

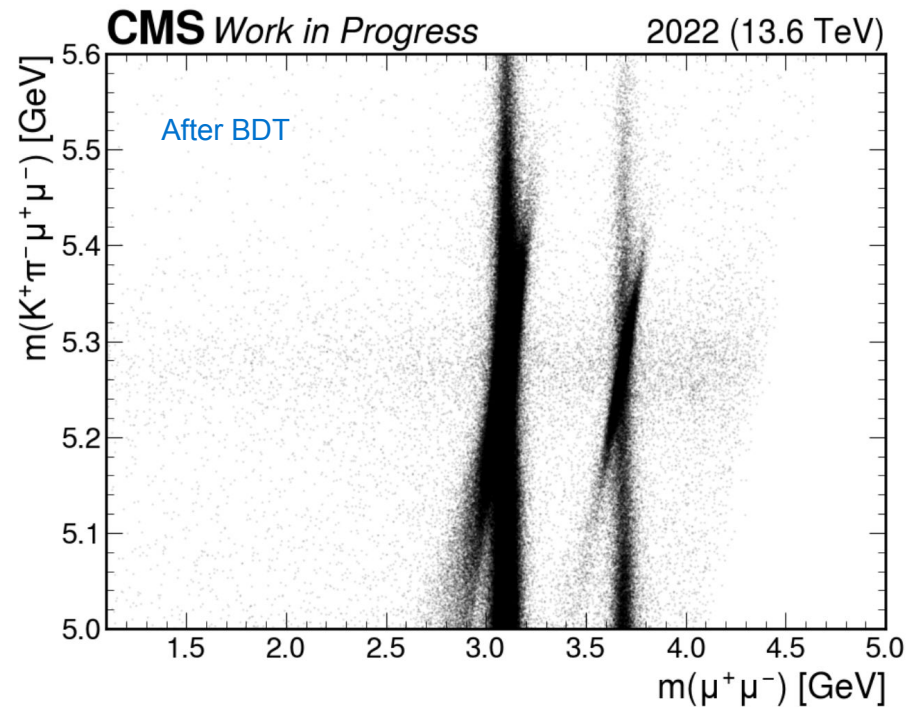
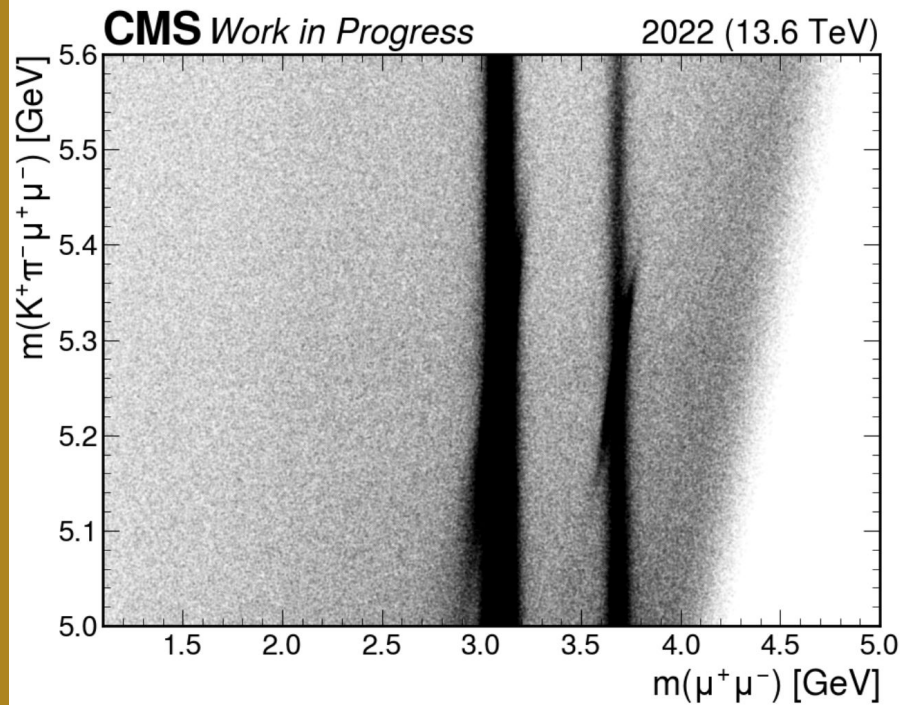


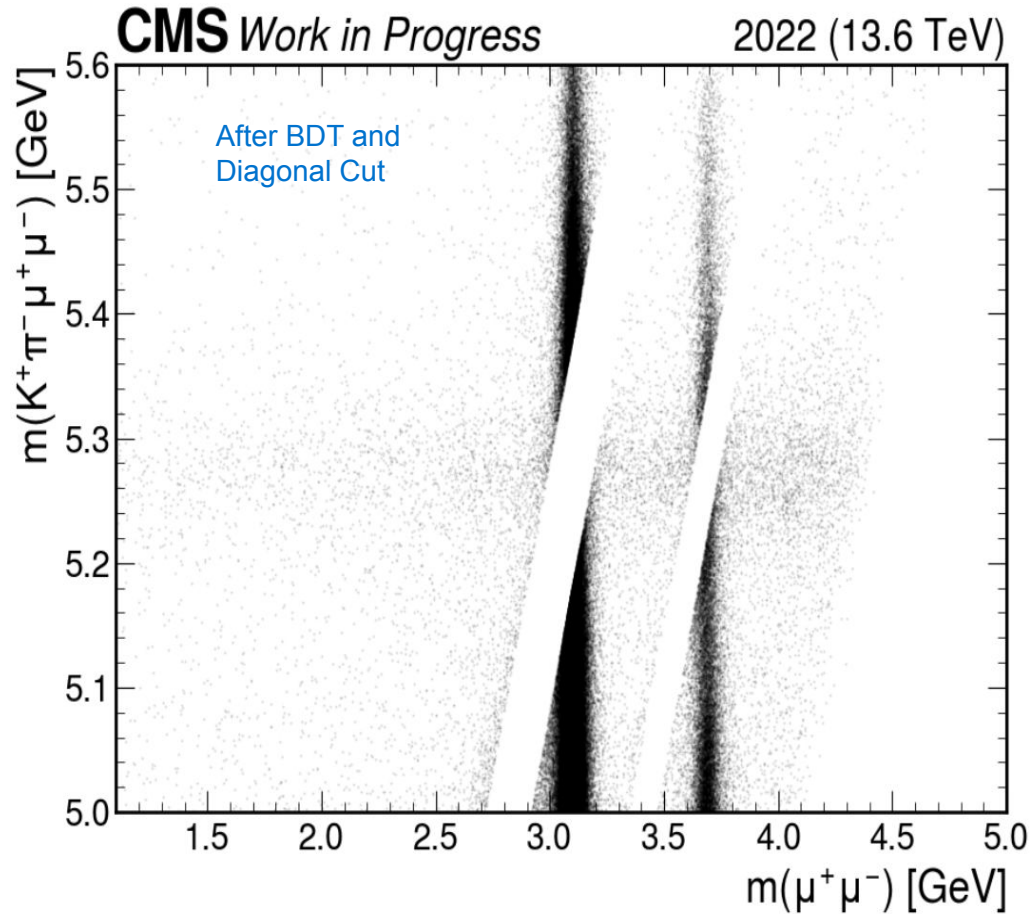
Flavour Anomalies: Bi-weekly



Aluno: Thiago de Andrade Rangel Monteiro

21 de março de 2025





$$\text{cut}_1 = (\text{bdt_score} > 0.97)$$

$$\text{cut}_2 = |(M_{K\pi} - 5.279) - (M_{\ell\ell} - 3.0969)| > 0.1$$

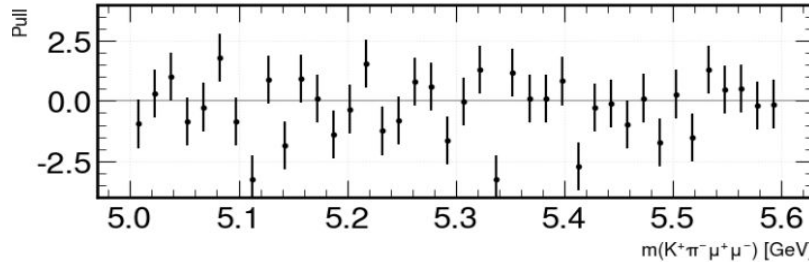
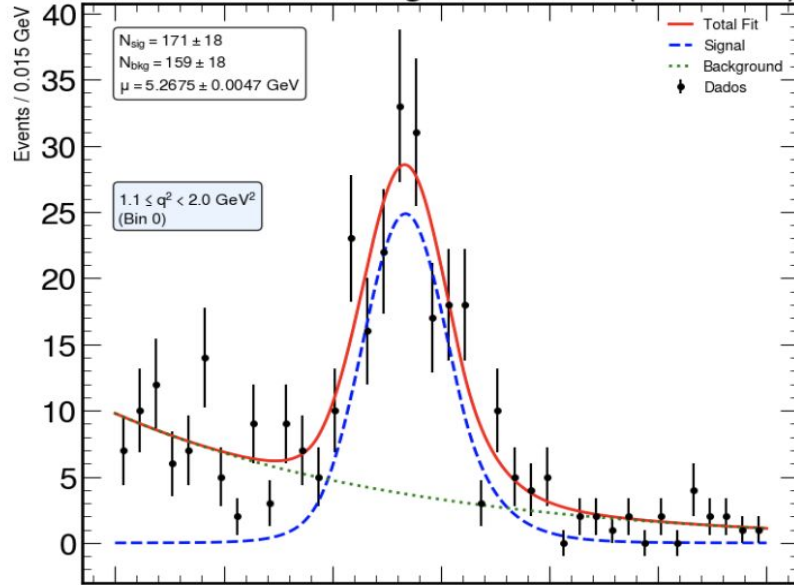
$$\text{cut}_{J/\psi} = \text{cut}_1 \wedge \text{cut}_2$$

$$\text{cut}_3 = (\text{bdt_score} > 0.97)$$

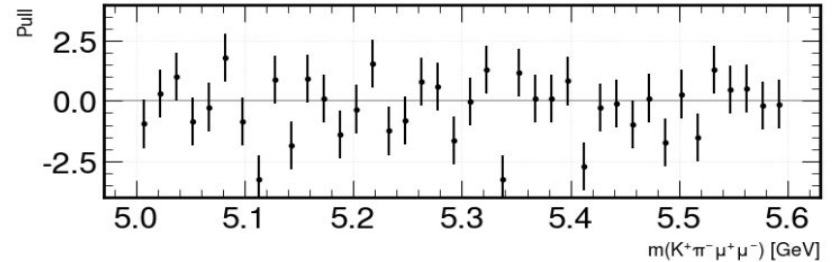
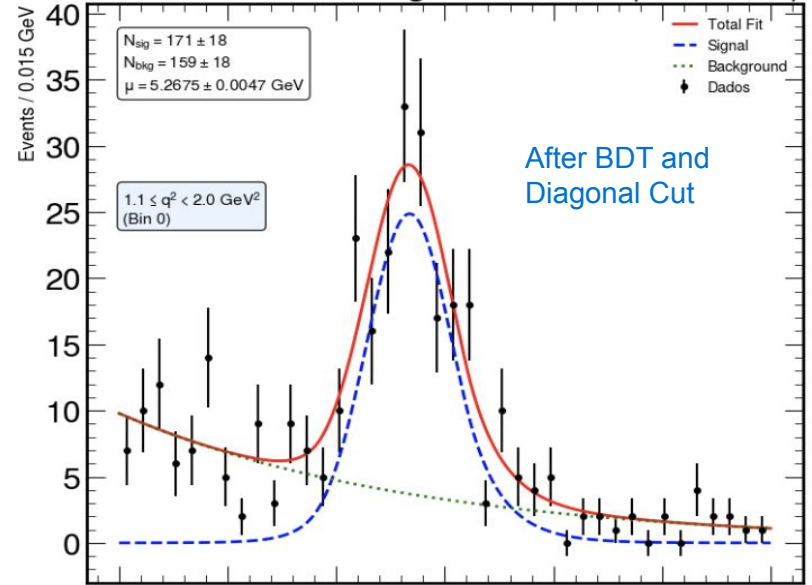
$$\text{cut}_4 = |(M_{K\pi} - 5.279) - (M_{\ell\ell} - 3.686)| > 0.06$$

$$\text{cut}_{\psi(2S)} = \text{cut}_3 \wedge \text{cut}_4$$

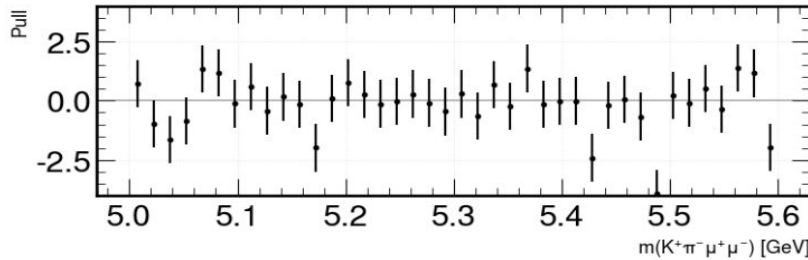
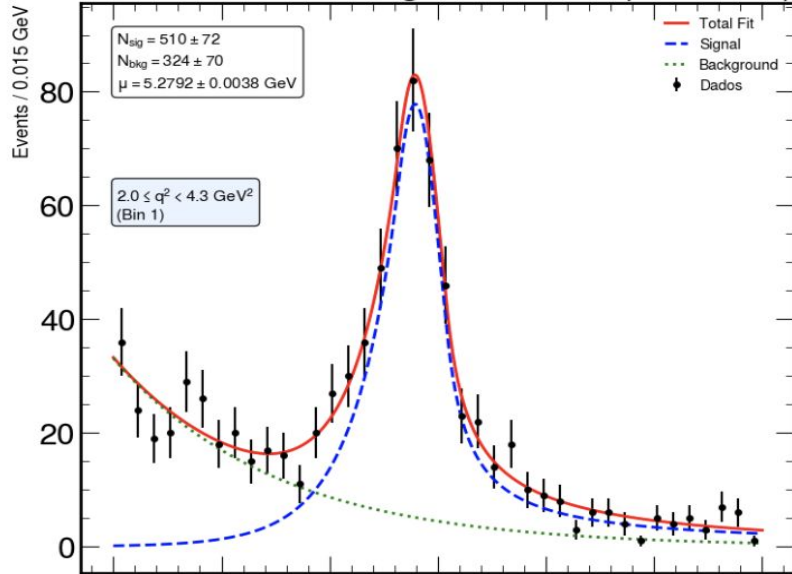
CMS Work in Progress (13.6 TeV)



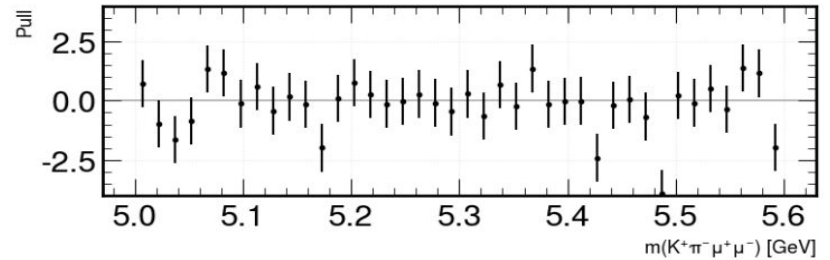
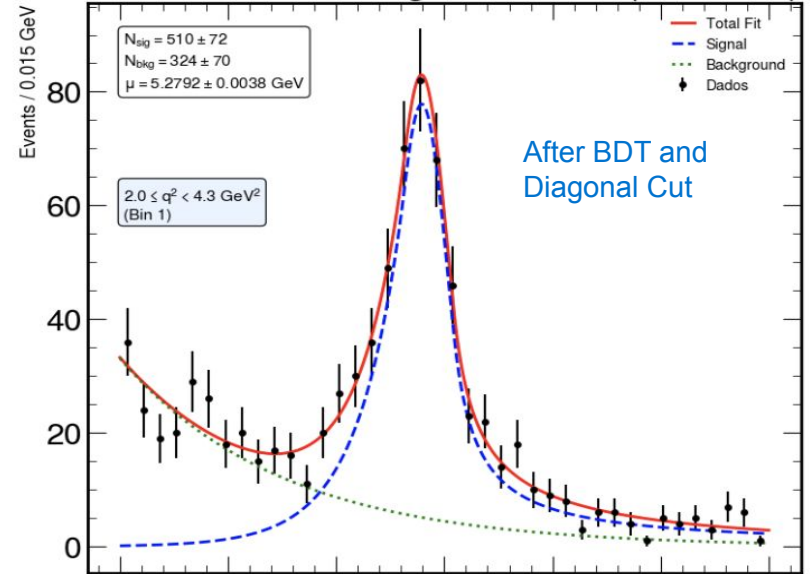
CMS Work in Progress (13.6 TeV)



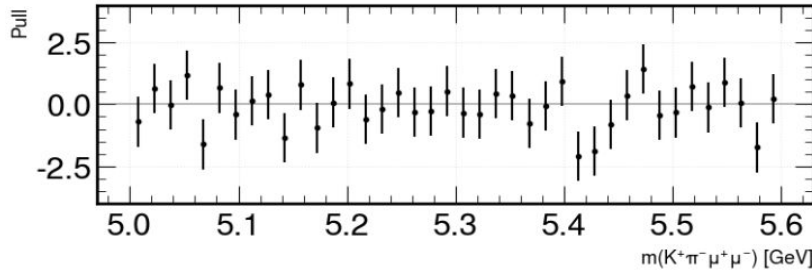
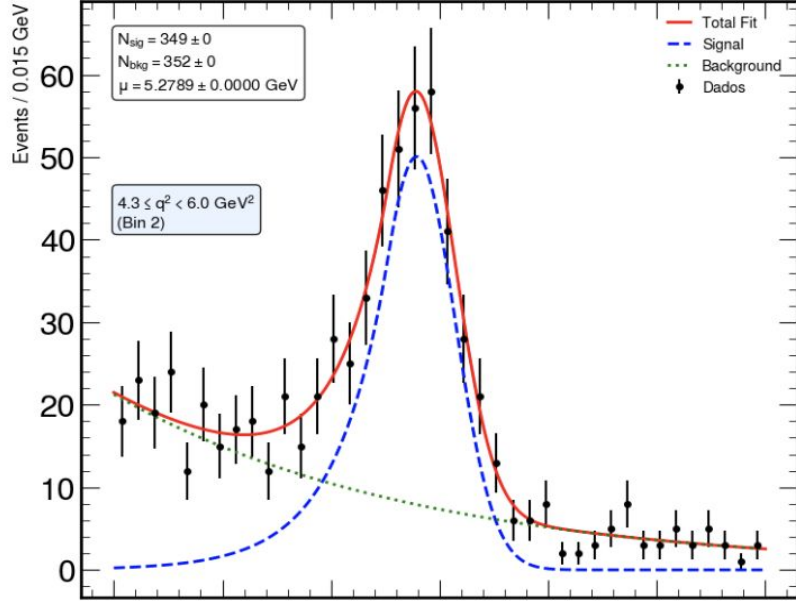
CMS Work in Progress (13.6 TeV)



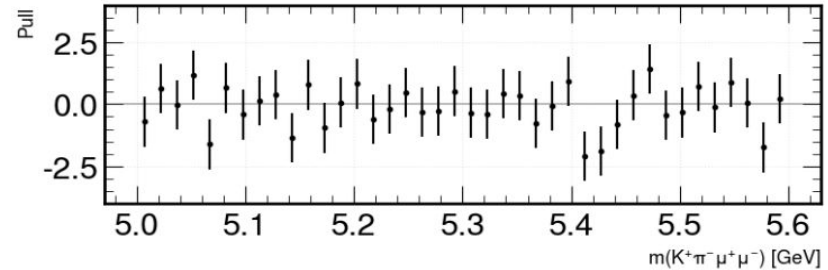
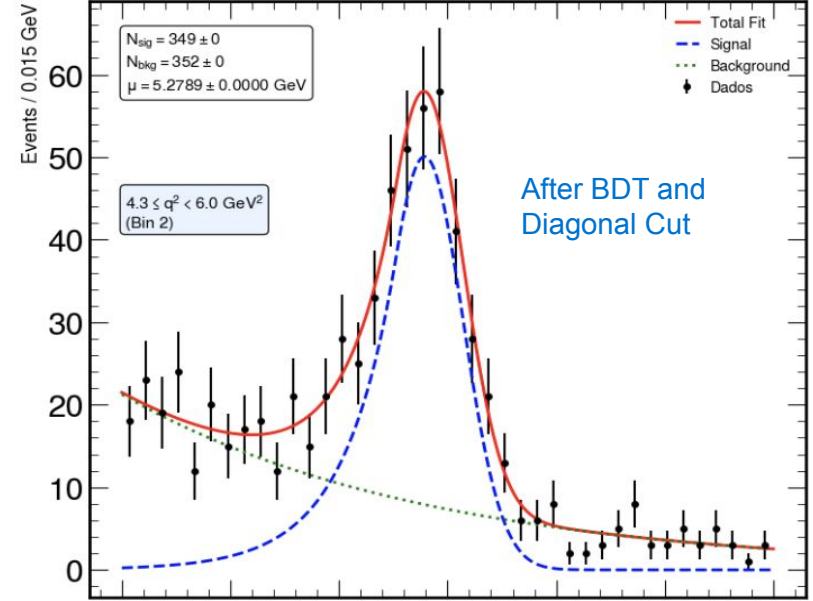
CMS Work in Progress (13.6 TeV)



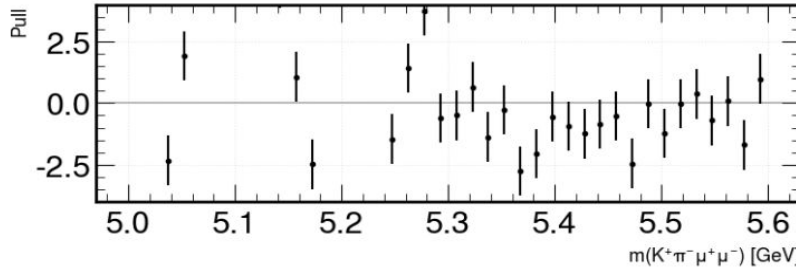
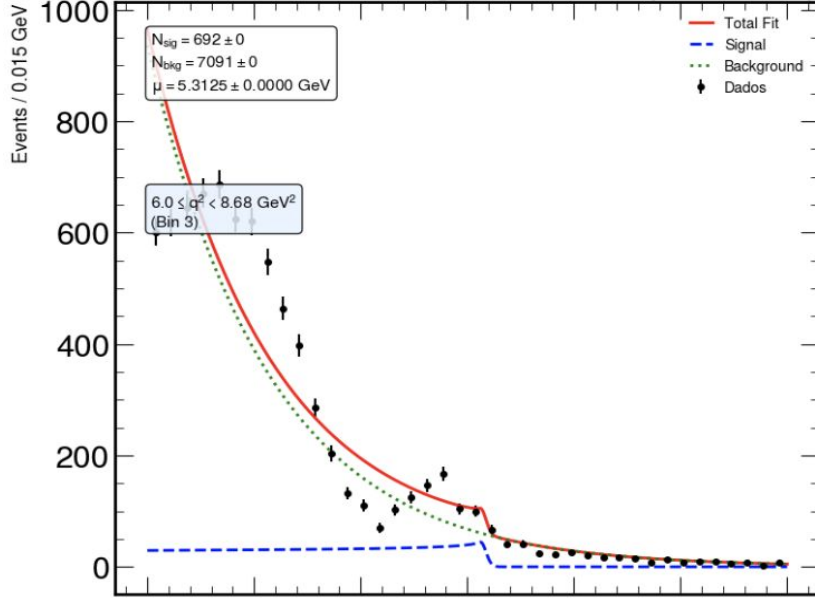
CMS Work in Progress (13.6 TeV)



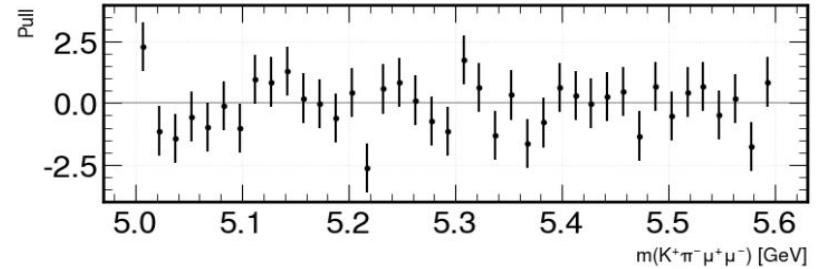
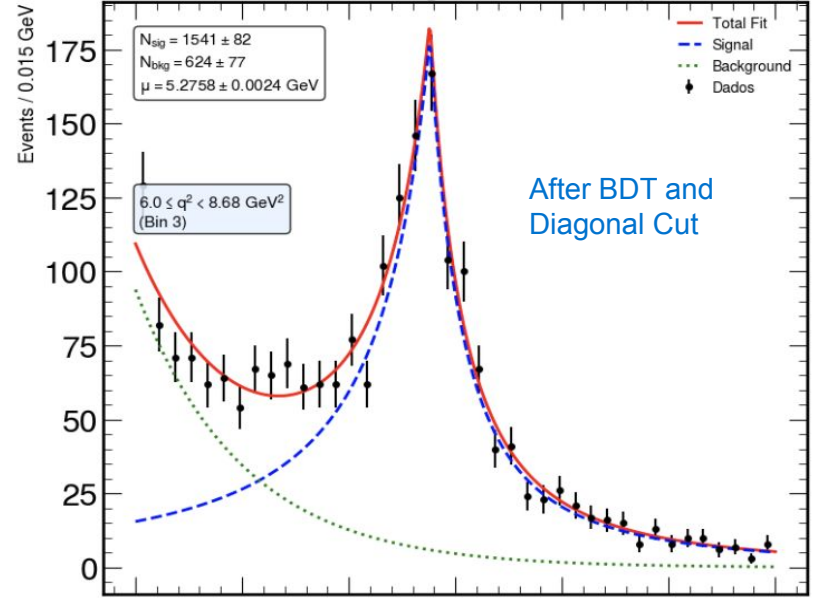
CMS Work in Progress (13.6 TeV)



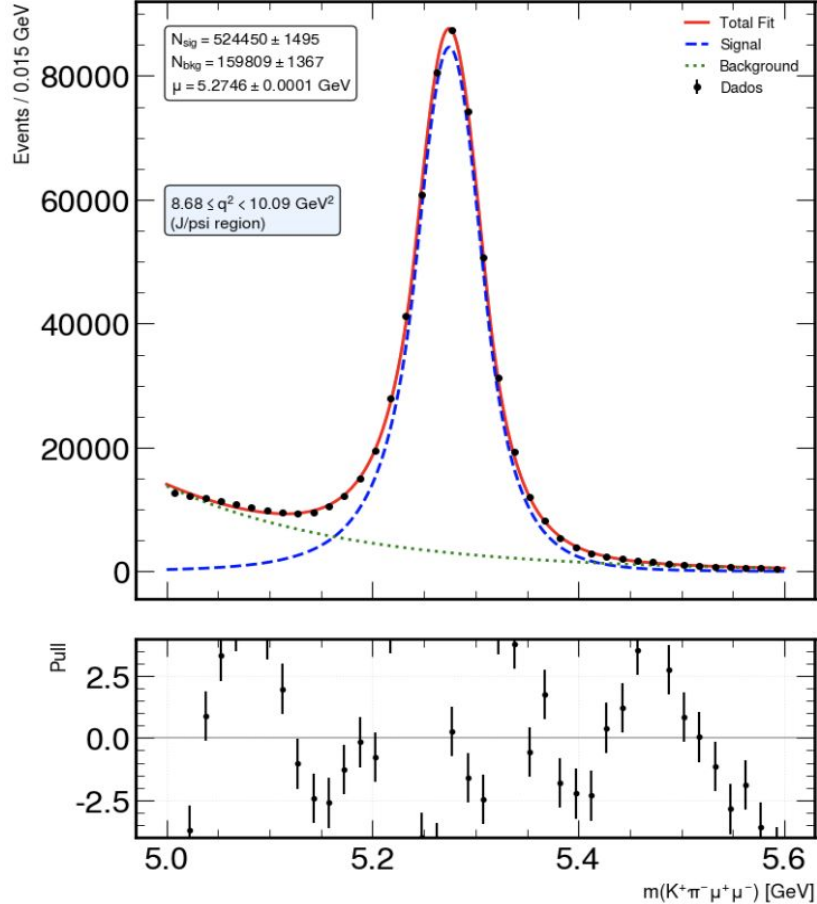
CMS Work in Progress (13.6 TeV)



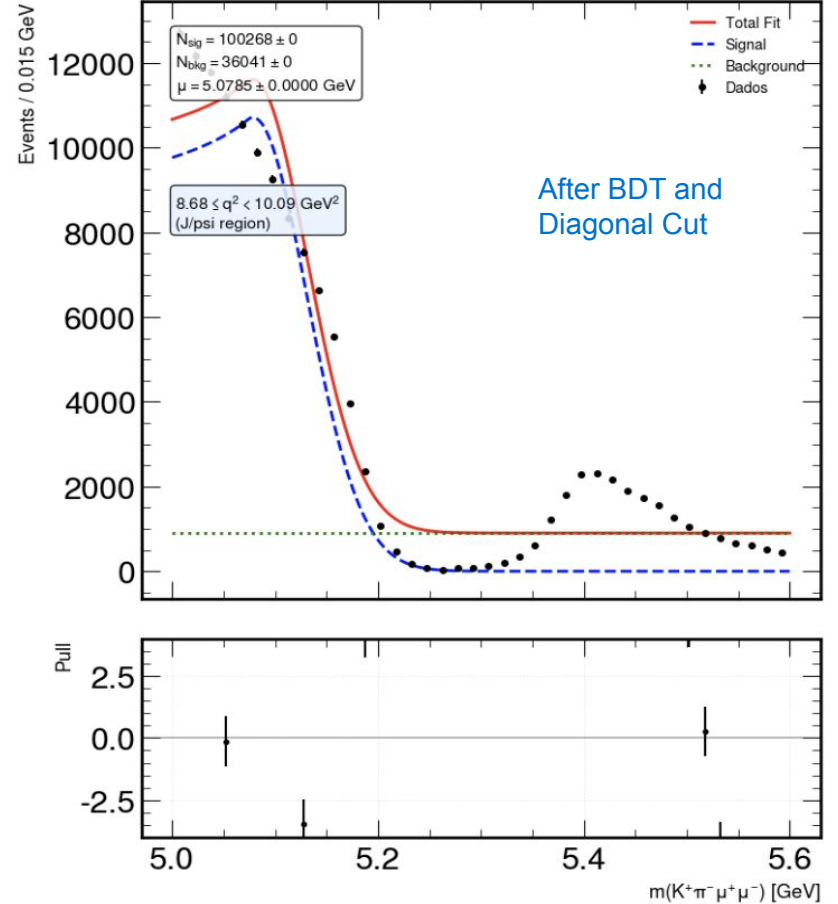
CMS Work in Progress (13.6 TeV)



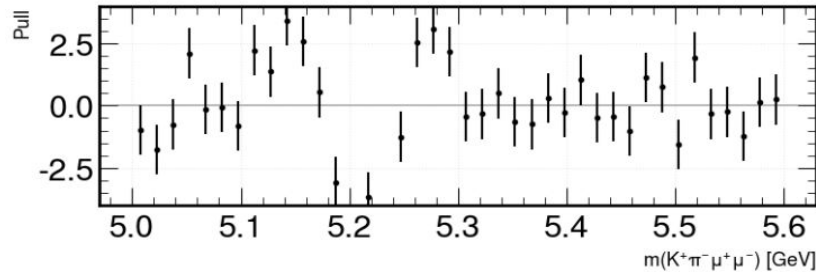
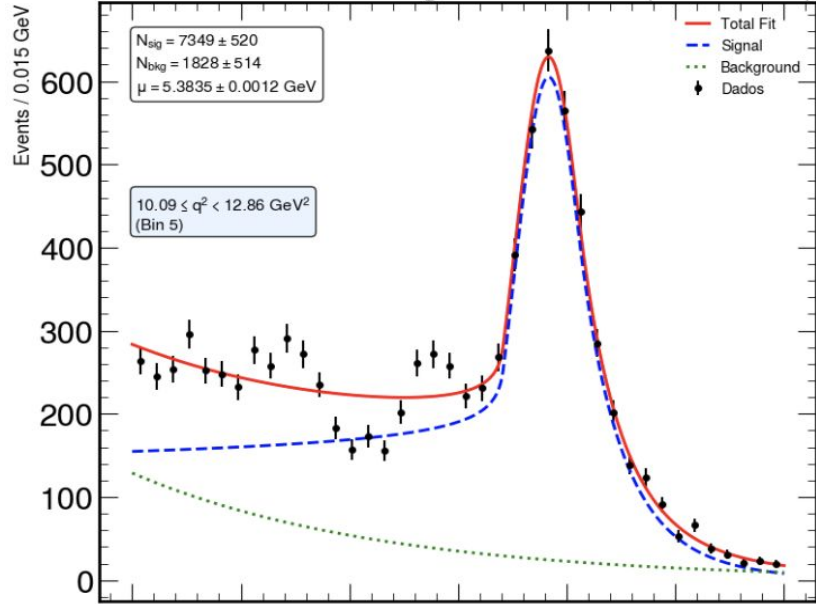
CMS Work in Progress (13.6 TeV)



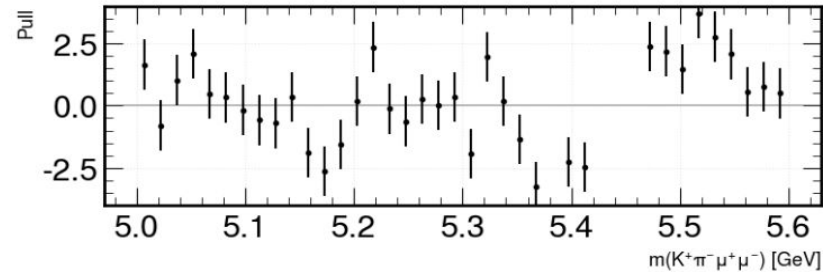
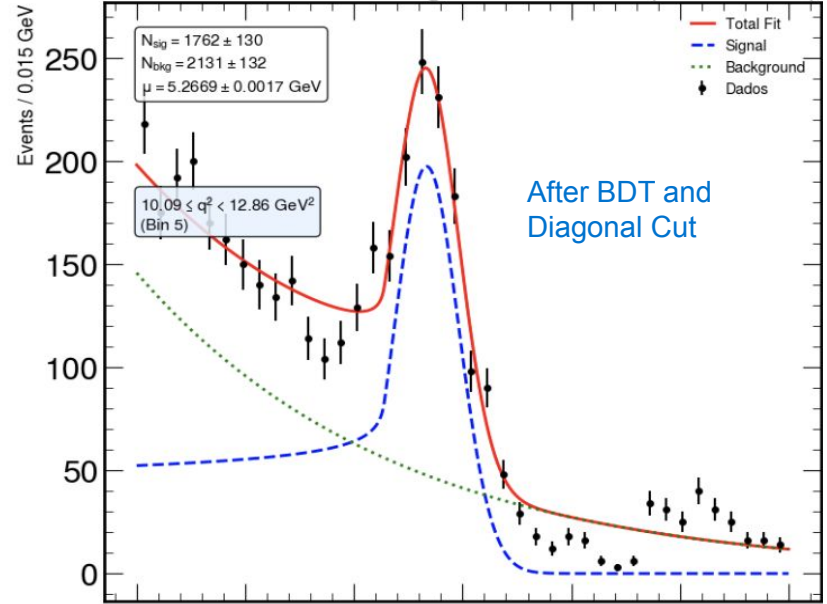
CMS Work in Progress (13.6 TeV)



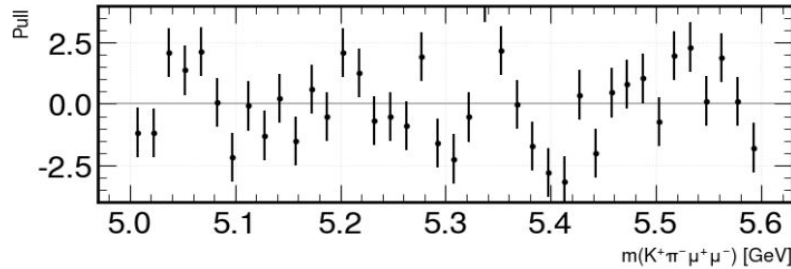
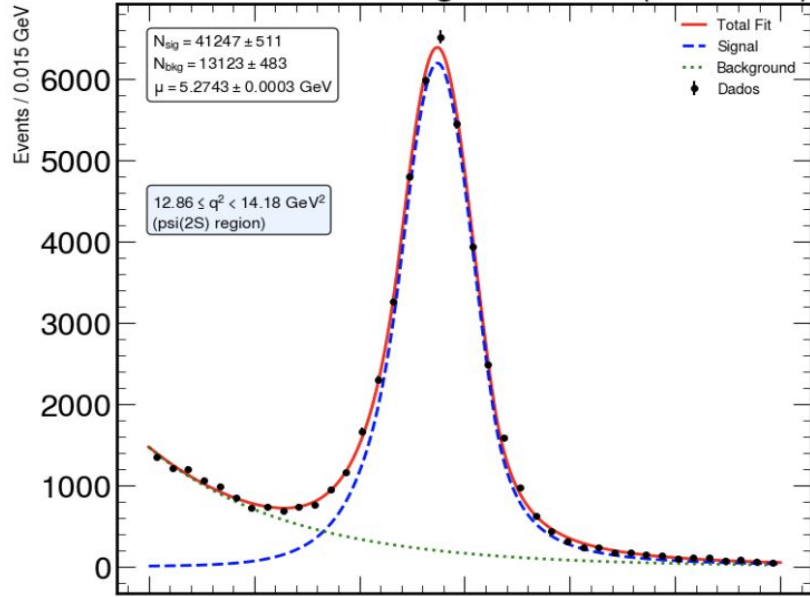
CMS Work in Progress (13.6 TeV)



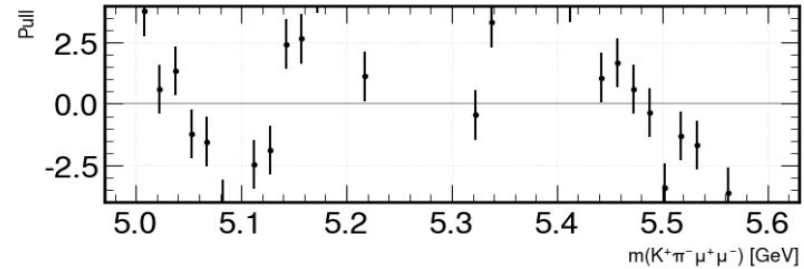
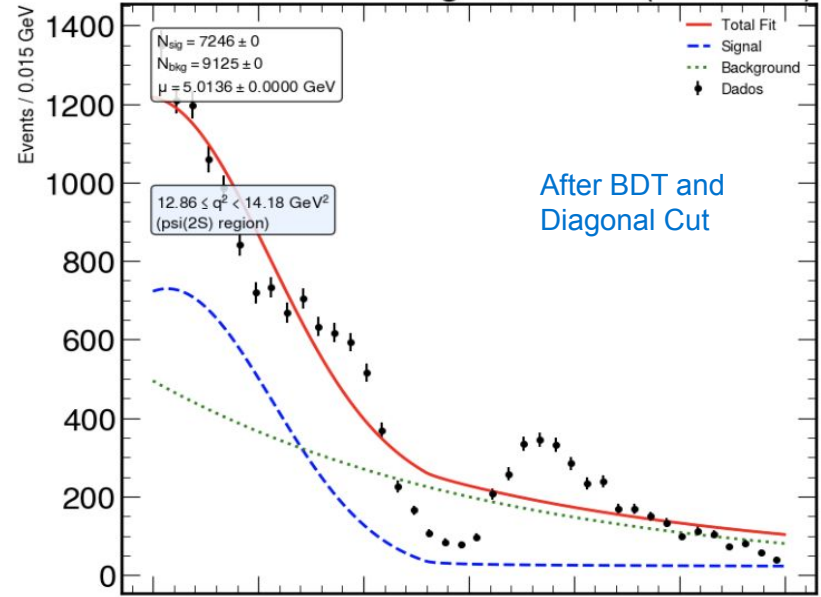
CMS Work in Progress (13.6 TeV)



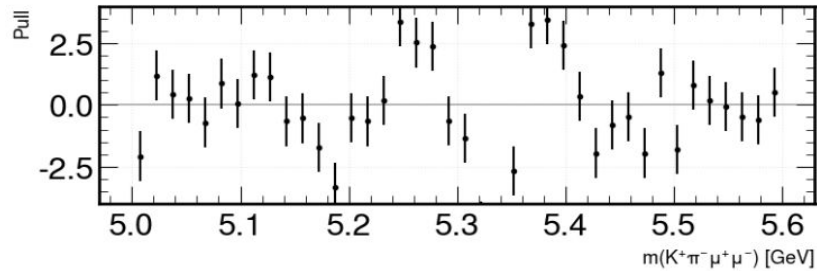
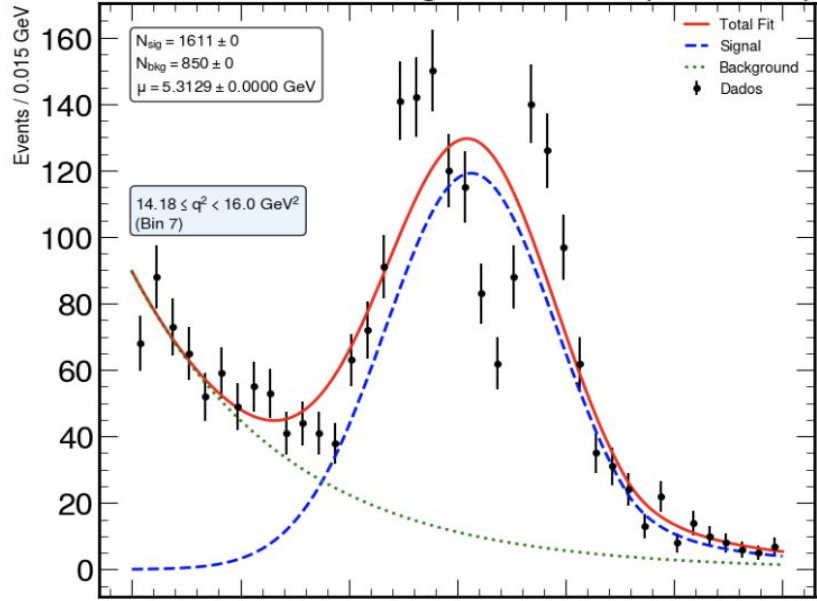
CMS Work in Progress (13.6 TeV)



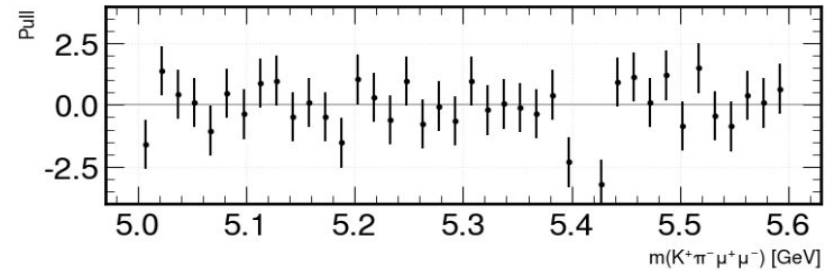
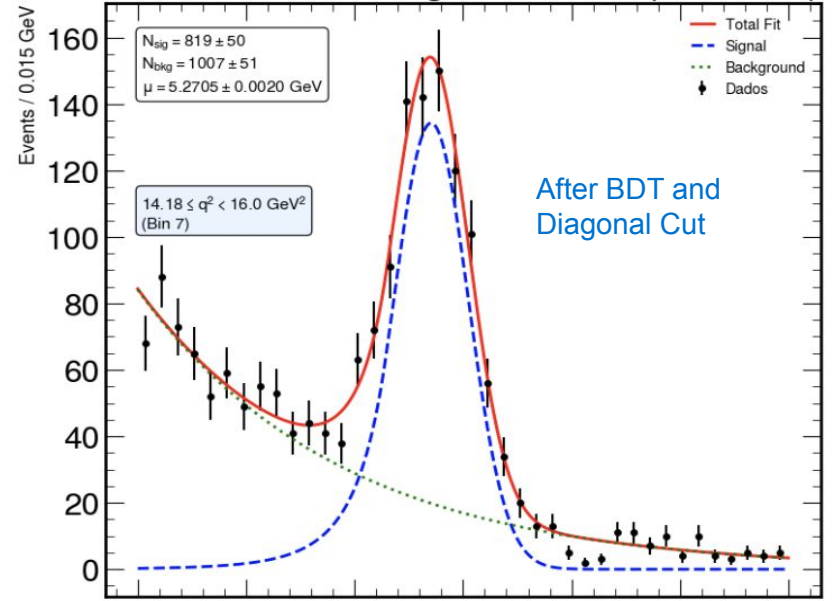
CMS Work in Progress (13.6 TeV)



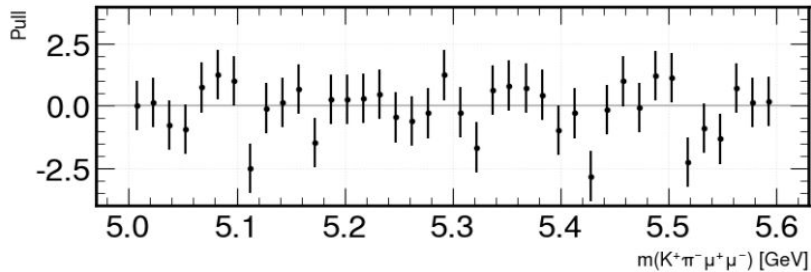
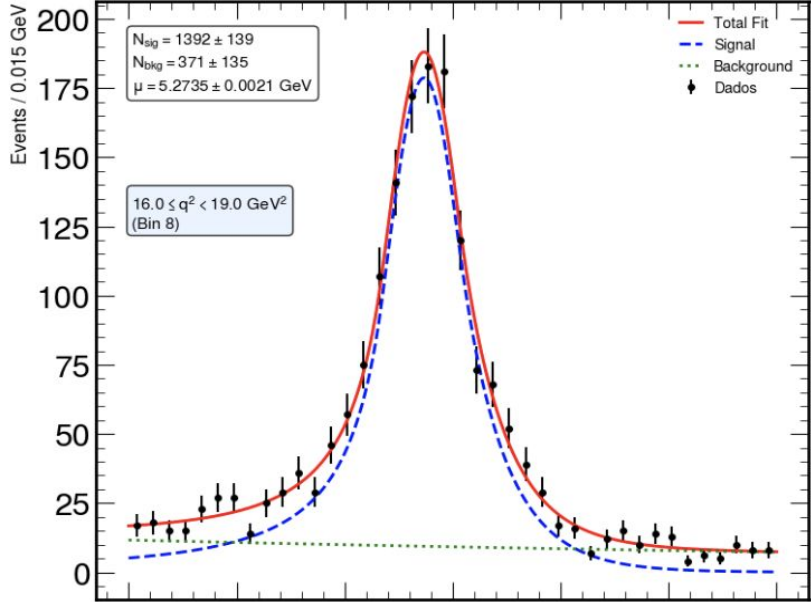
CMS Work in Progress (13.6 TeV)



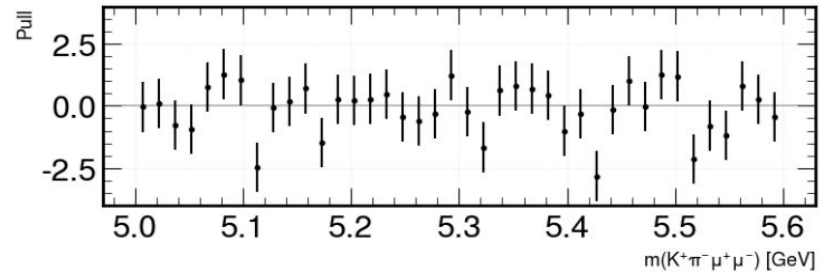
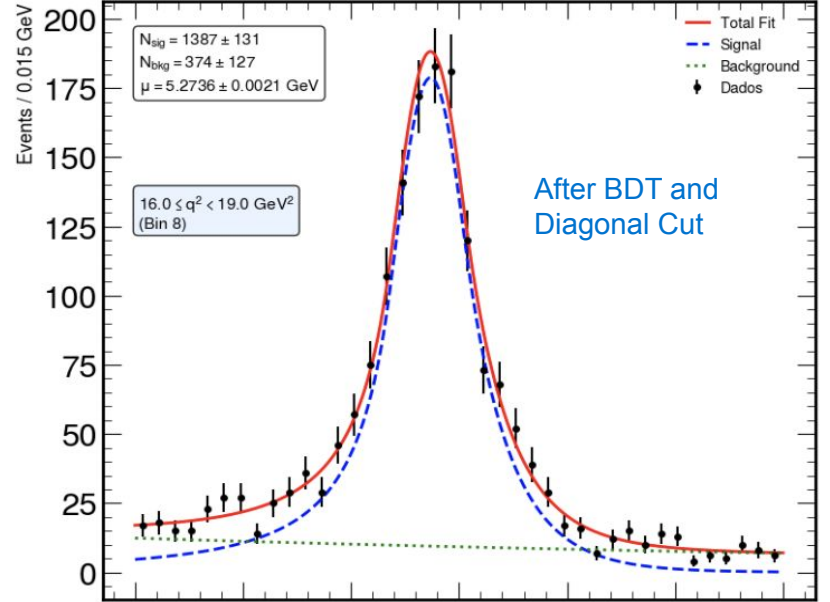
CMS Work in Progress (13.6 TeV)



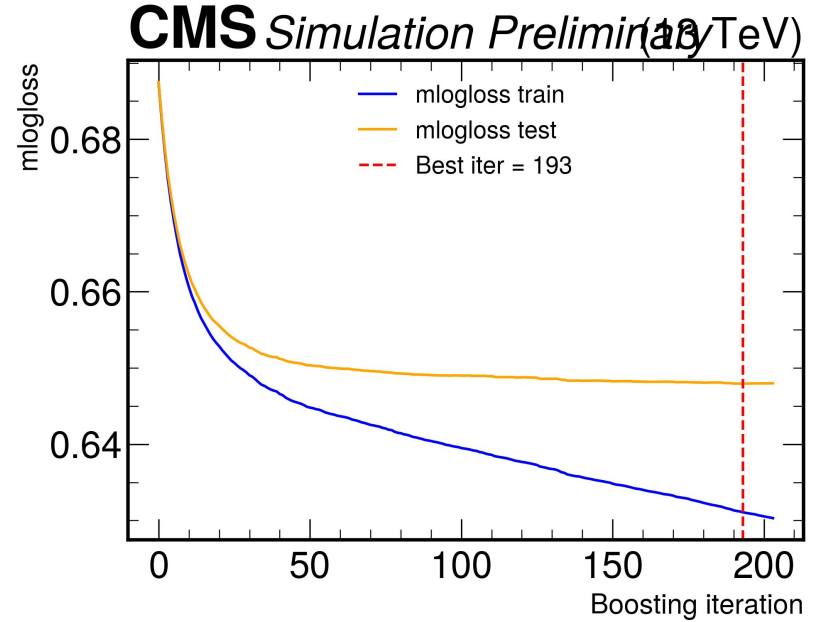
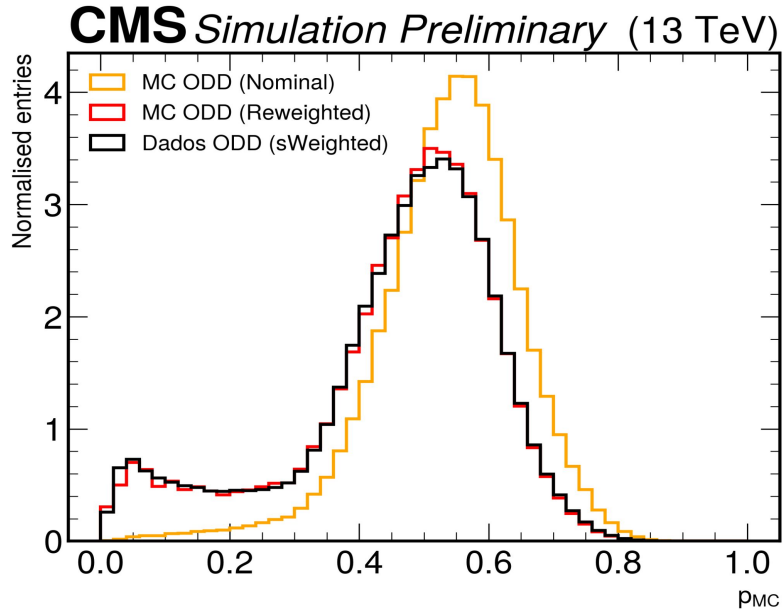
CMS Work in Progress (13.6 TeV)



CMS Work in Progress (13.6 TeV)

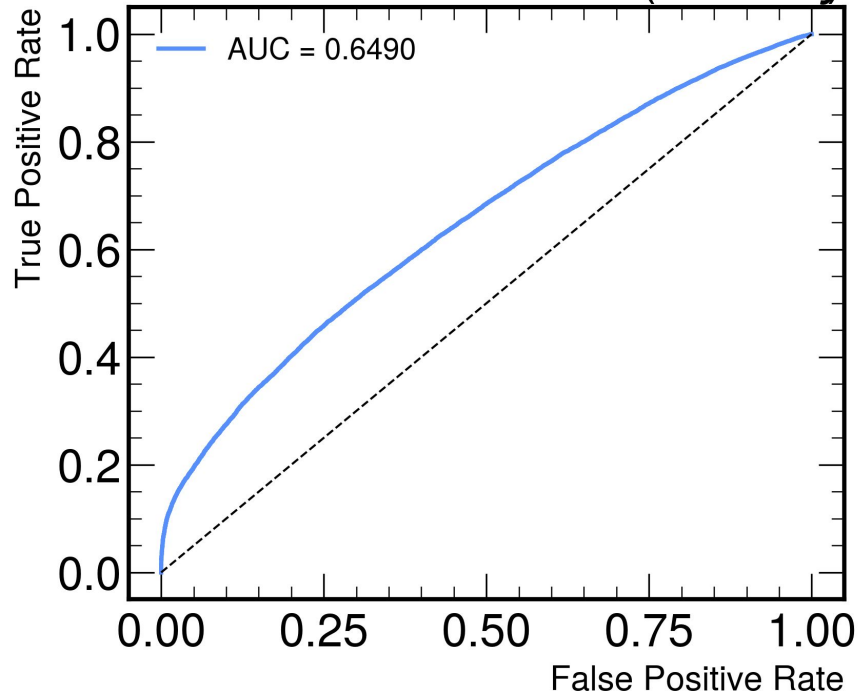


BDT Reweighting



BDT Reweighting

CMS Simulation Preliminary



Reweighting BDT – Feature Importance

