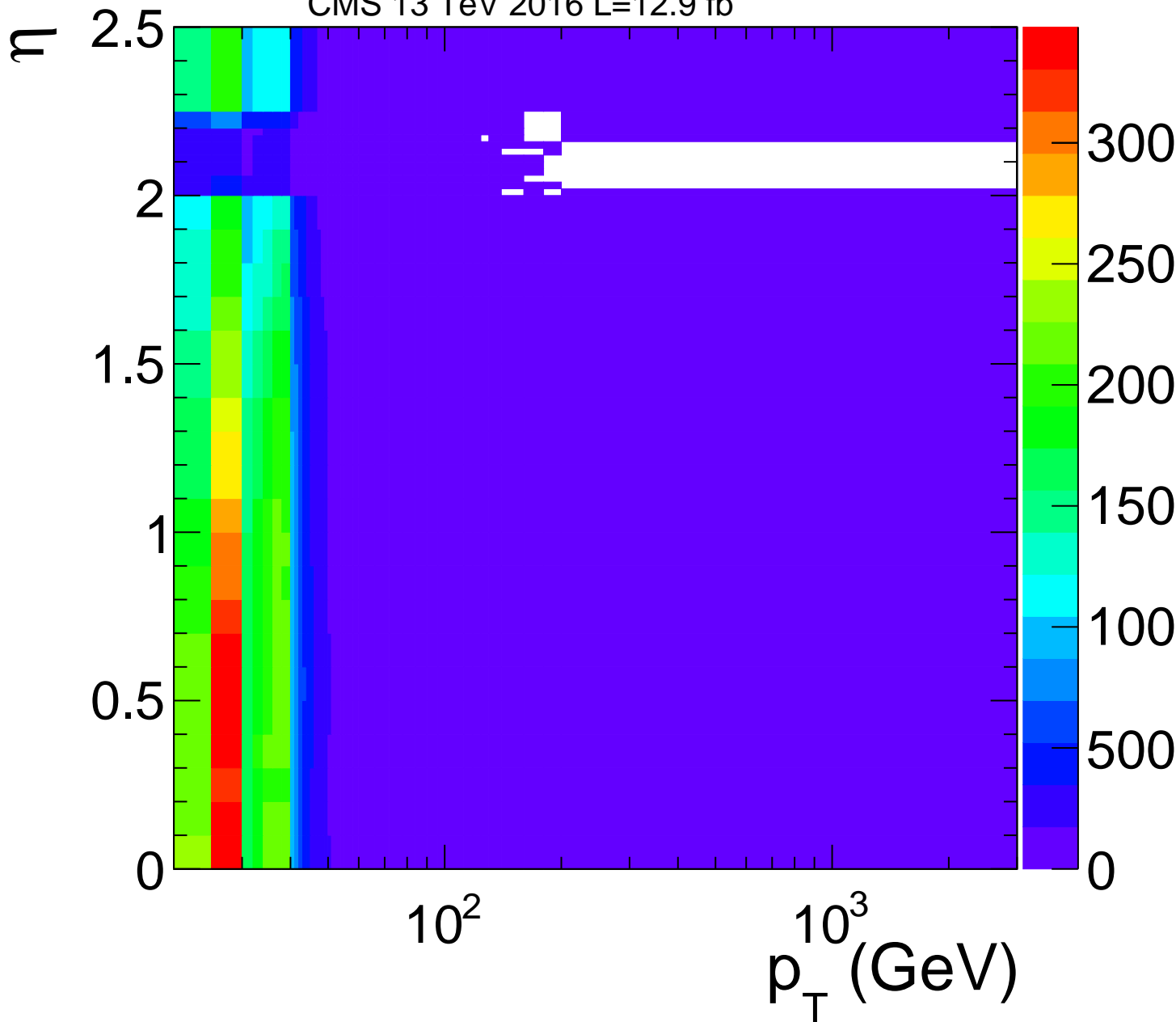
htrg\_l1\_l1f

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



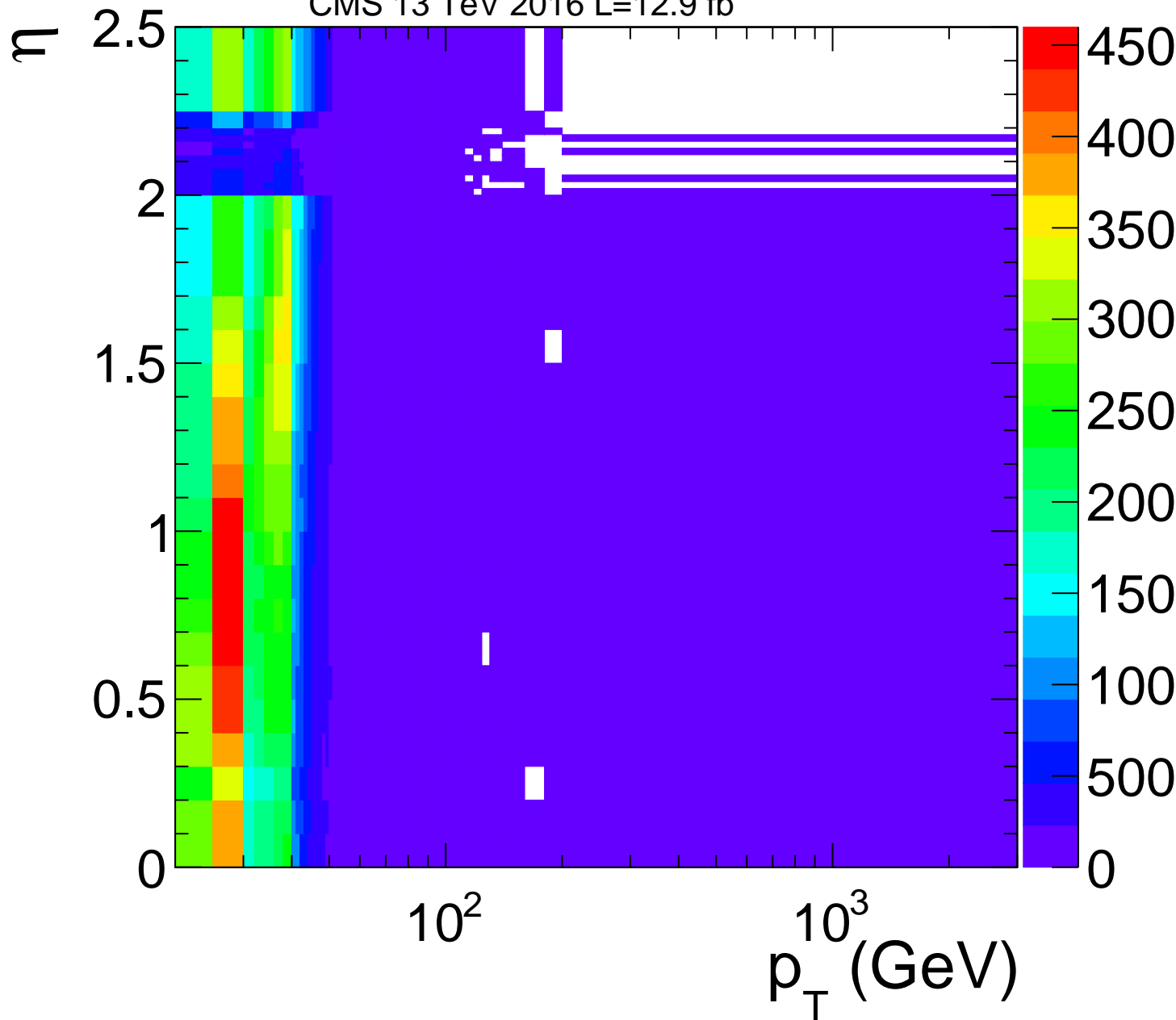
htrg\_l2\_l1p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



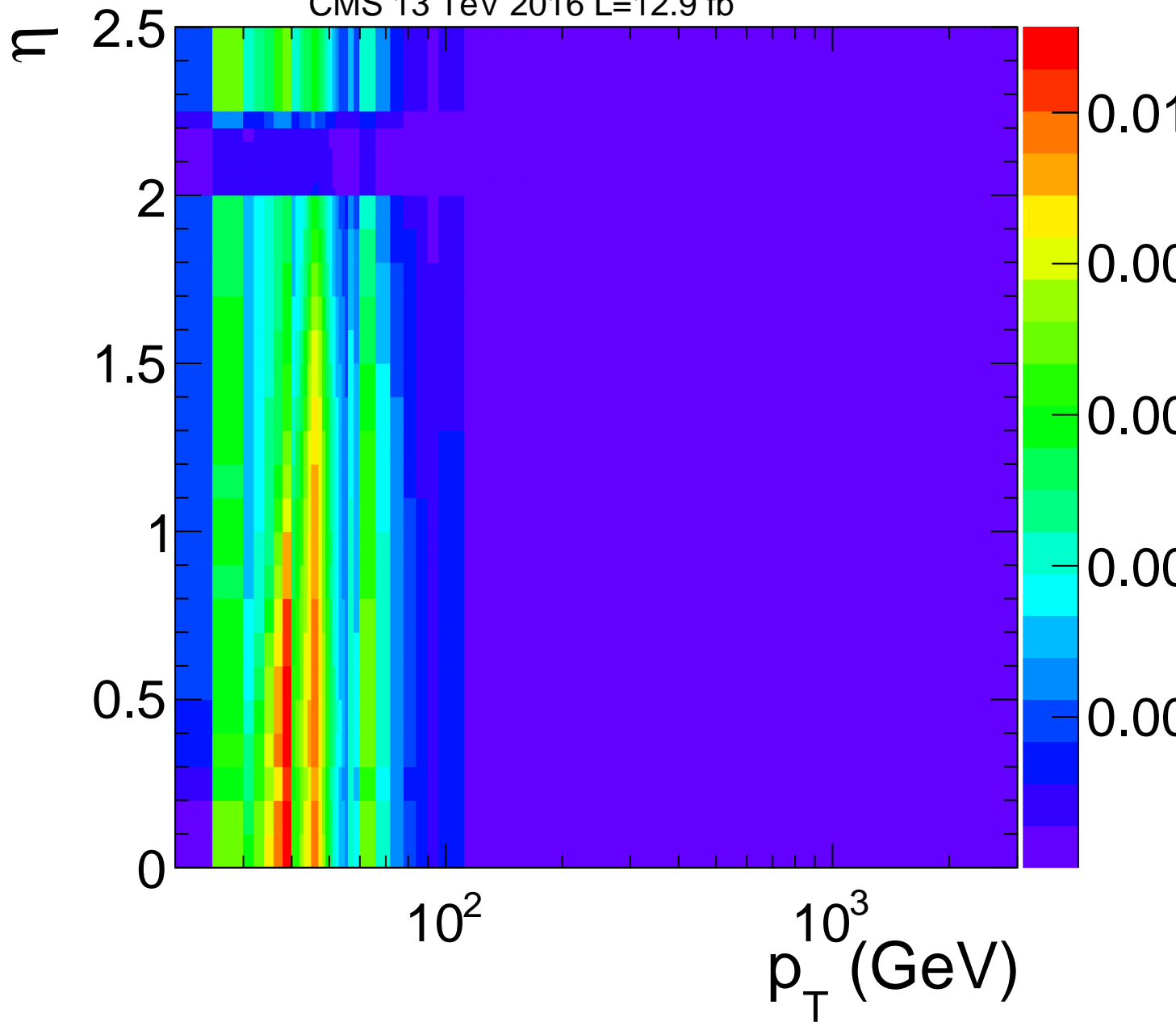
# htrg\_l2\_l1f

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



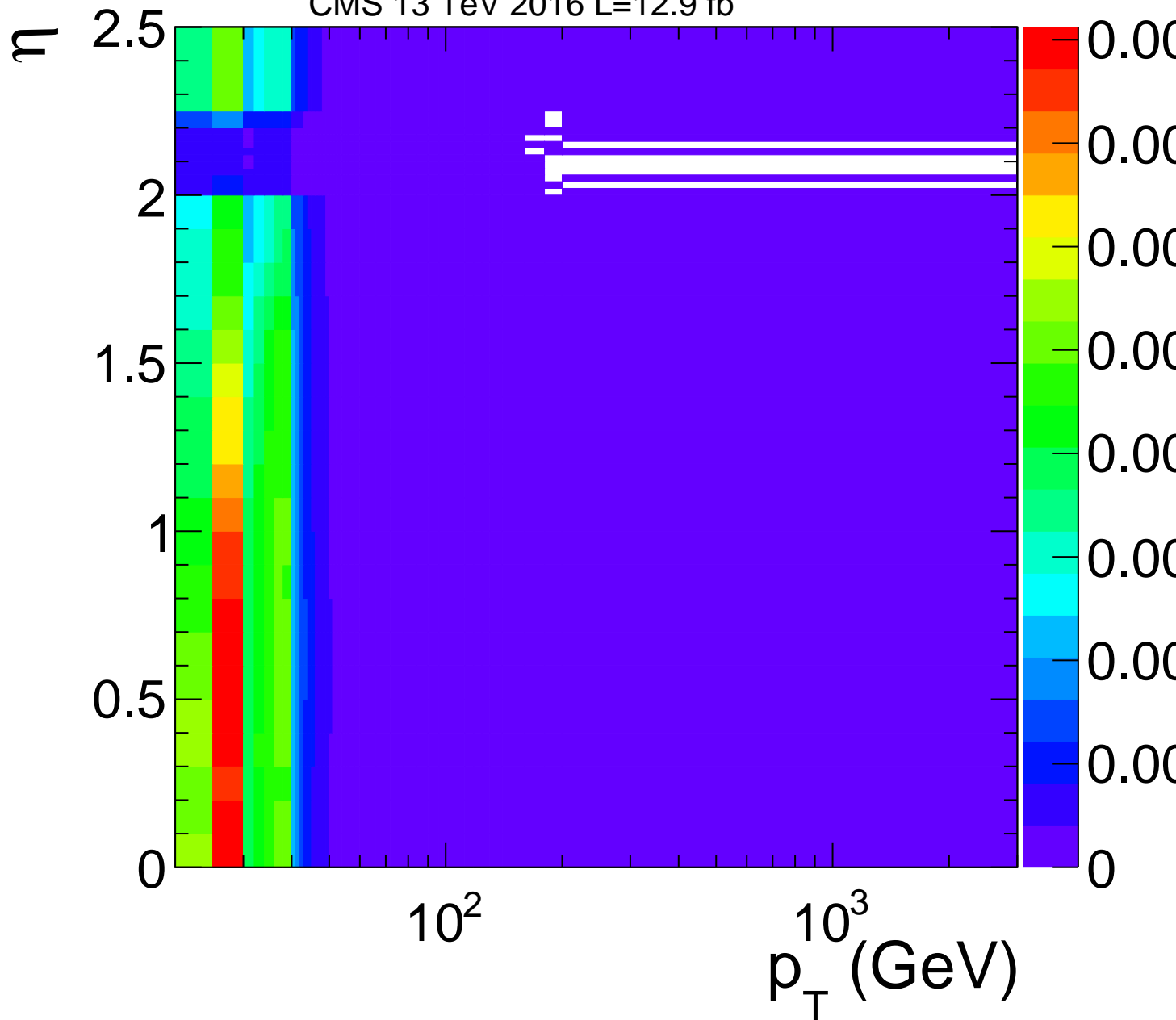
# htrg\_l1\_tot\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_l2\_tot\_norm

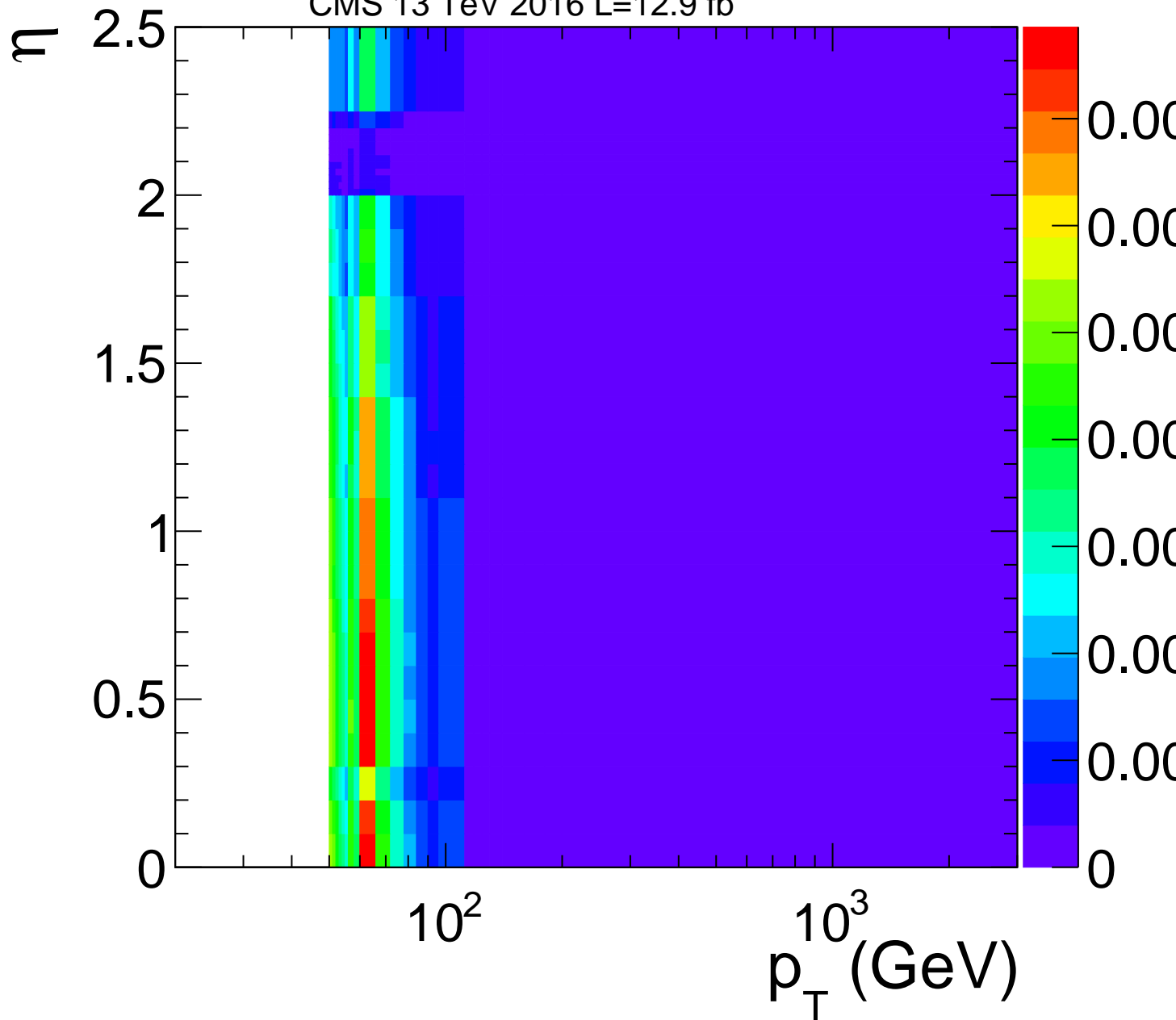
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





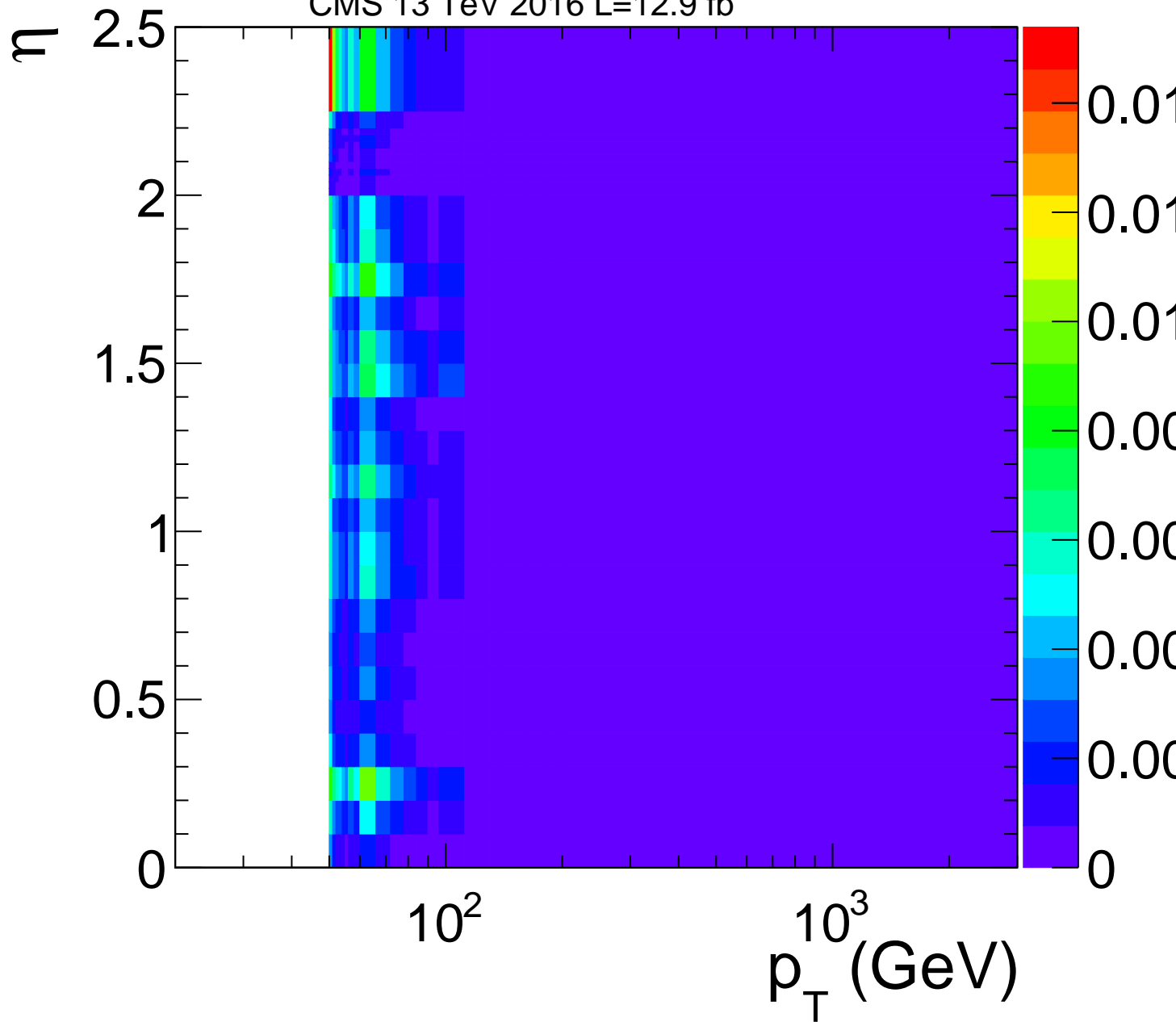
# htrg\_l1\_l1p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



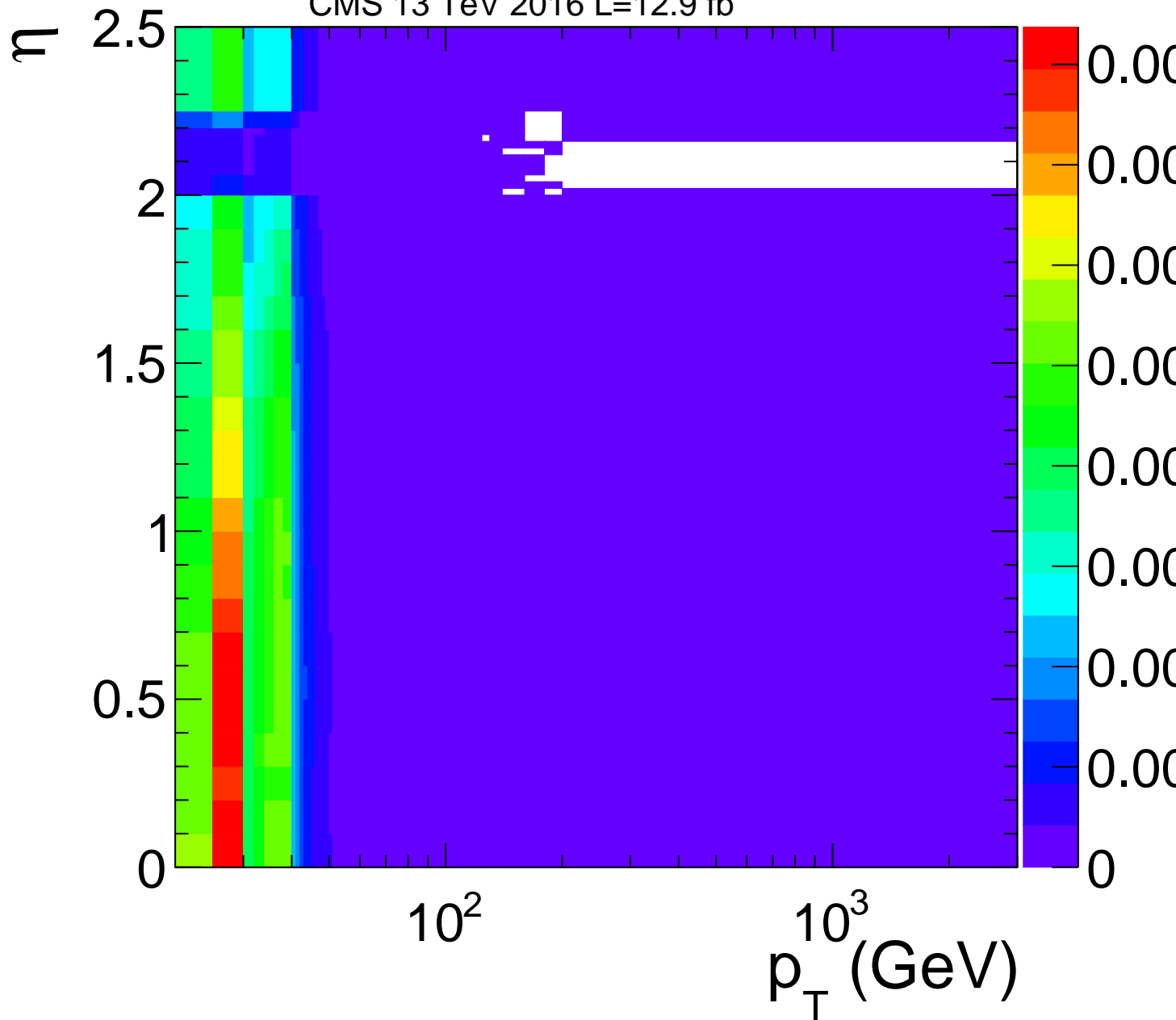
# htrg\_l1\_l1f\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



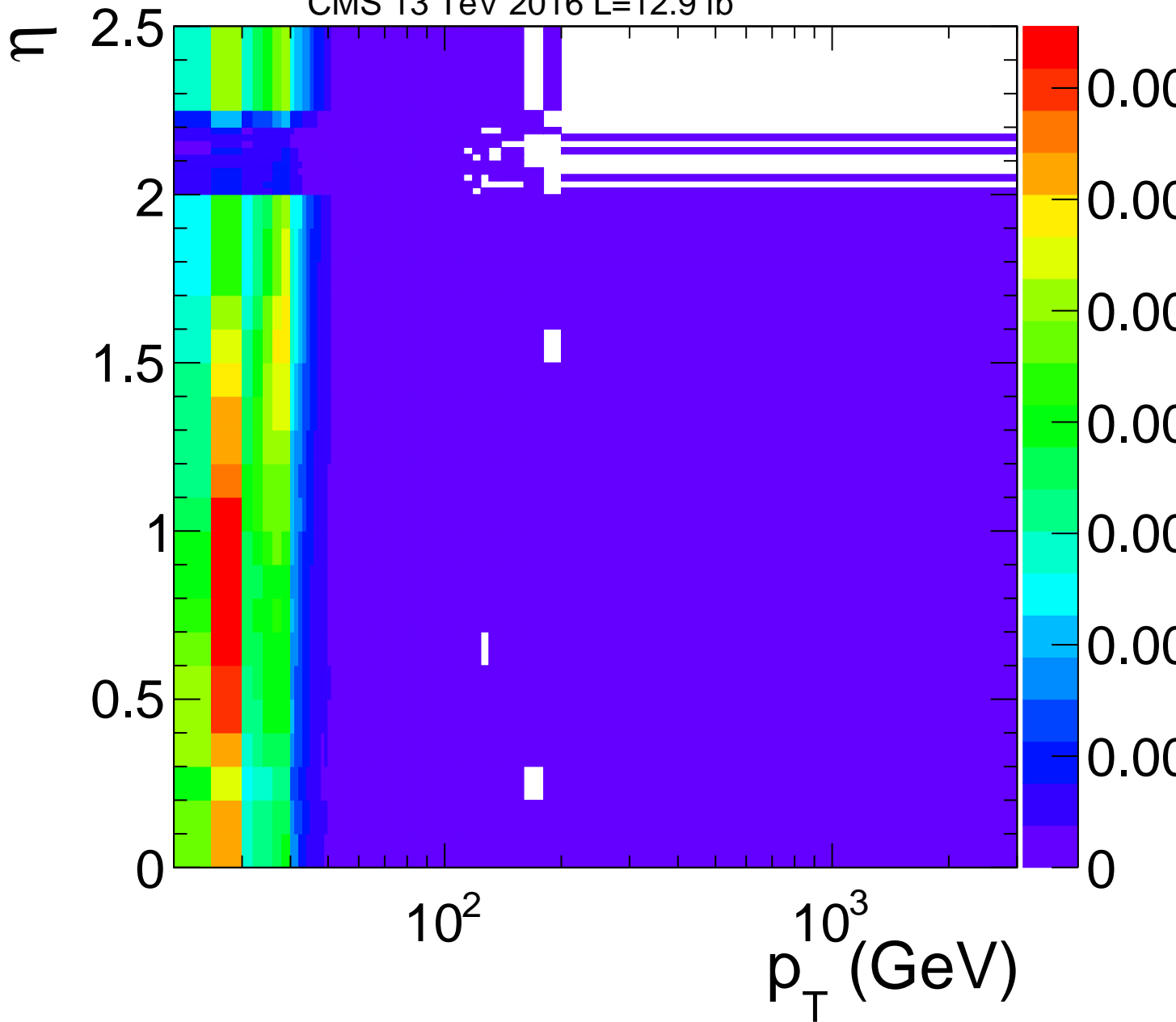
# htrg\_l2\_l1p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



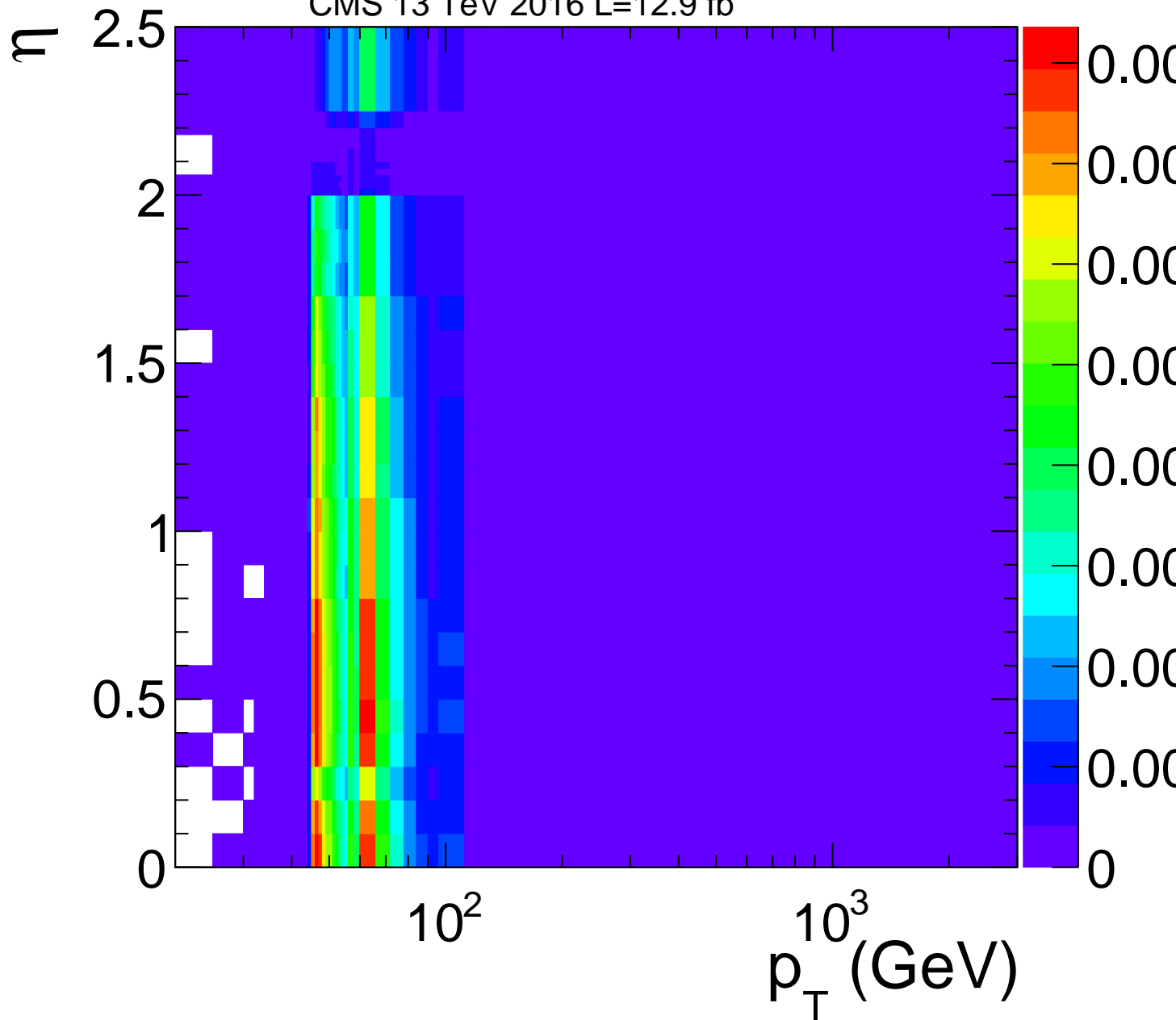
# htrg\_l2\_l1f\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



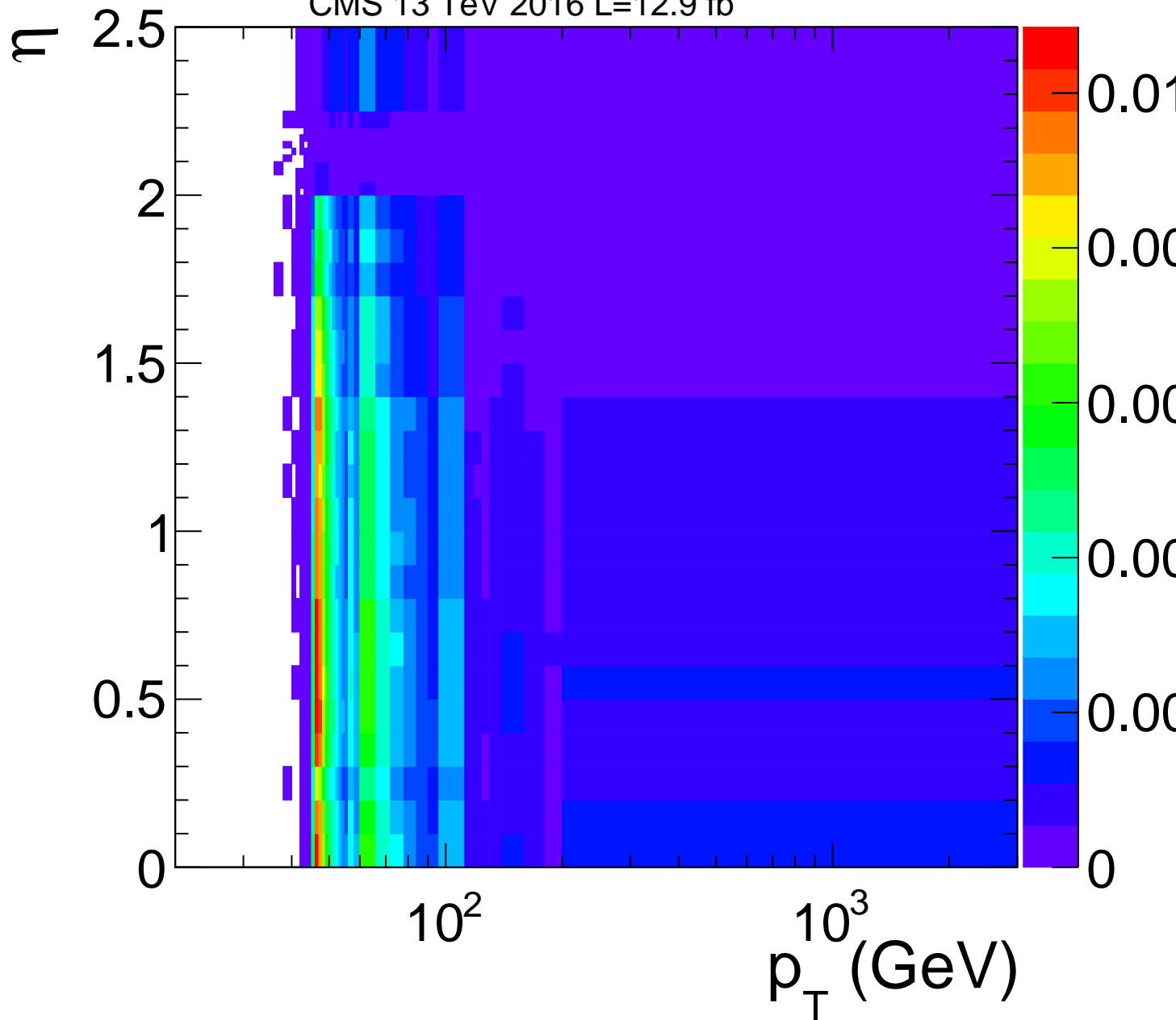
# htrg\_l1\_l1pl2f\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



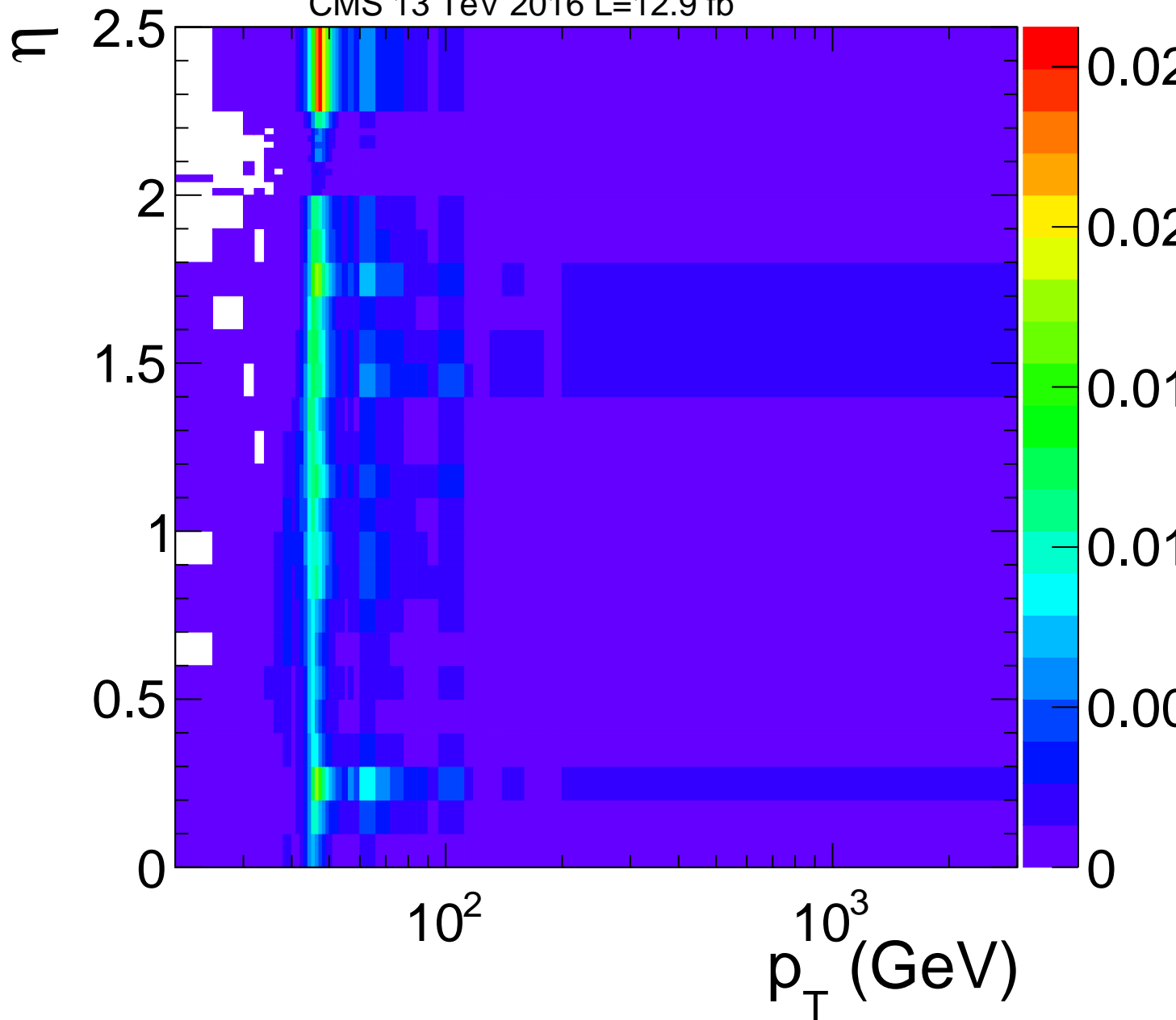
# htrg\_l1\_l1pl2p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



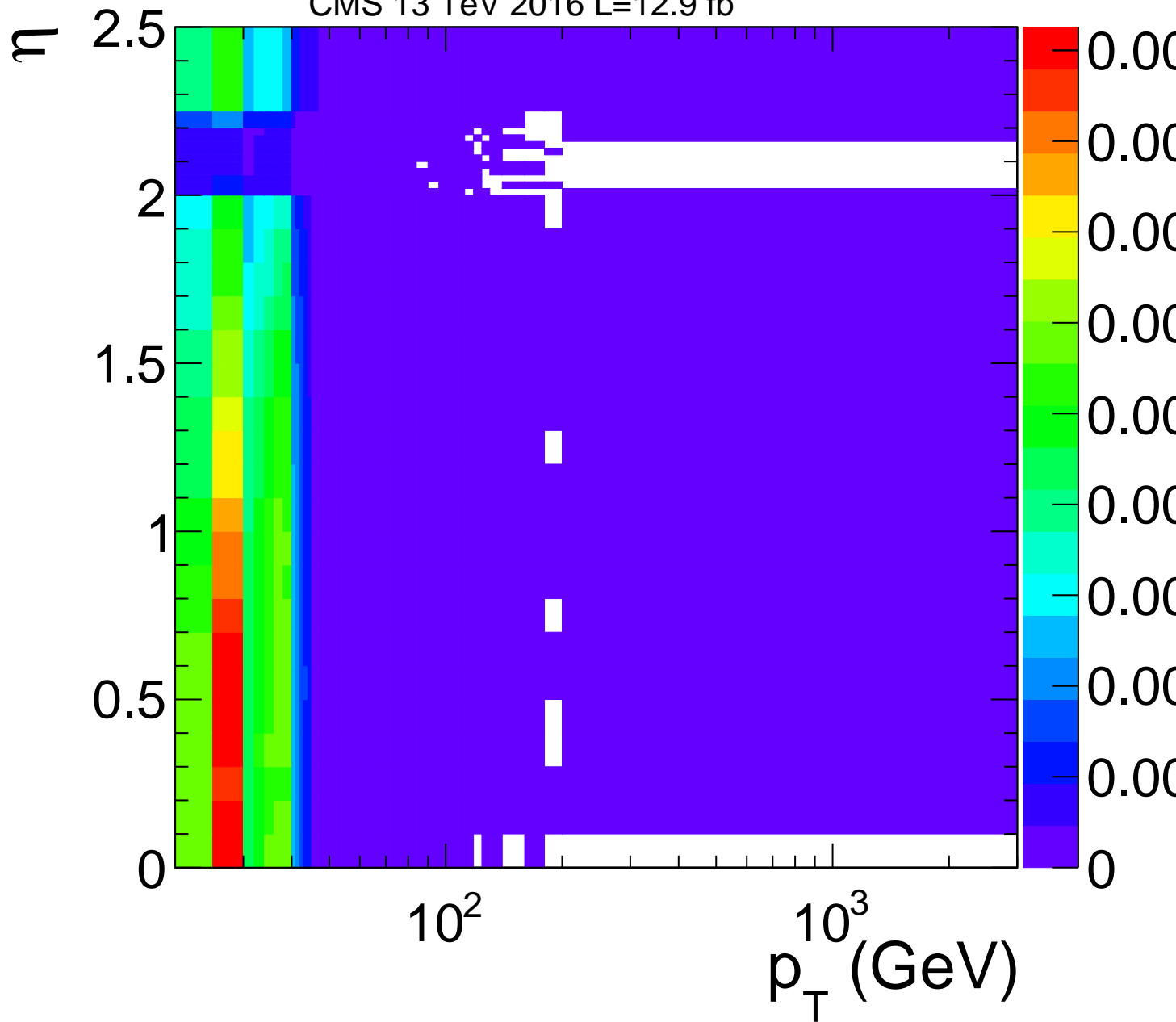
# htrg\_l1\_l1fl2p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_l2\_l1pl2f\_norm

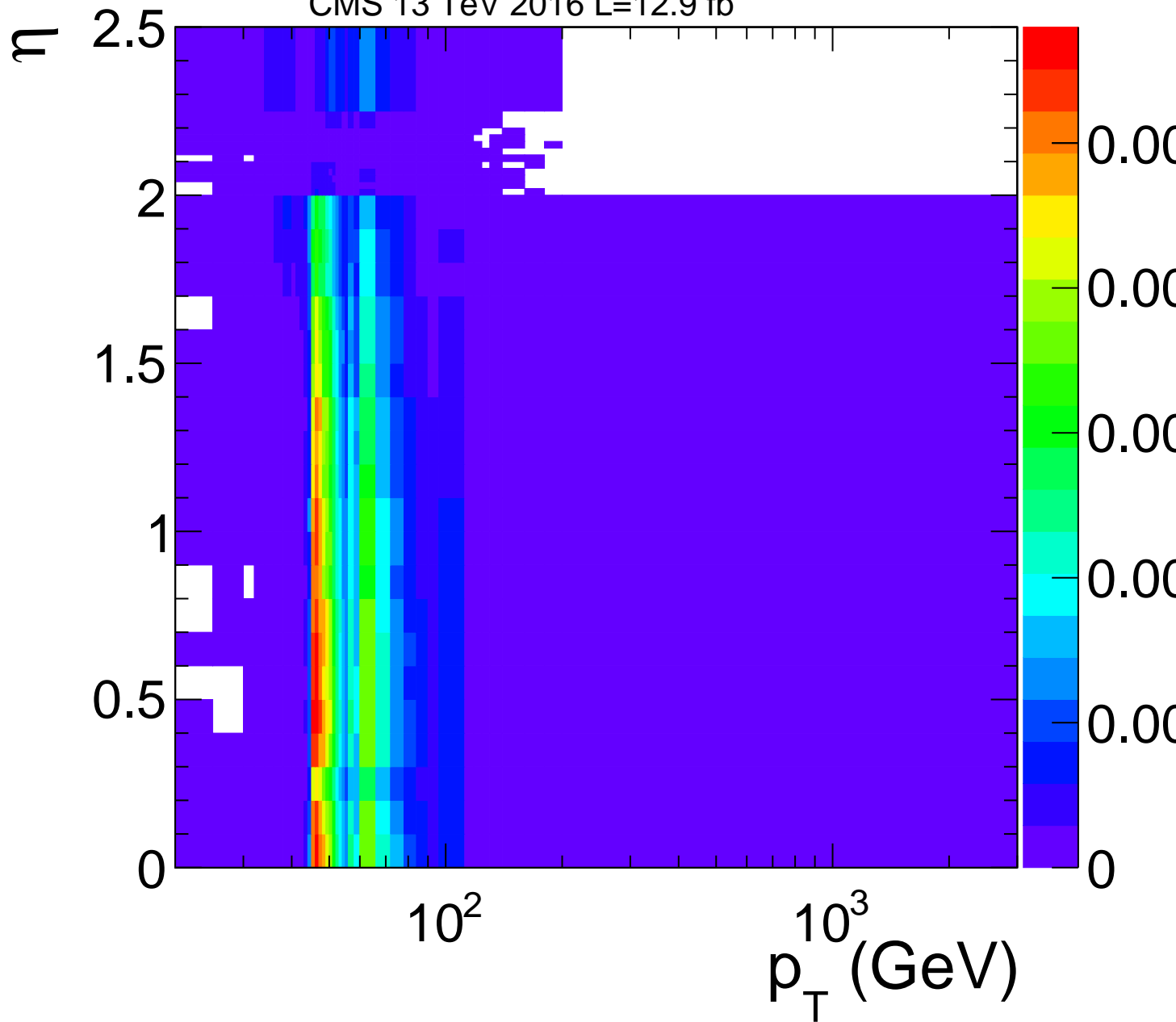
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





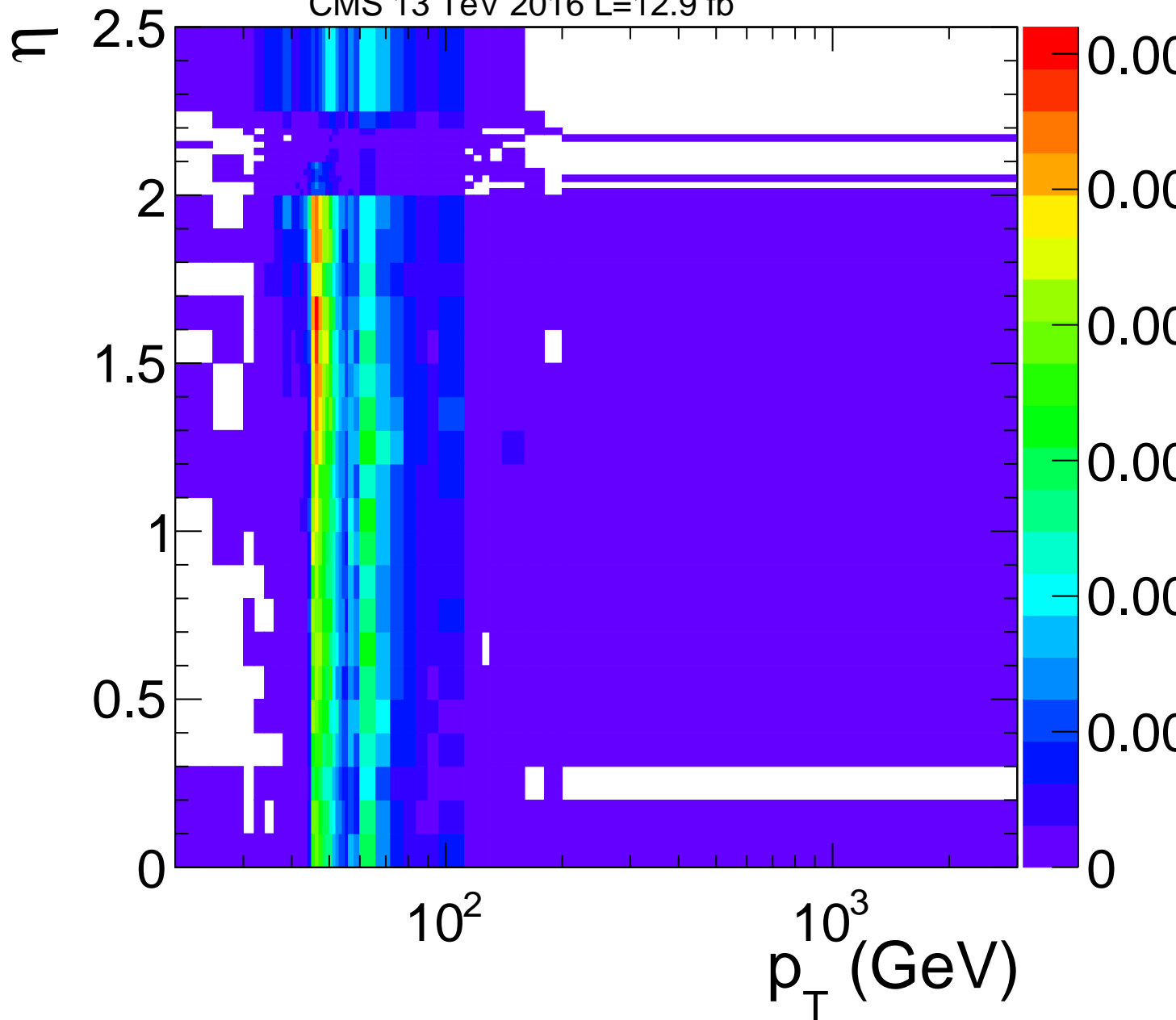
# htrg\_l2\_l1pl2p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



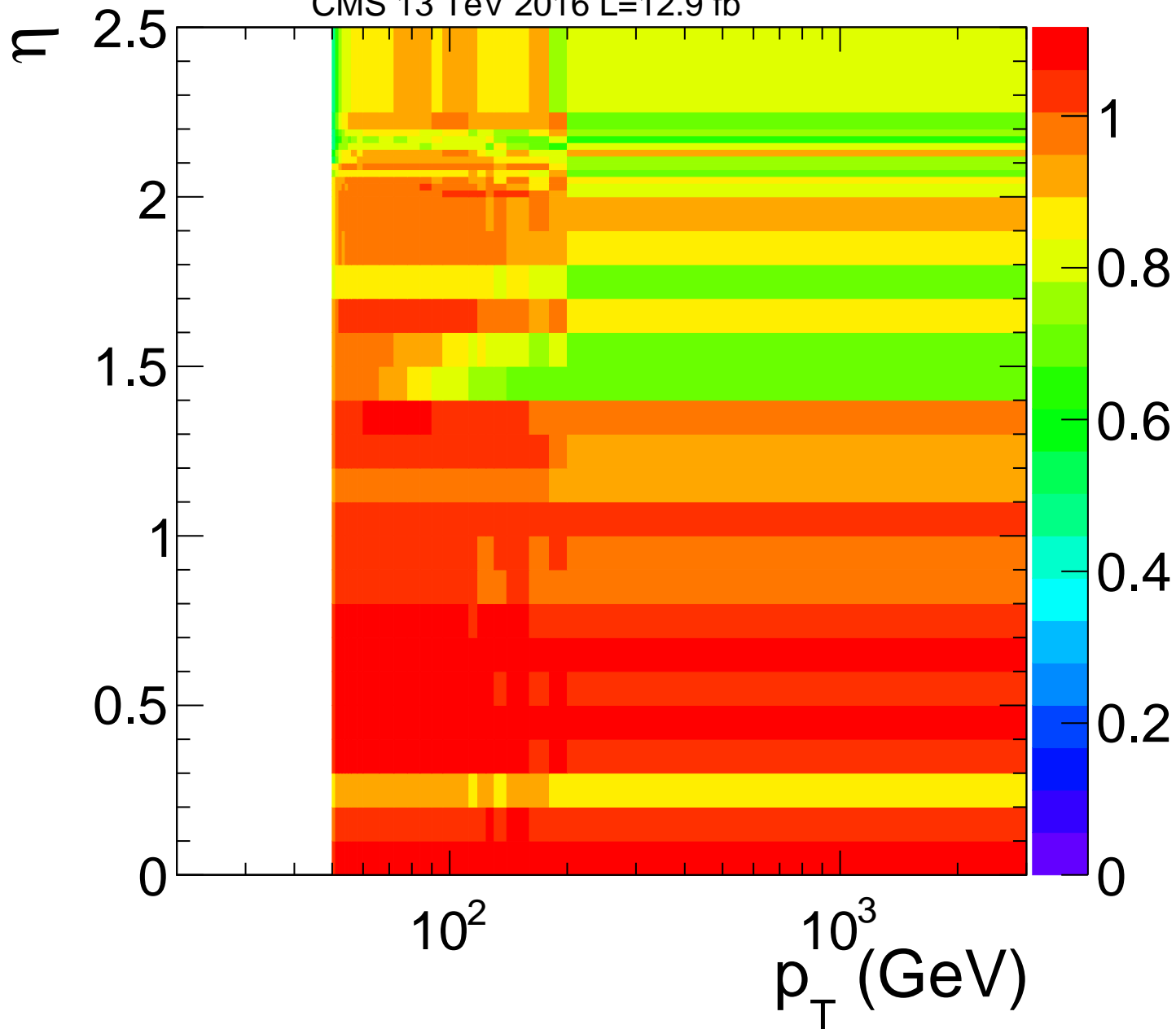
# htrg\_l2\_l1fl2p\_norm

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



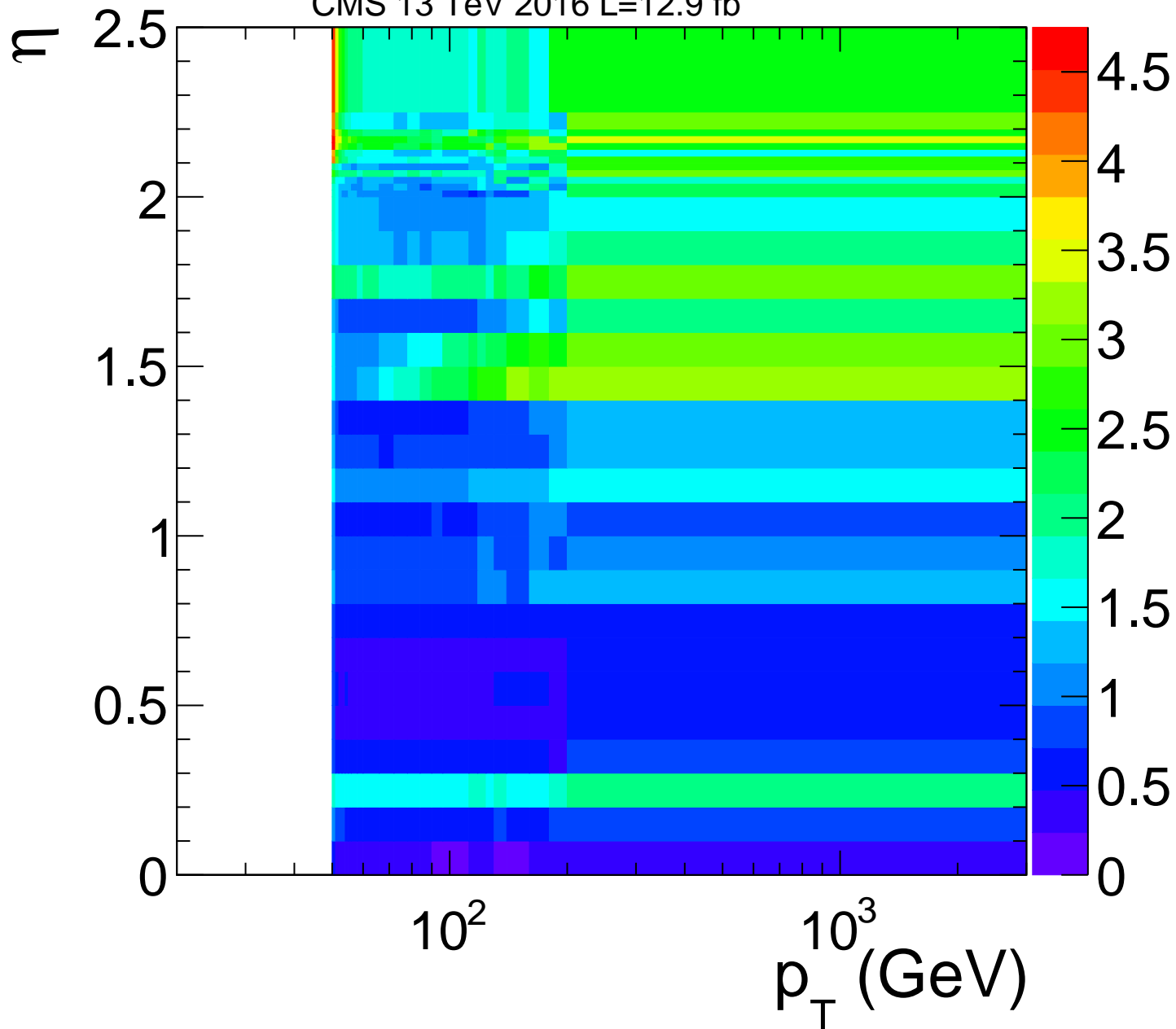
# htrg\_l1\_l1p\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



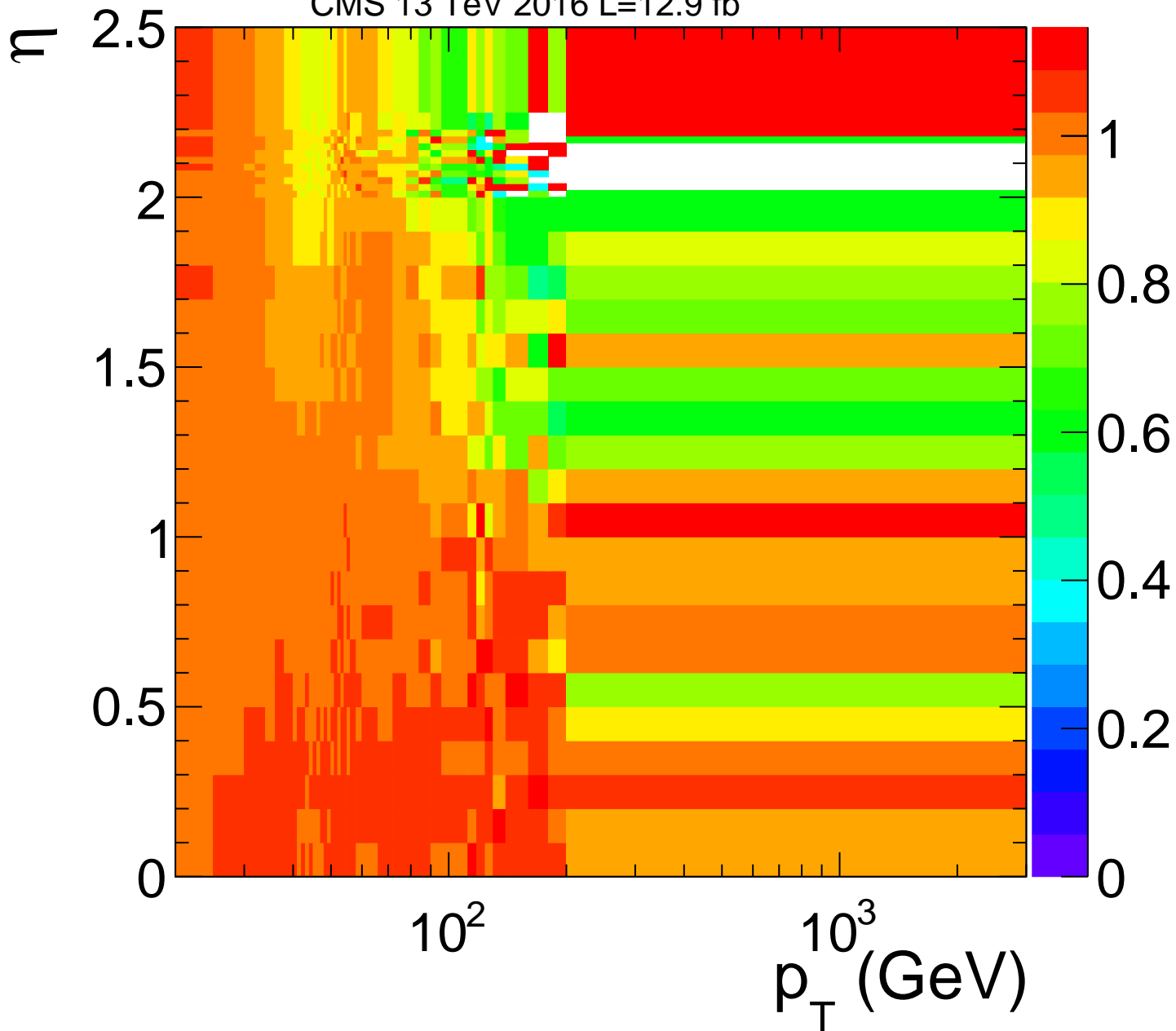
# htrg\_l1\_l1f\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



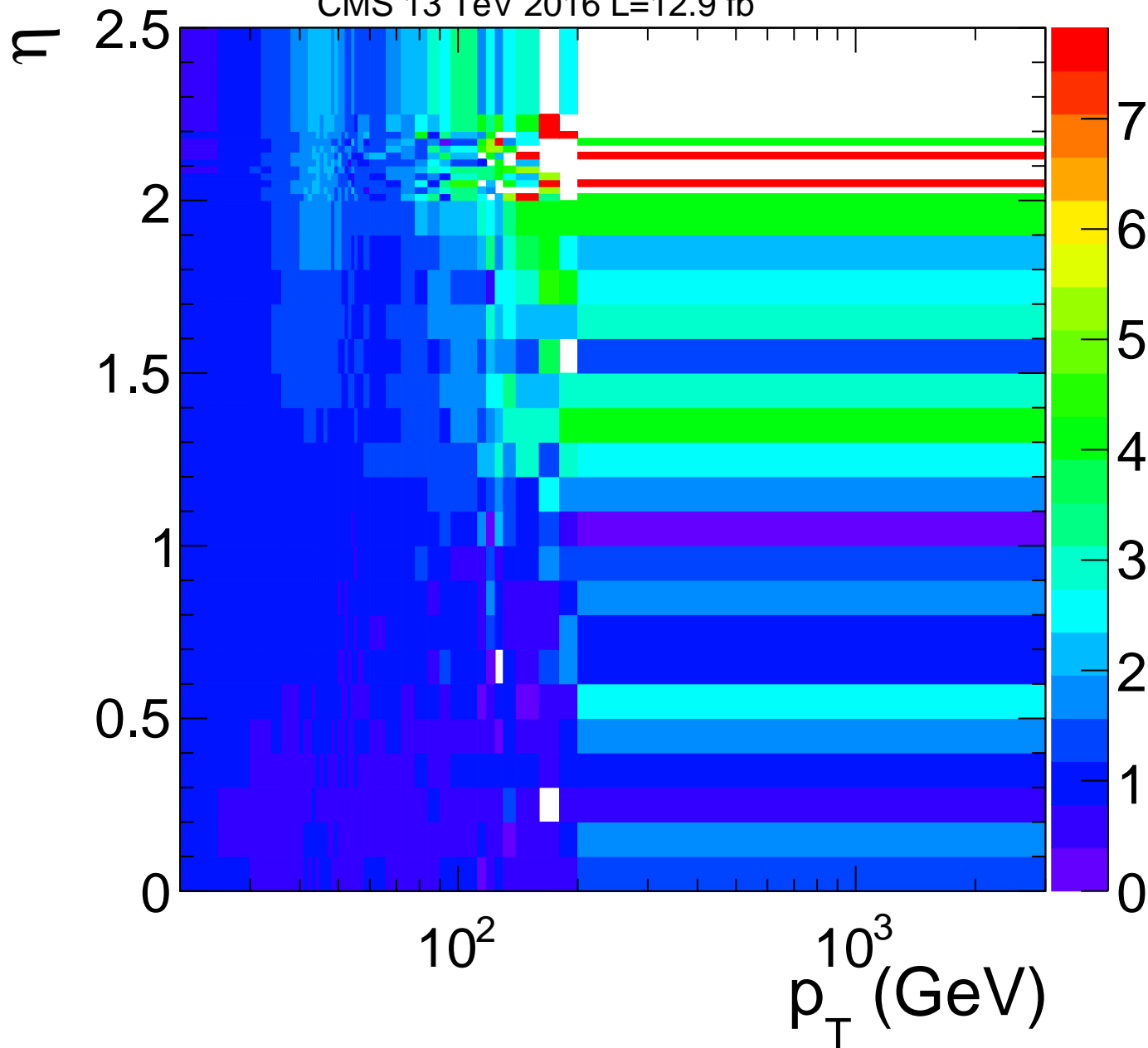
# htrg\_l2\_l1p\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



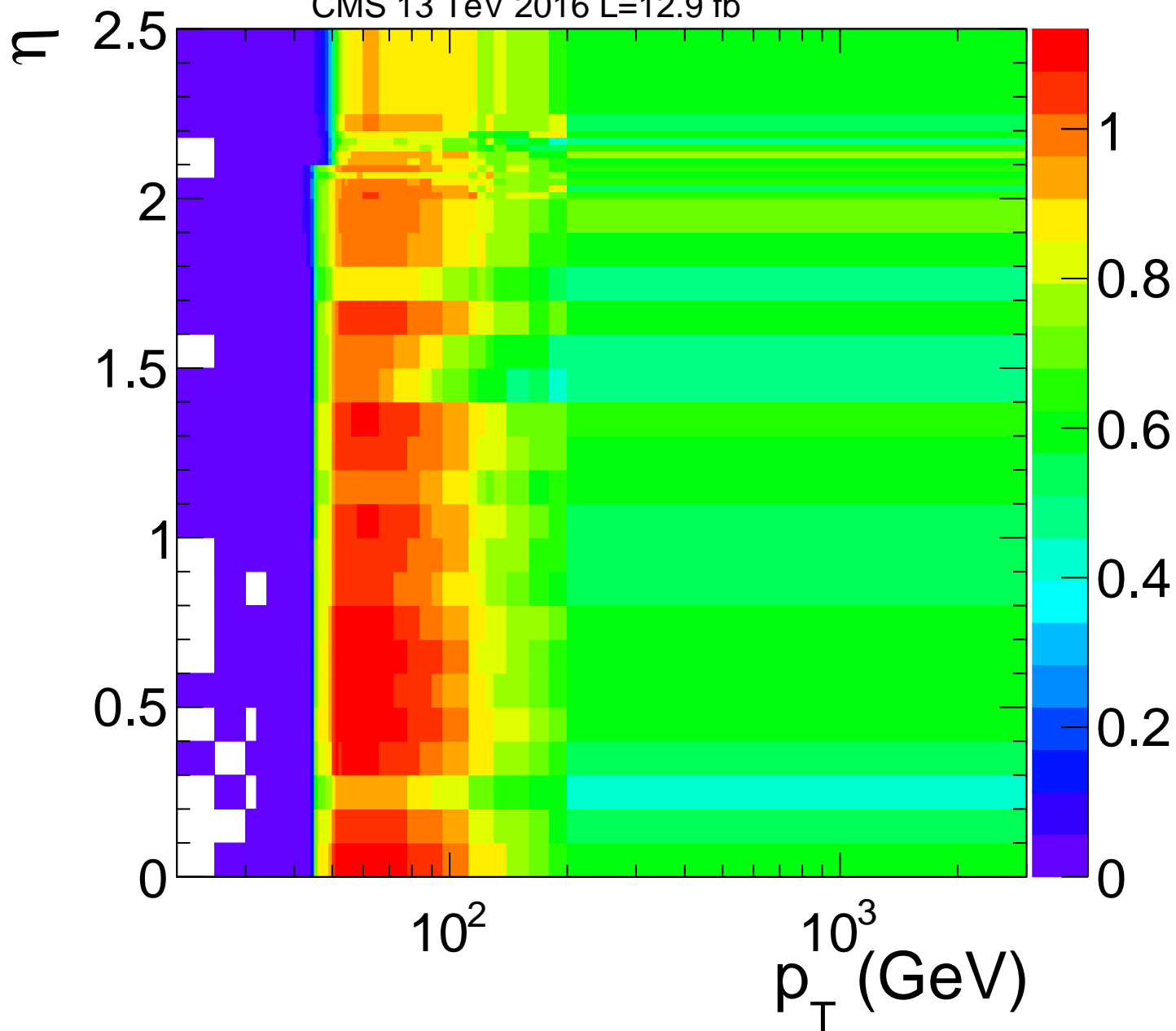
# htrg\_l2\_l1f\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



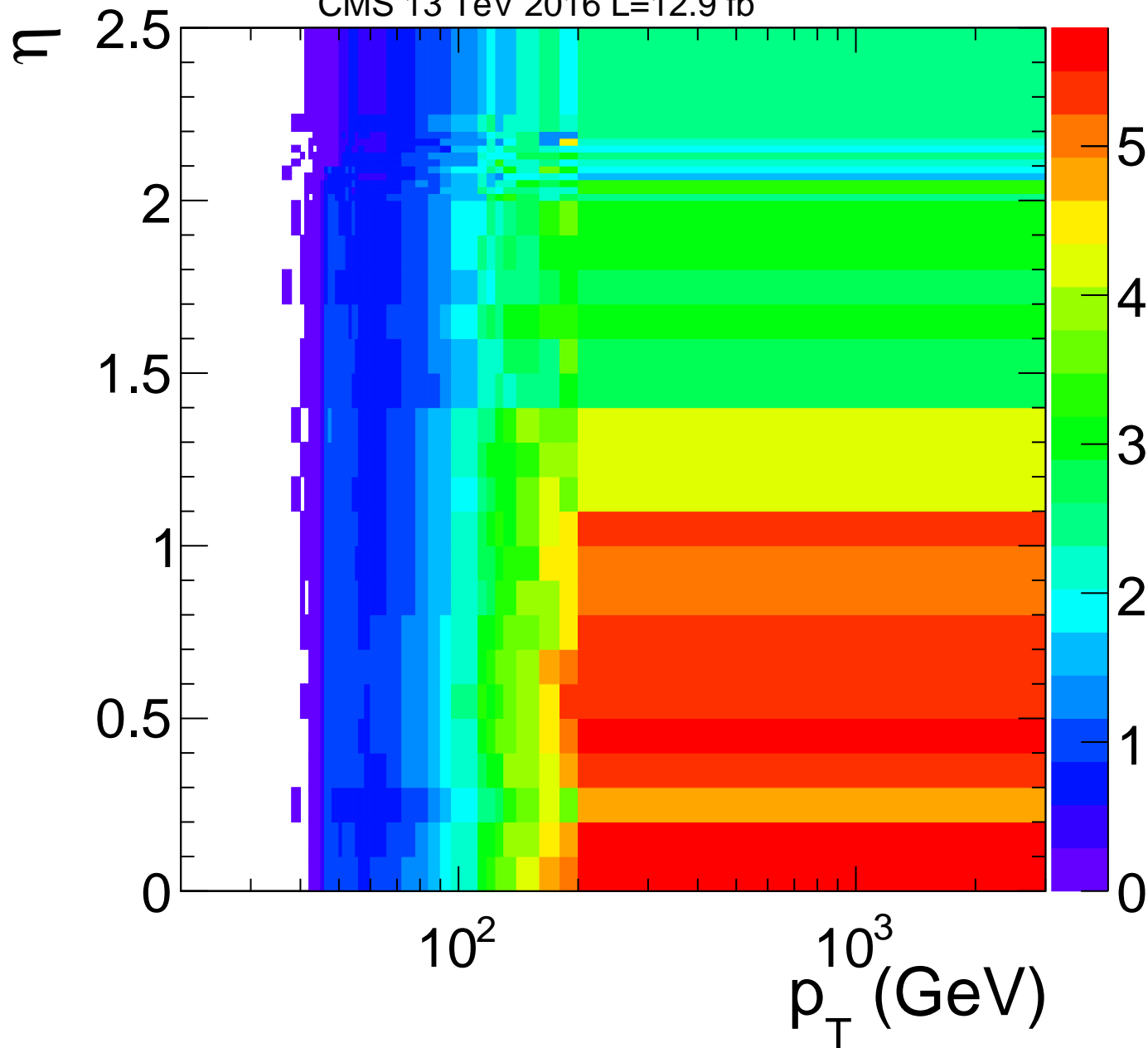
# htrg\_l1\_l1pl2f\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_l1\_l1pl2p\_norm\_vs\_tot

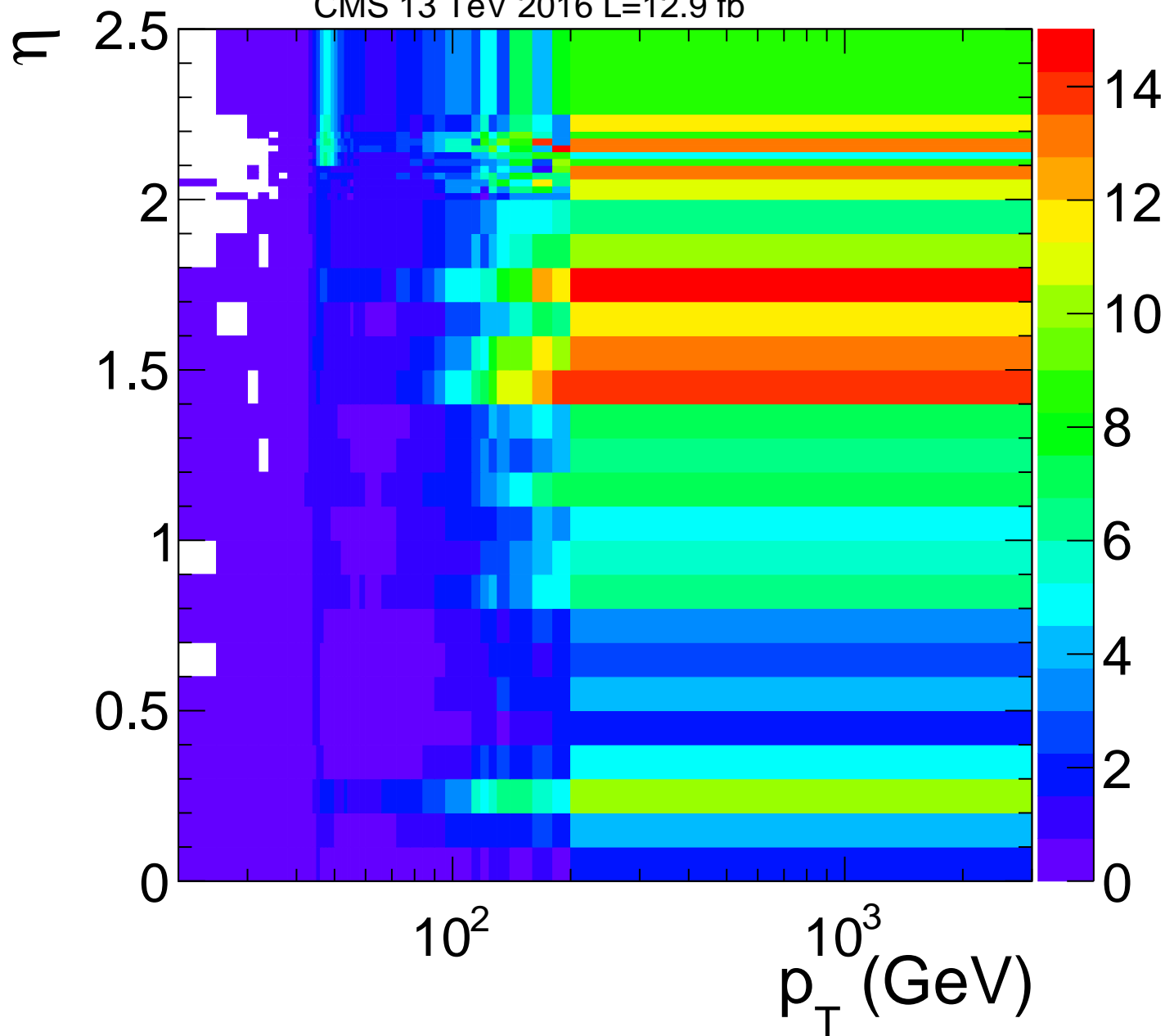
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





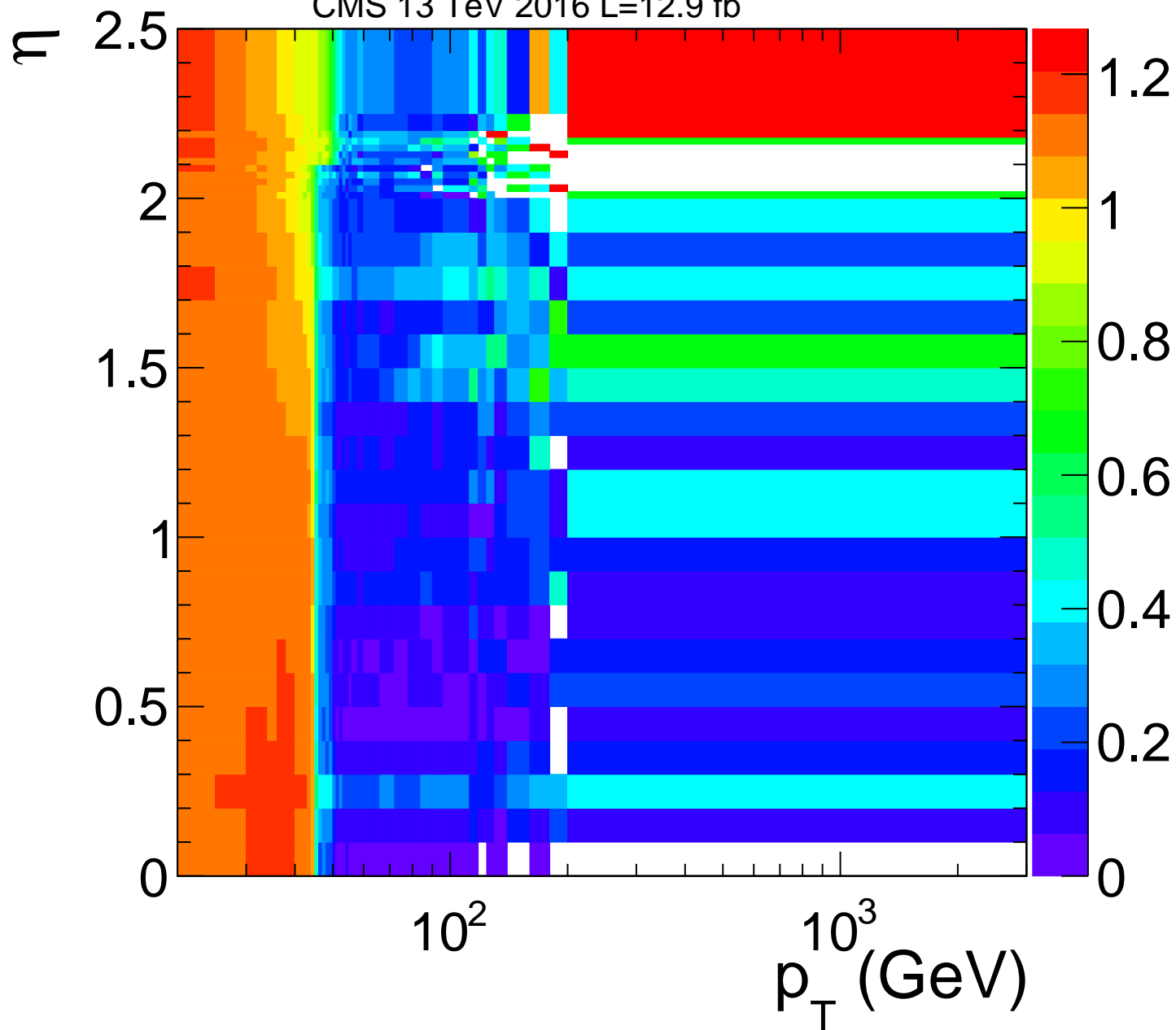
# htrg\_l1\_l1fl2p\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



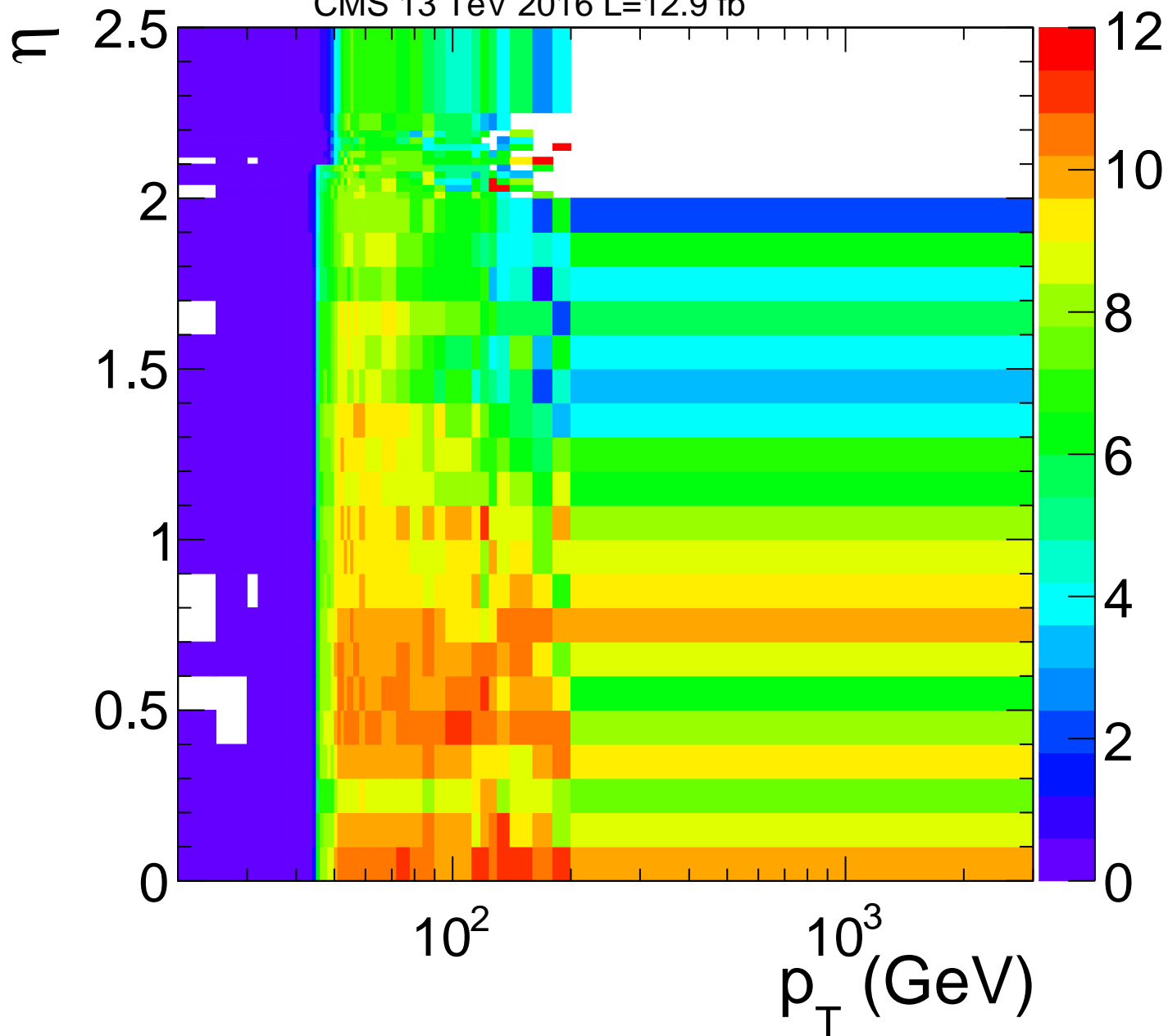
# htrg\_l2\_l1pl2f\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



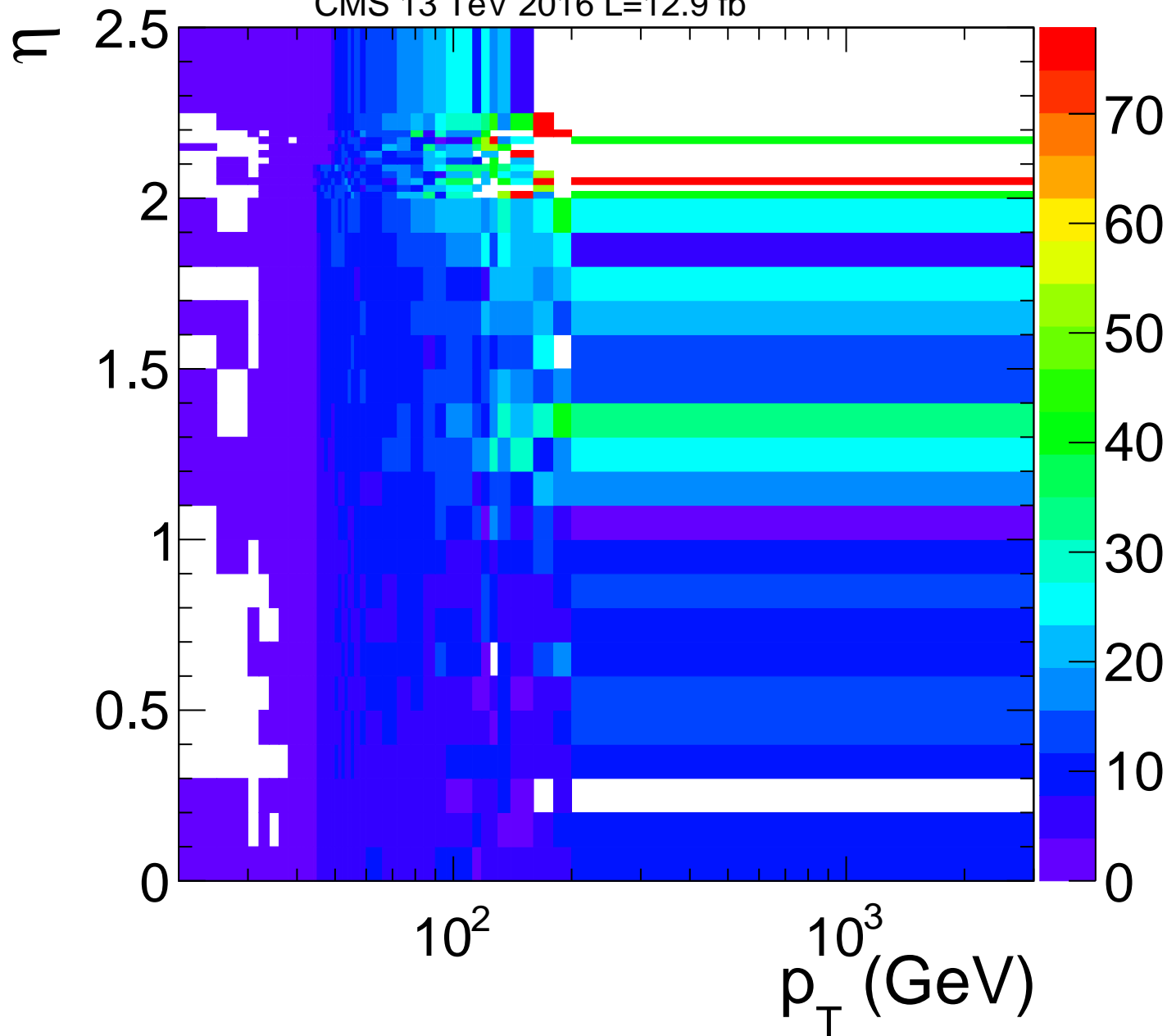
# htrg\_l2\_l1pl2p\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



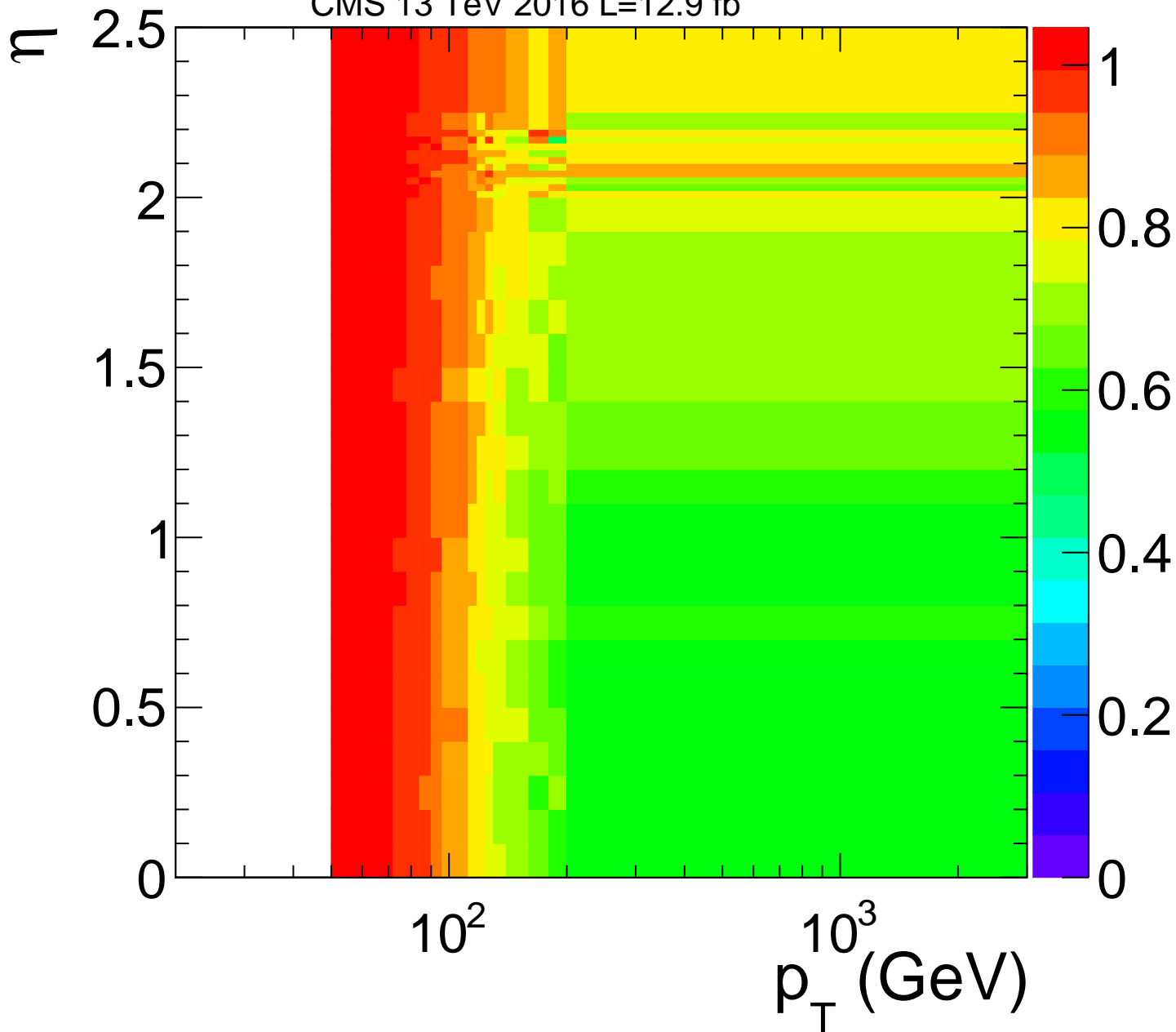
# htrg\_l2\_l1fl2p\_norm\_vs\_tot

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



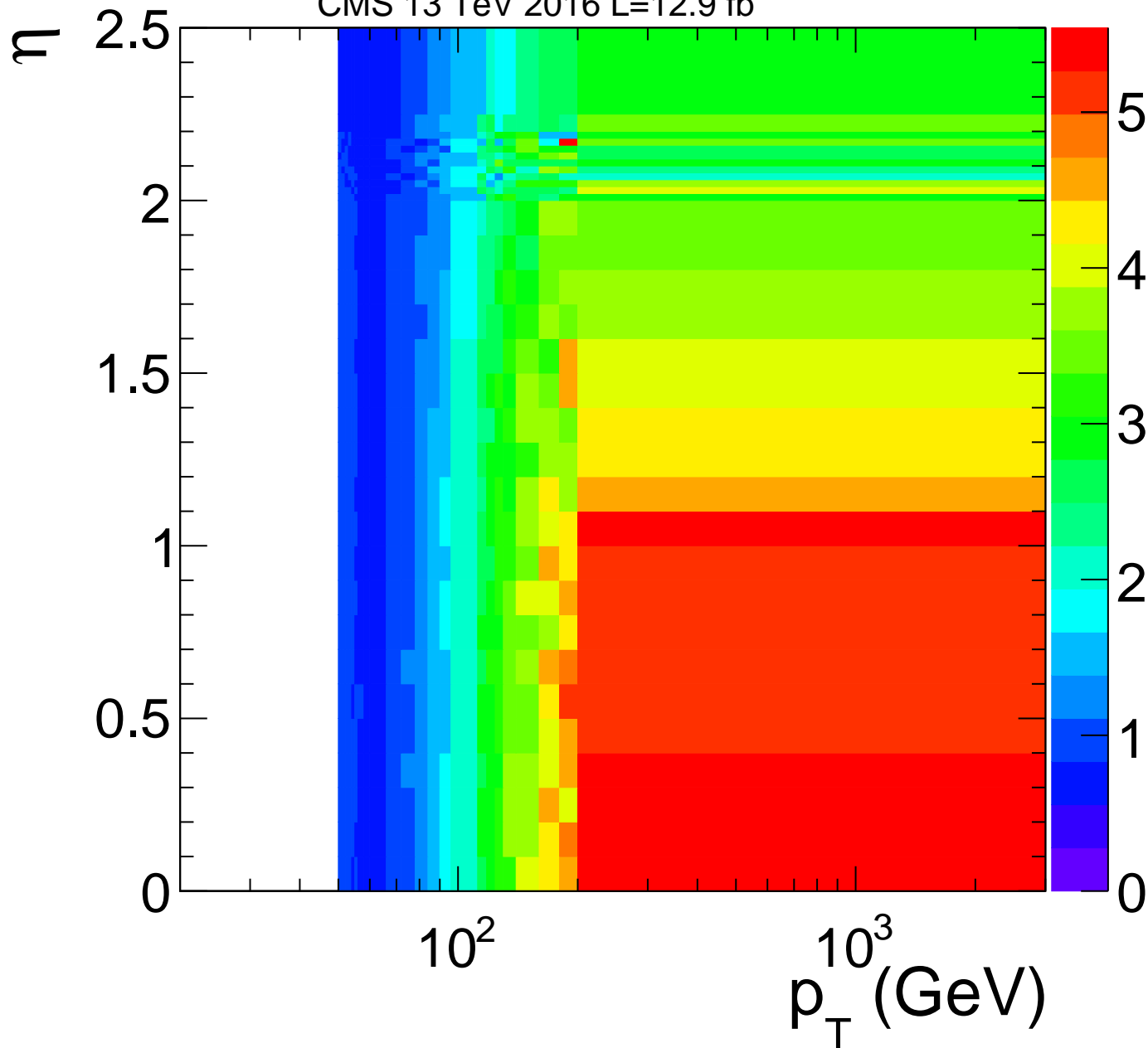
# htrg\_l1\_l1pl2f\_norm\_vs\_l1p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



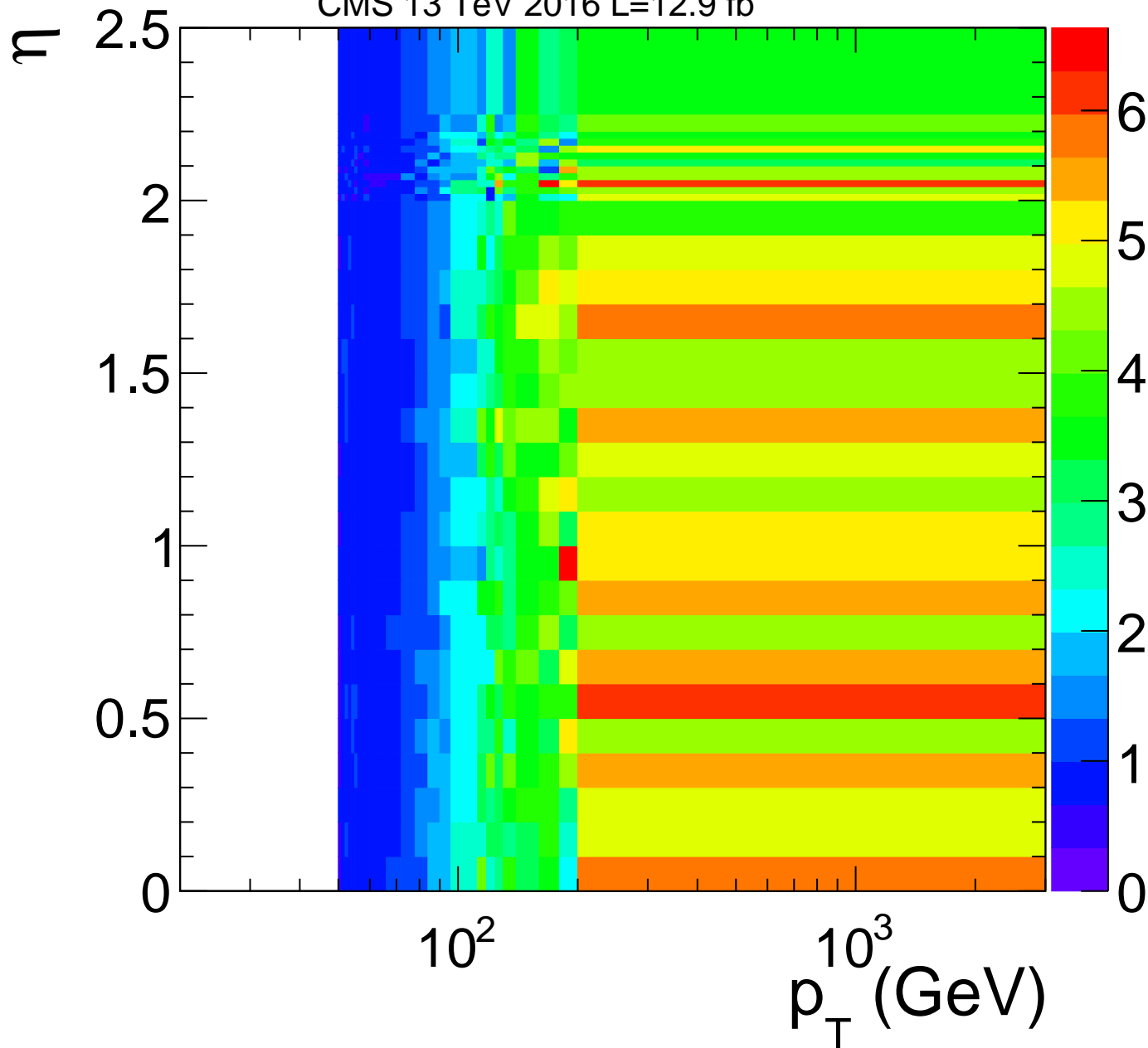
# htrg\_l1\_l1pl2p\_norm\_vs\_l1p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



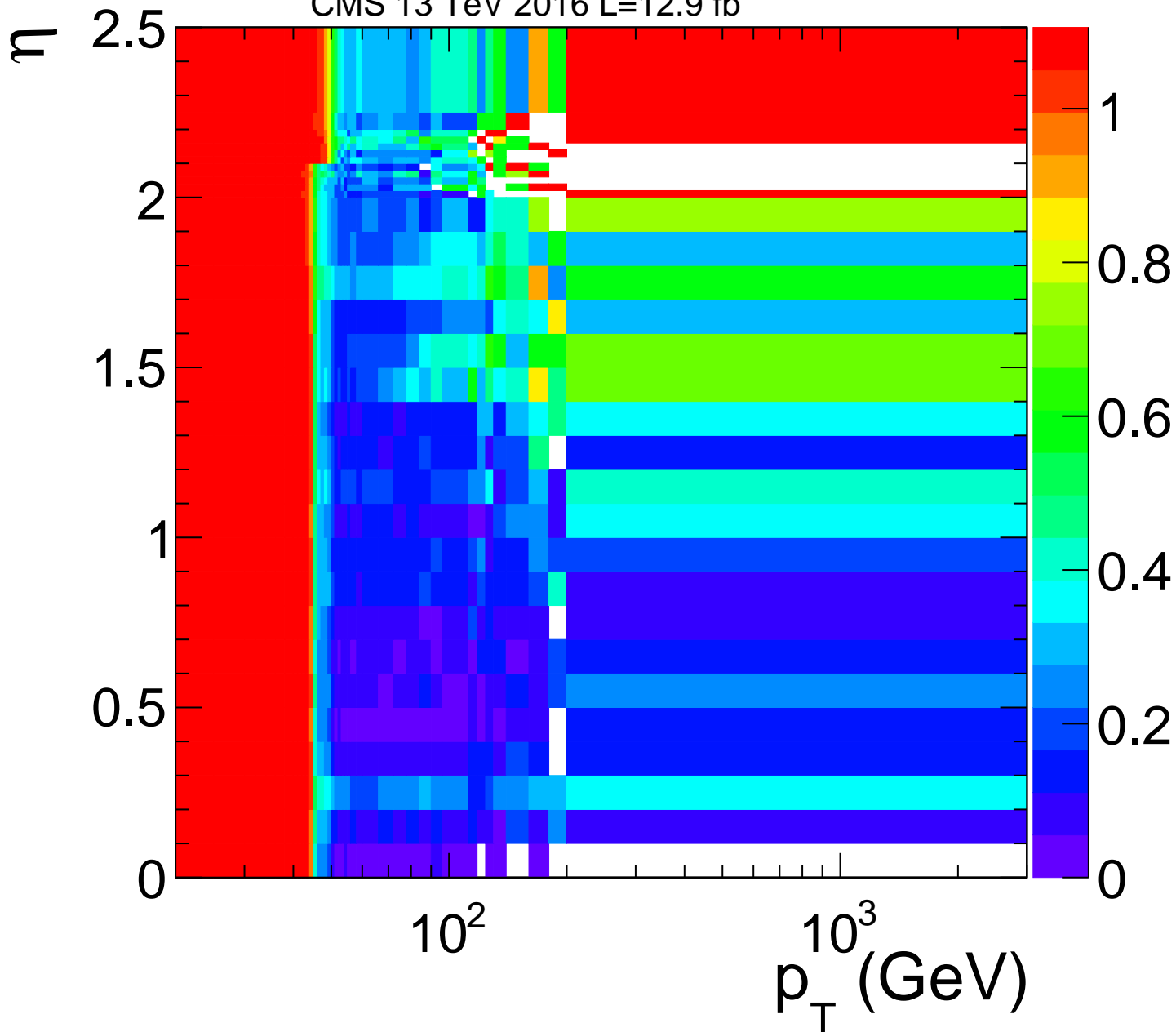
# htrg\_l1\_l1fl2p\_norm\_vs\_l1f

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_l2\_l1pl2f\_norm\_vs\_l1p

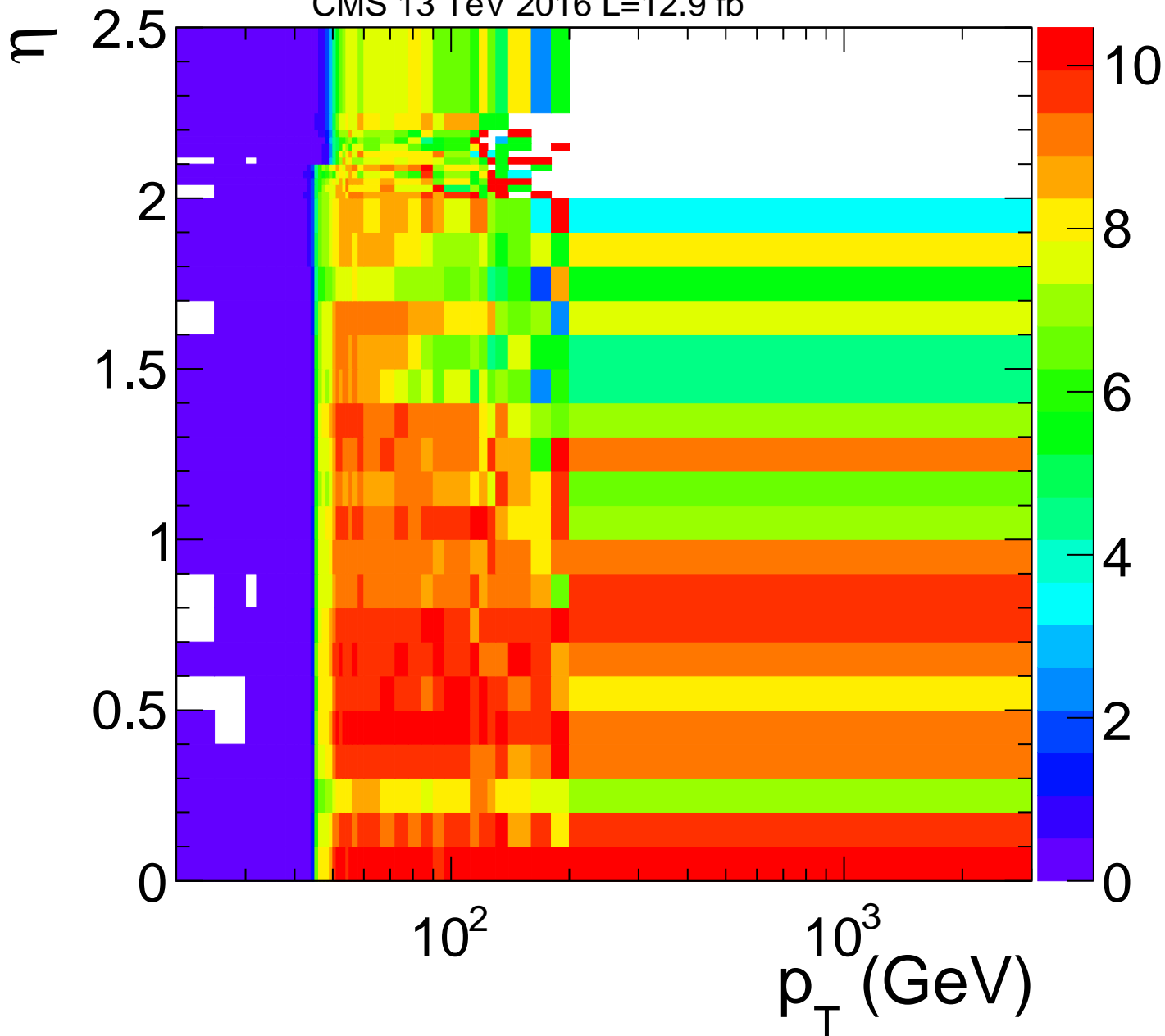
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





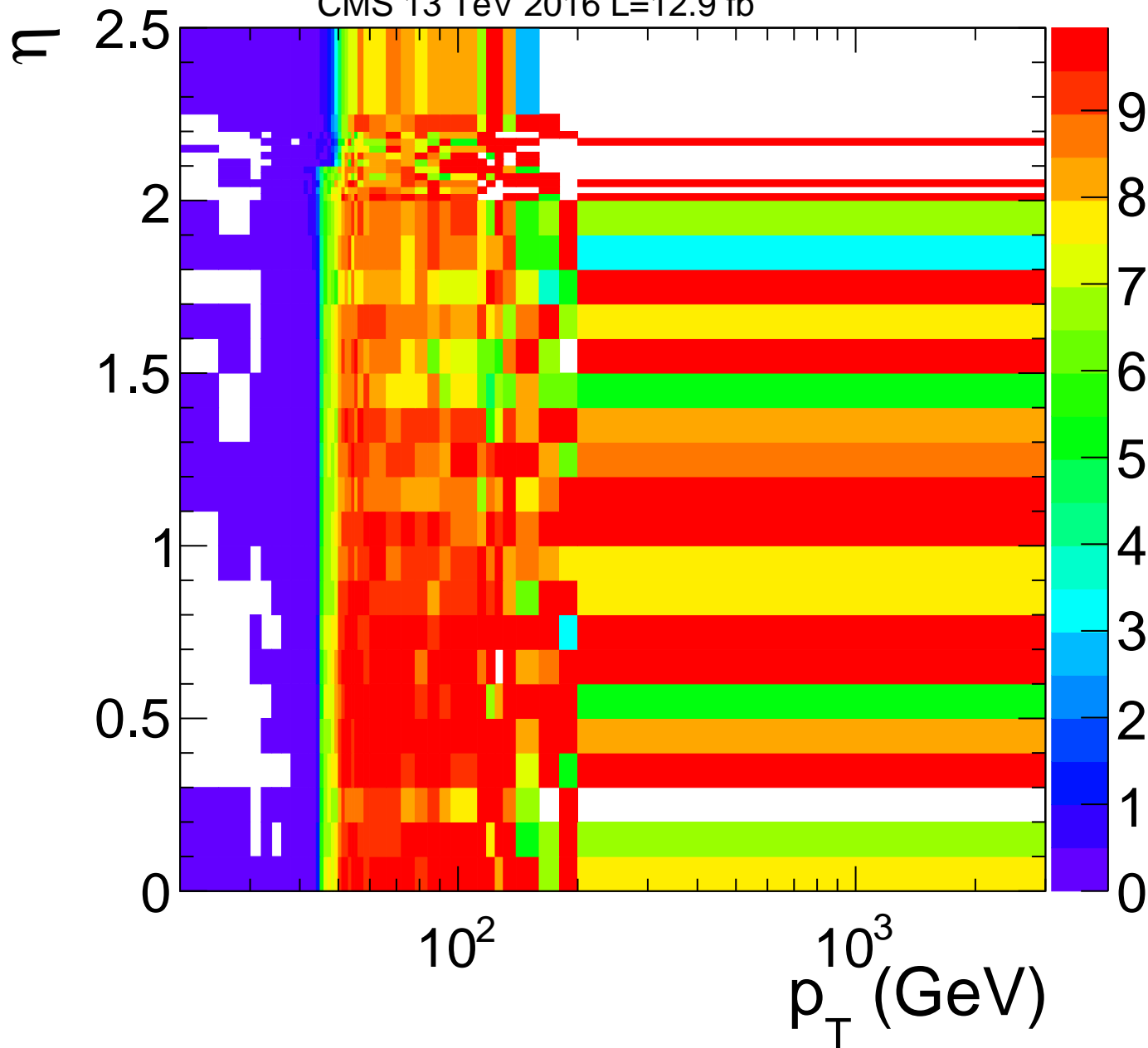
# htrg\_l2\_l1pl2p\_norm\_vs\_l1p

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



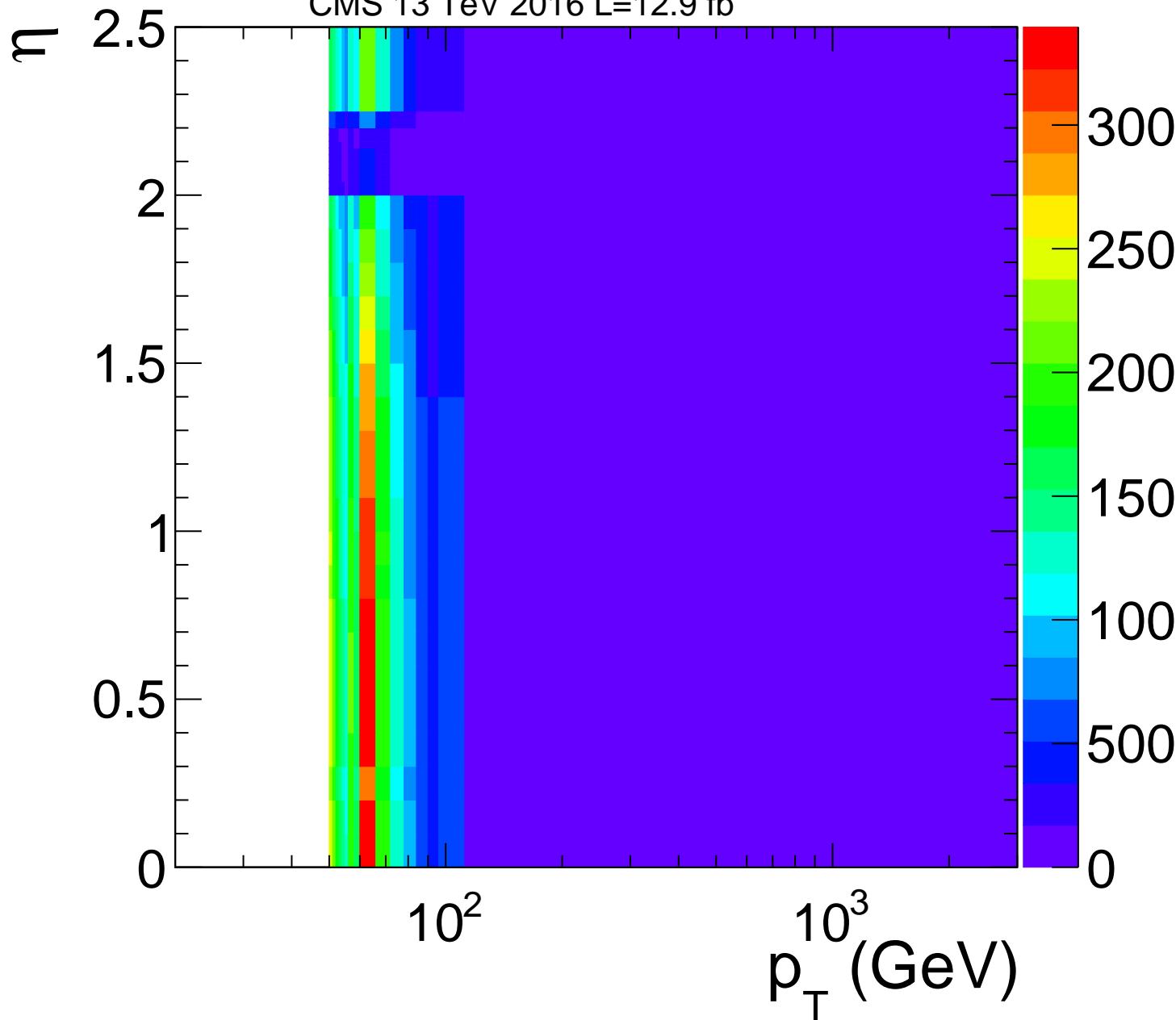
# htrg\_l2\_l1fl2p\_norm\_vs\_l1f

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



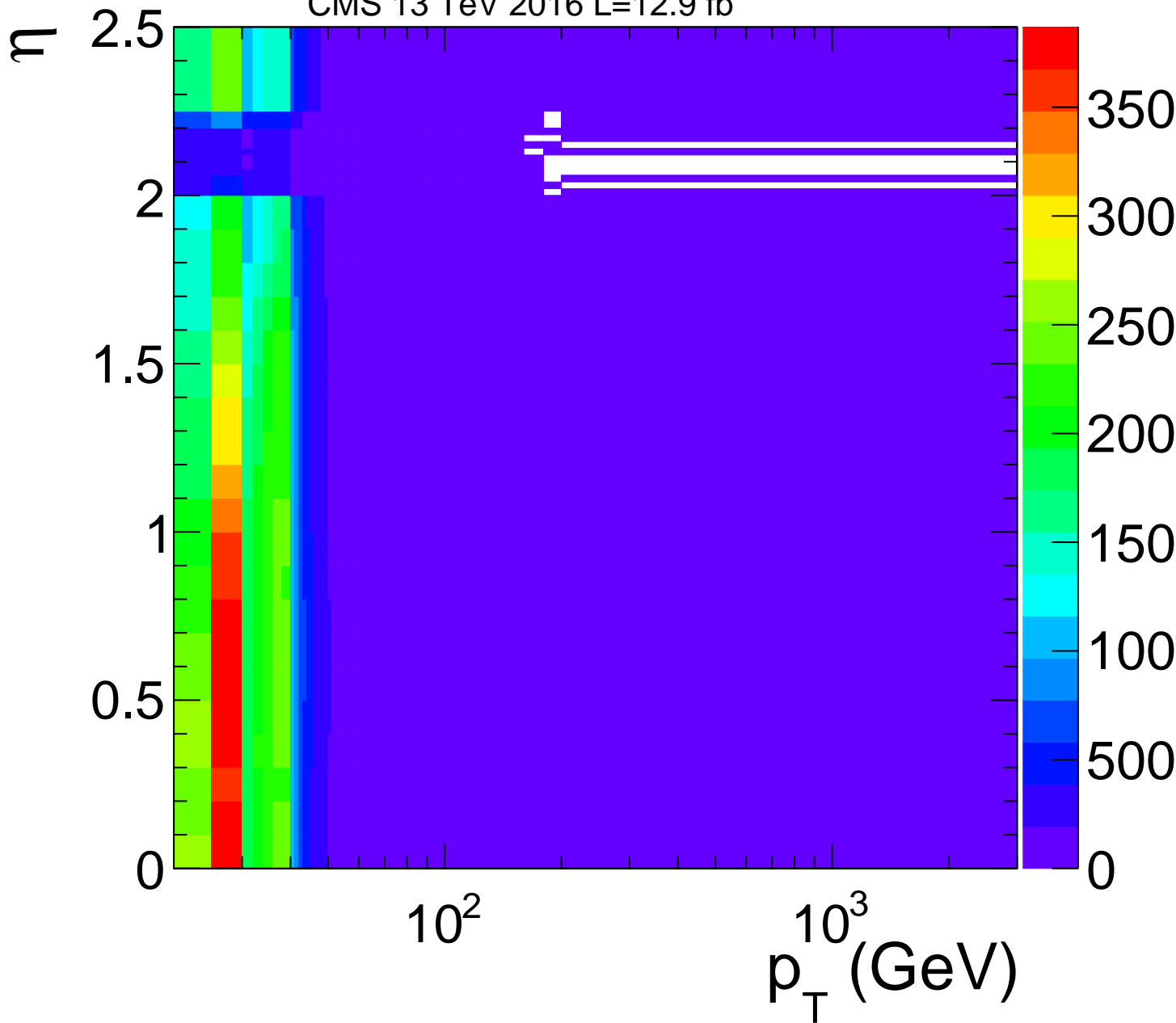
htrg\_l1\_base

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



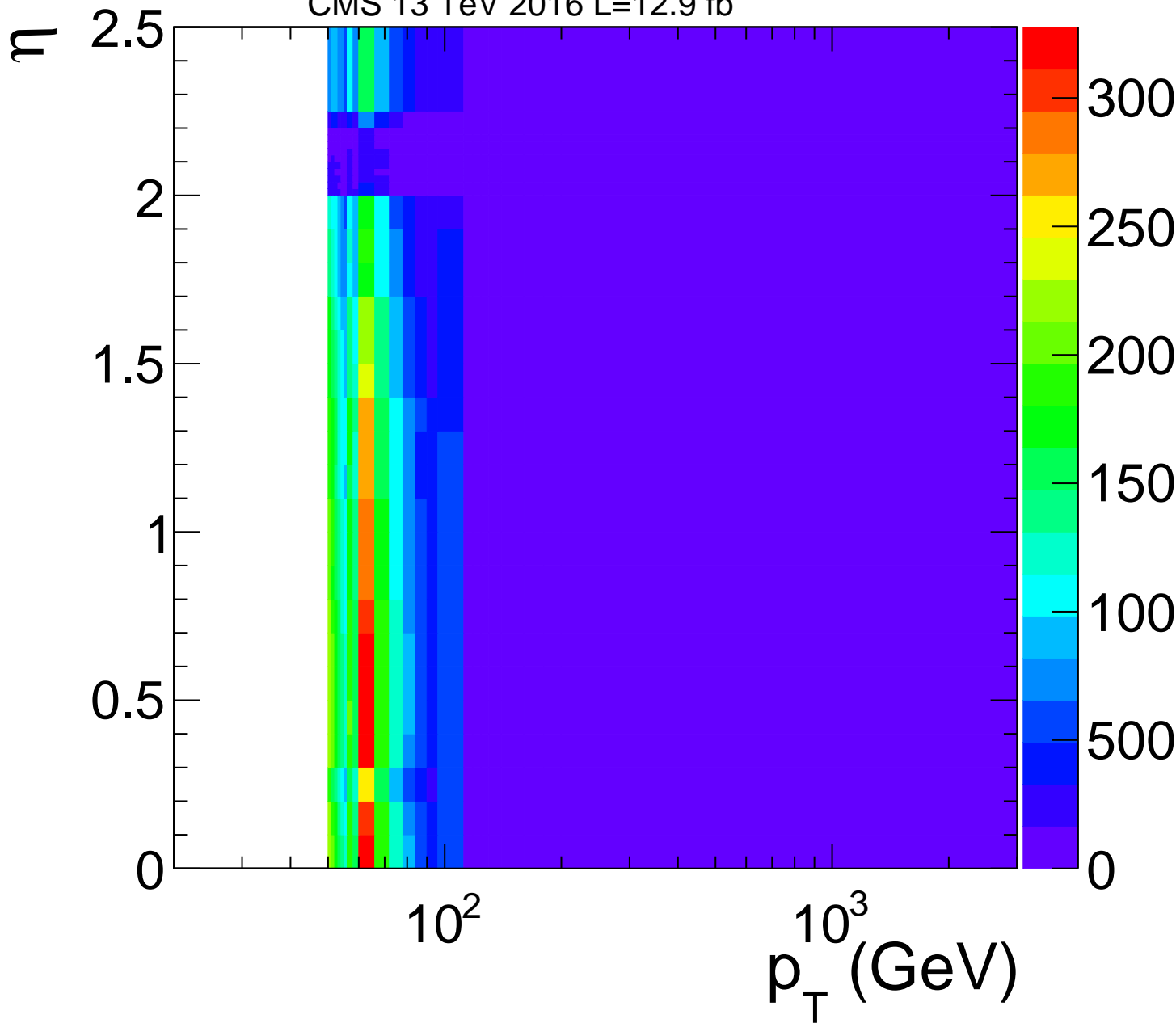
# htrg\_l1\_base

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



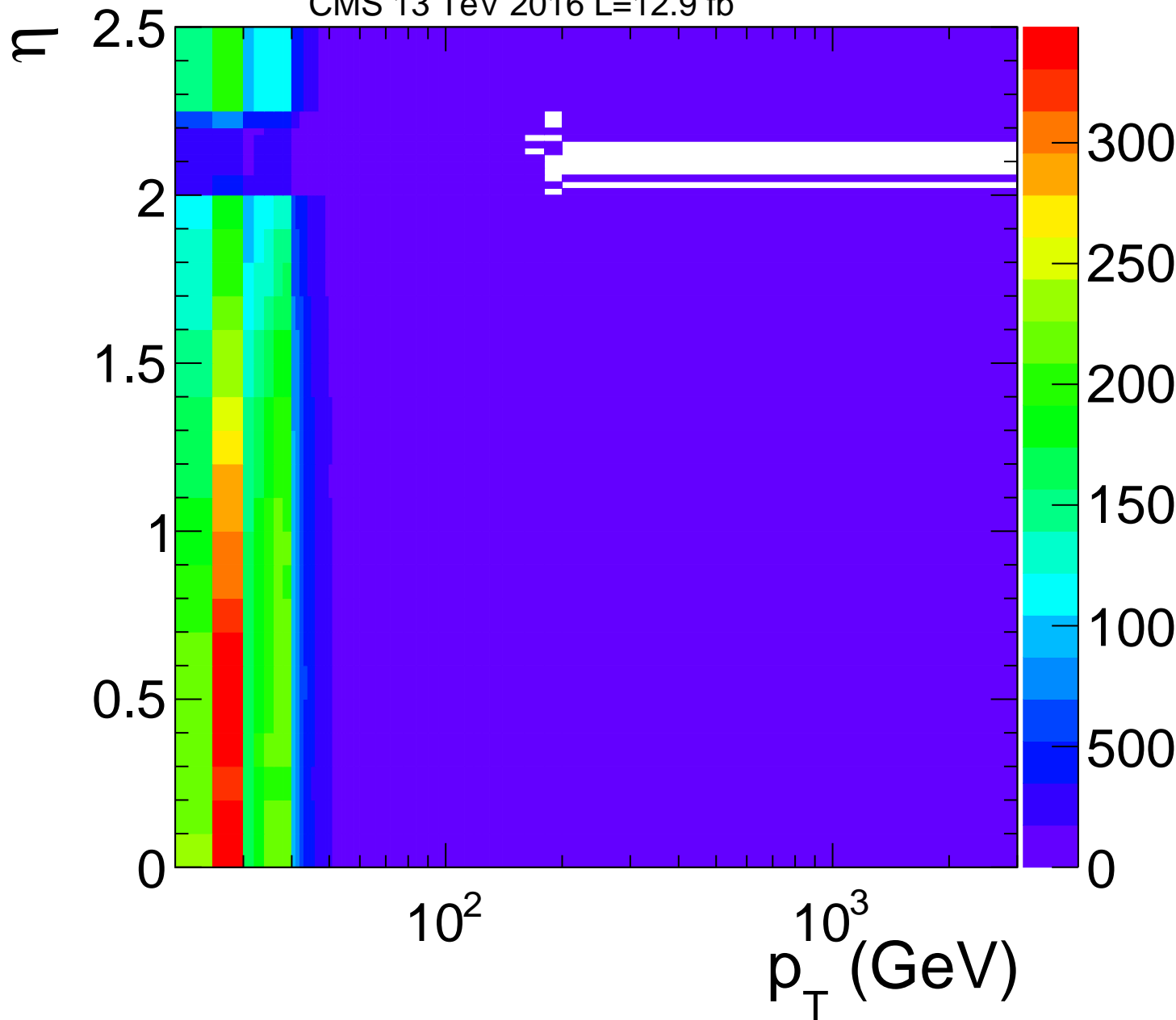
htrg\_l1\_pass

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



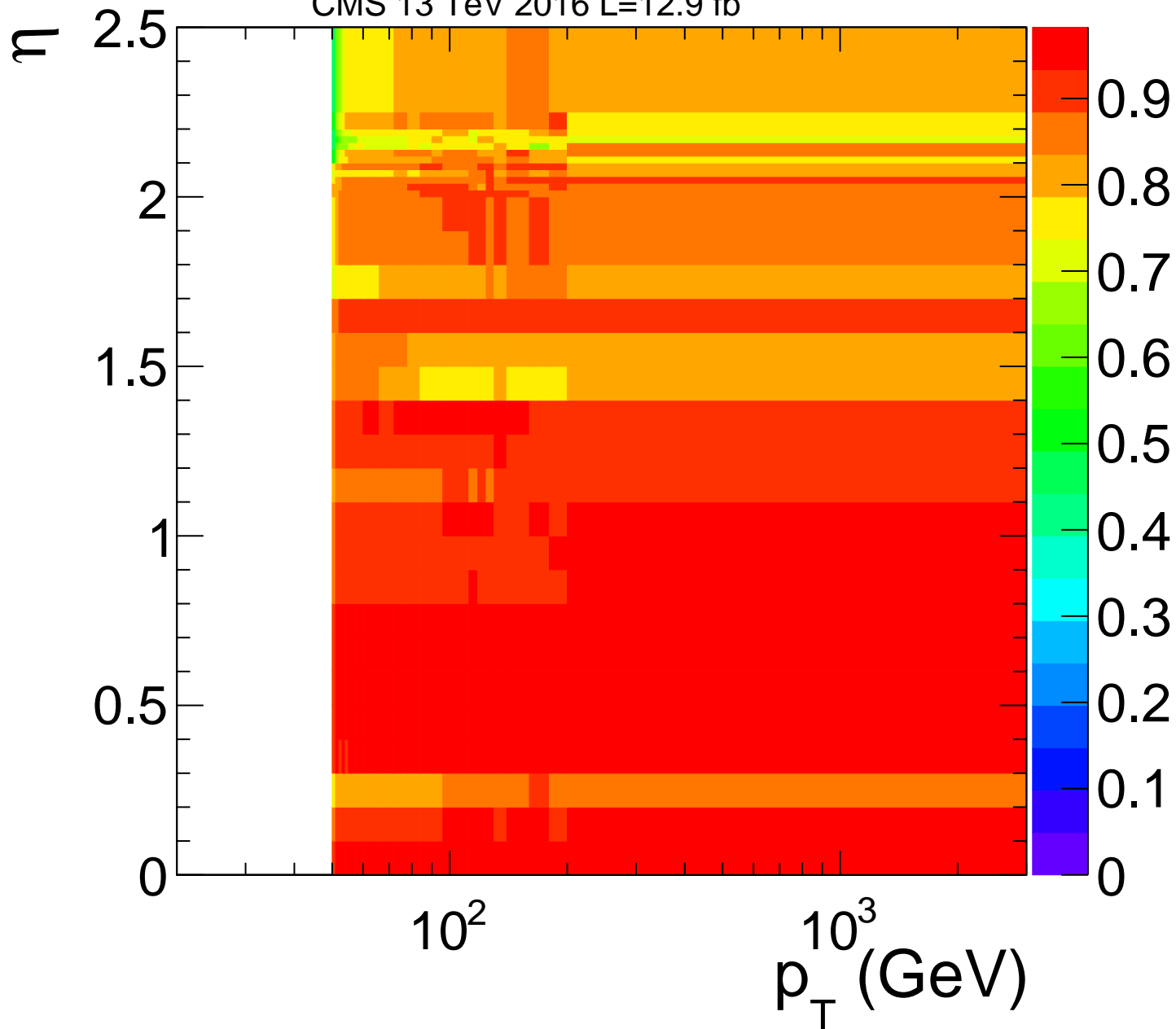
# htrg\_l1\_pass

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



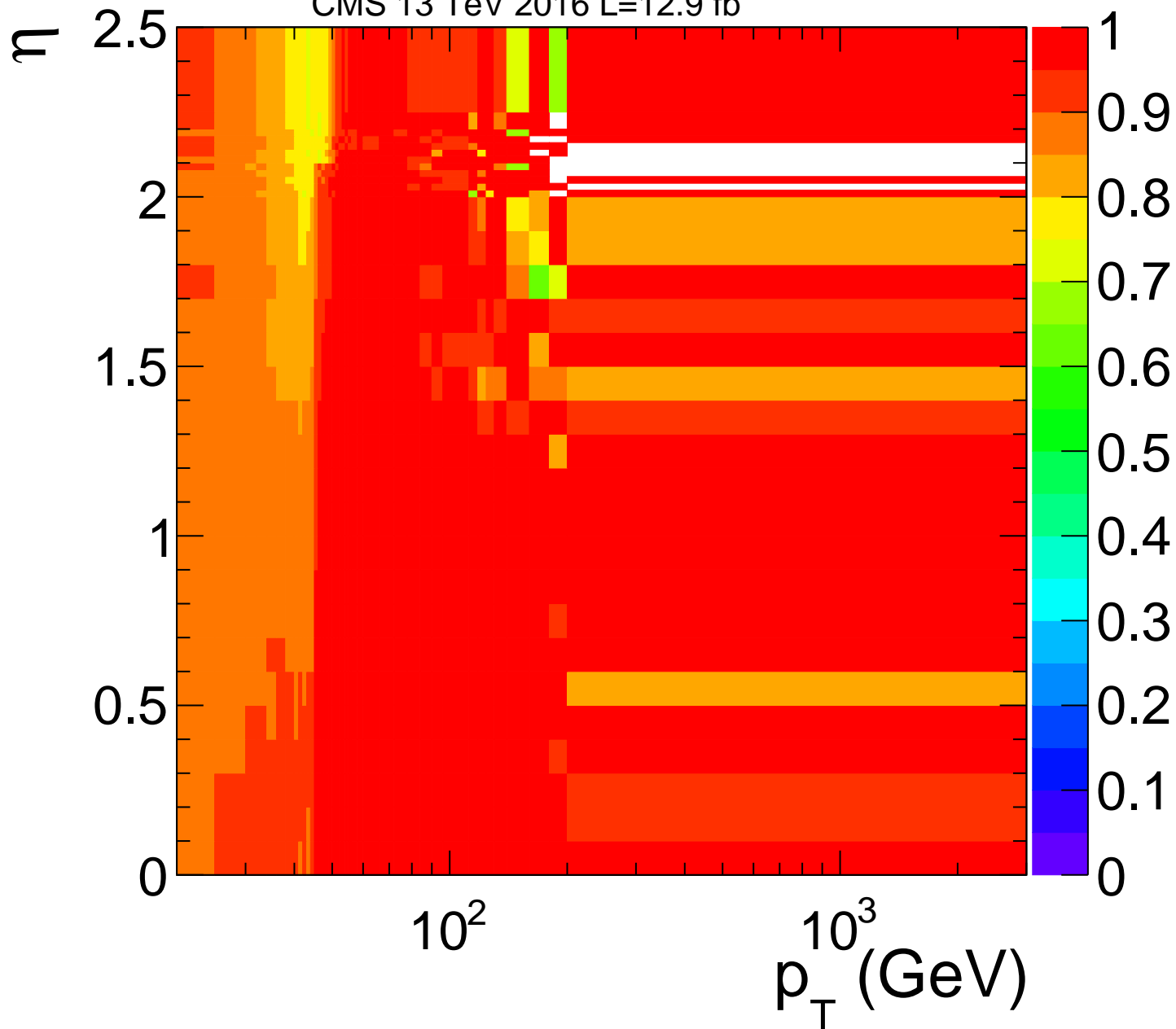
# htrg\_eff\_l1\_trig

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_eff\_l2\_trig

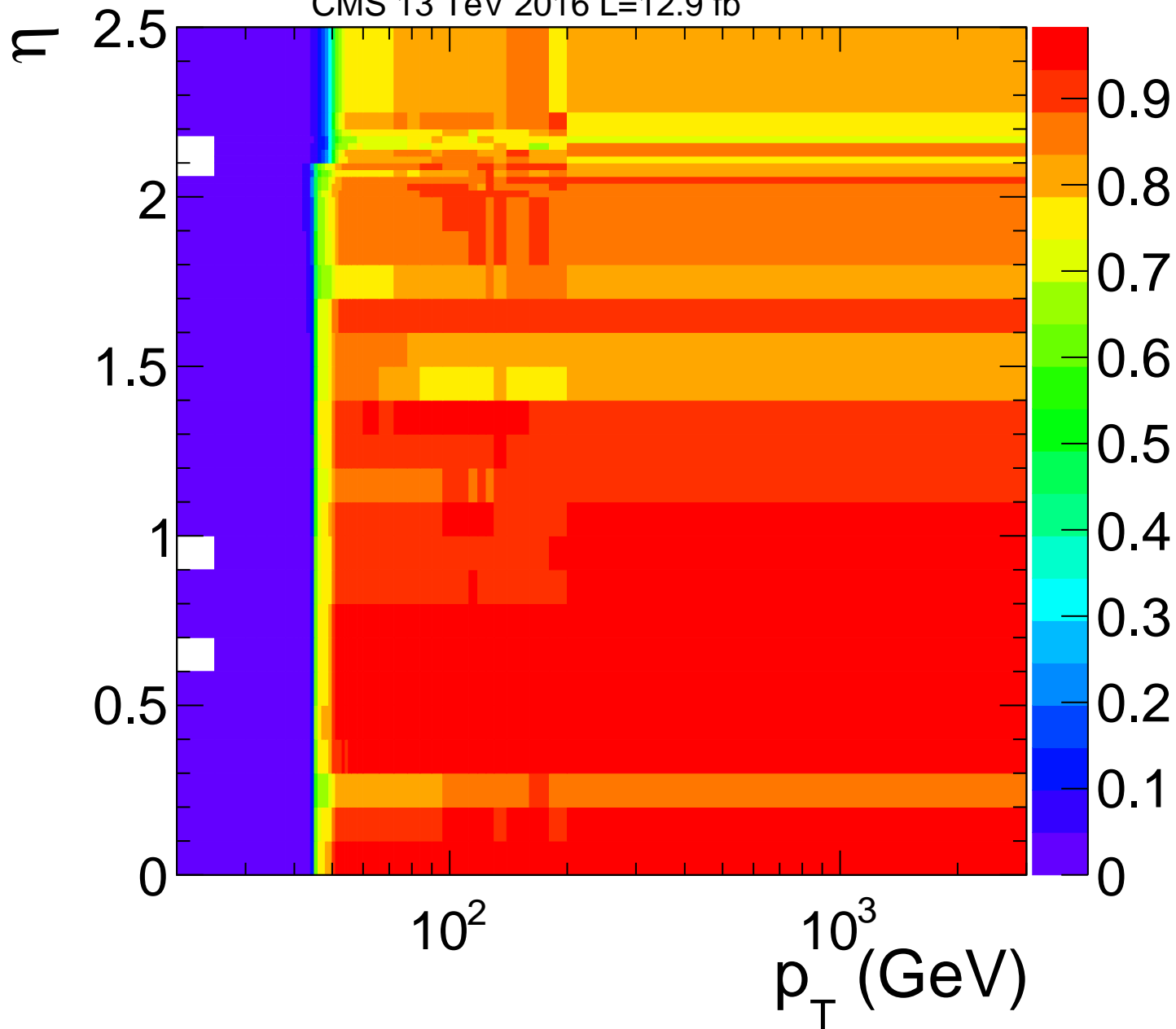
CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>





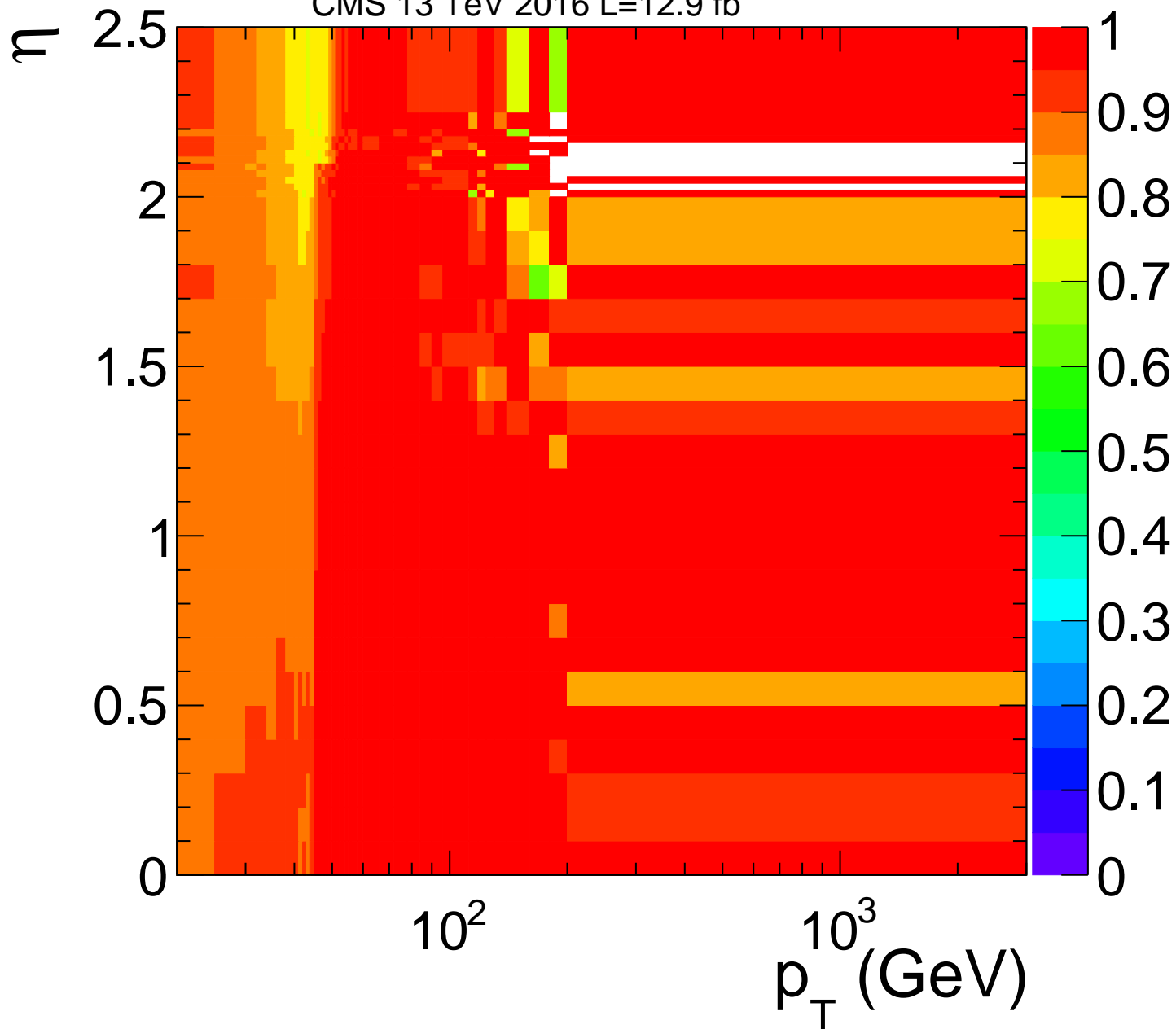
# htrg\_eff\_l1\_test

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



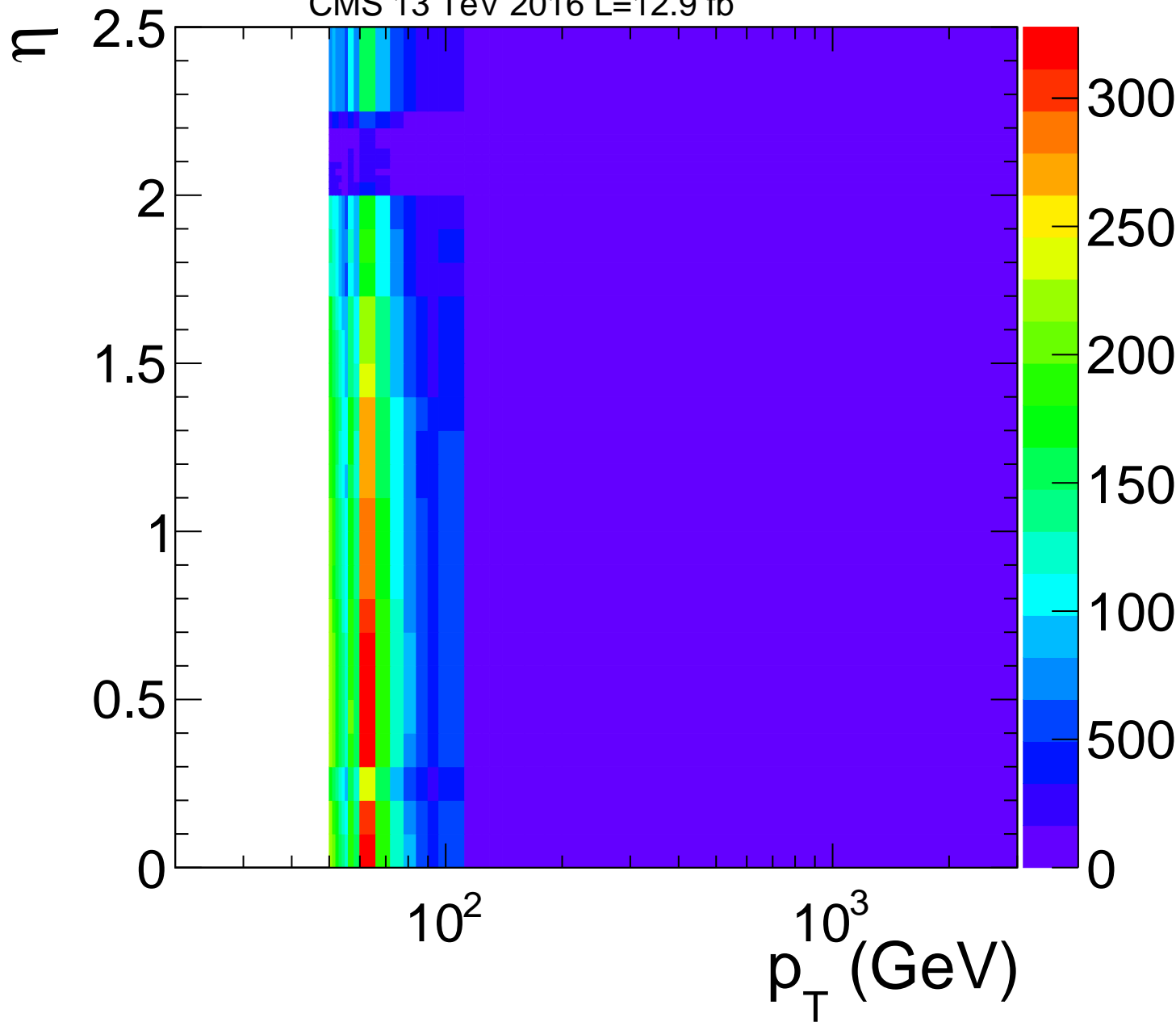
# htrg\_eff\_l1\_test

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



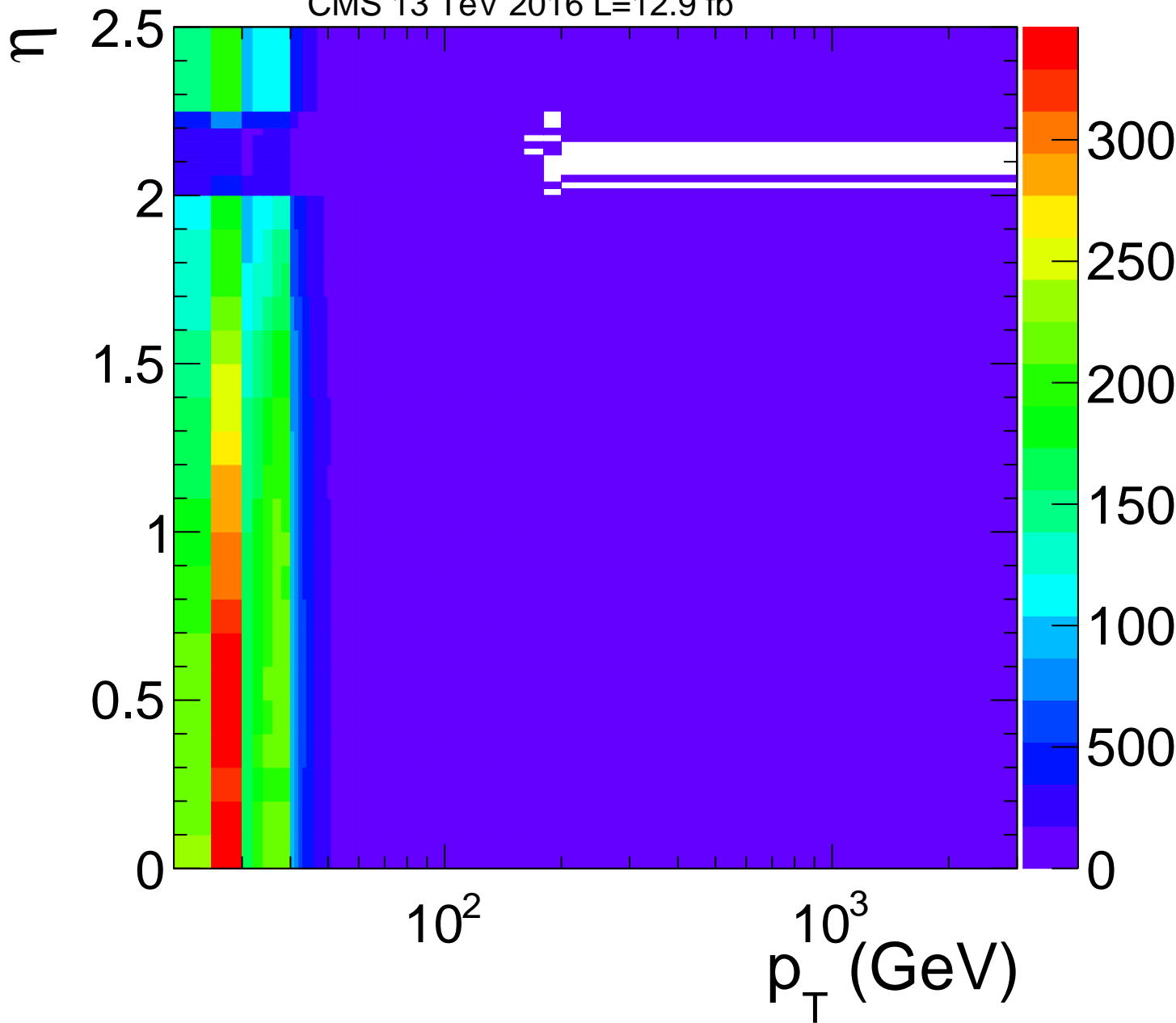
# htrg\_l1\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



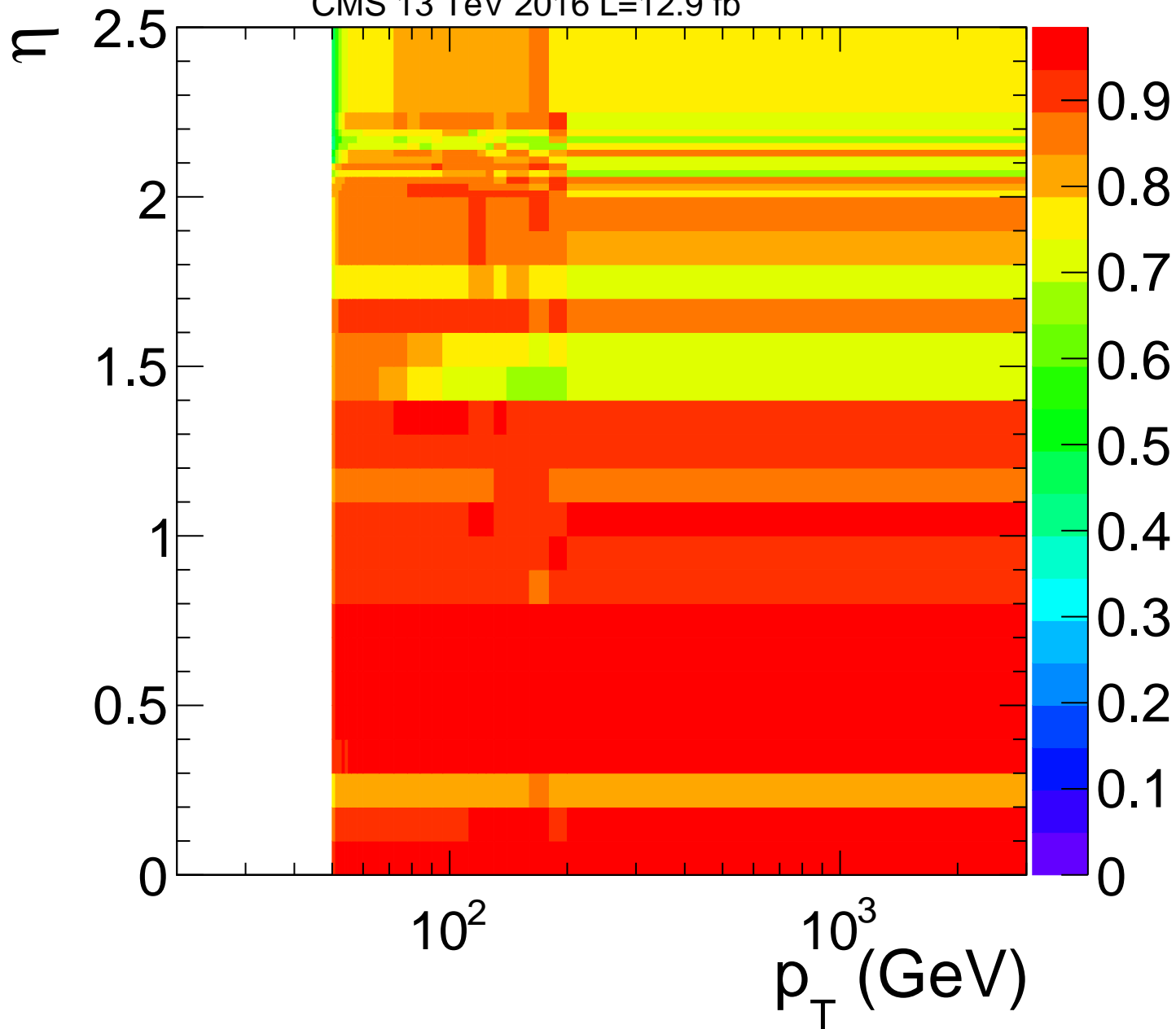
# htrg\_l1\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_eff\_l1\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>



# htrg\_eff\_l2\_tgsf

CMS 13 TeV 2016 L=12.9 fb<sup>-1</sup>

