2D Plots update

Complete Belle data set

$B^+ \rightarrow Psi(2S)\ K^+$
$Psi(2S) \rightarrow mu^+\ mu^-$
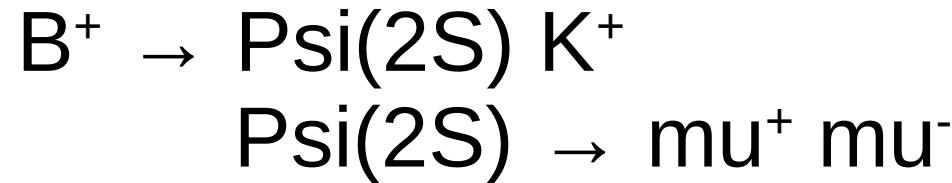
19 April 2024

# Cuts in the reconstruction program

- MVA photon cuts.

- $1.3 < m_{hadROE} < 5.3$ GeV

Root level cuts

- All applied cuts are mentioned in the title of the plots.

m_Psi(2S):sin_phi (reco. mass) with Rank 1 and Mbc_Bsig > 5.27 and -0.050 < deltaE < 0.050

hist	
Entries	2283
Mean x	0.9885
Mean y	3.153
Std Dev x	0.1139
Std Dev y	0.1739
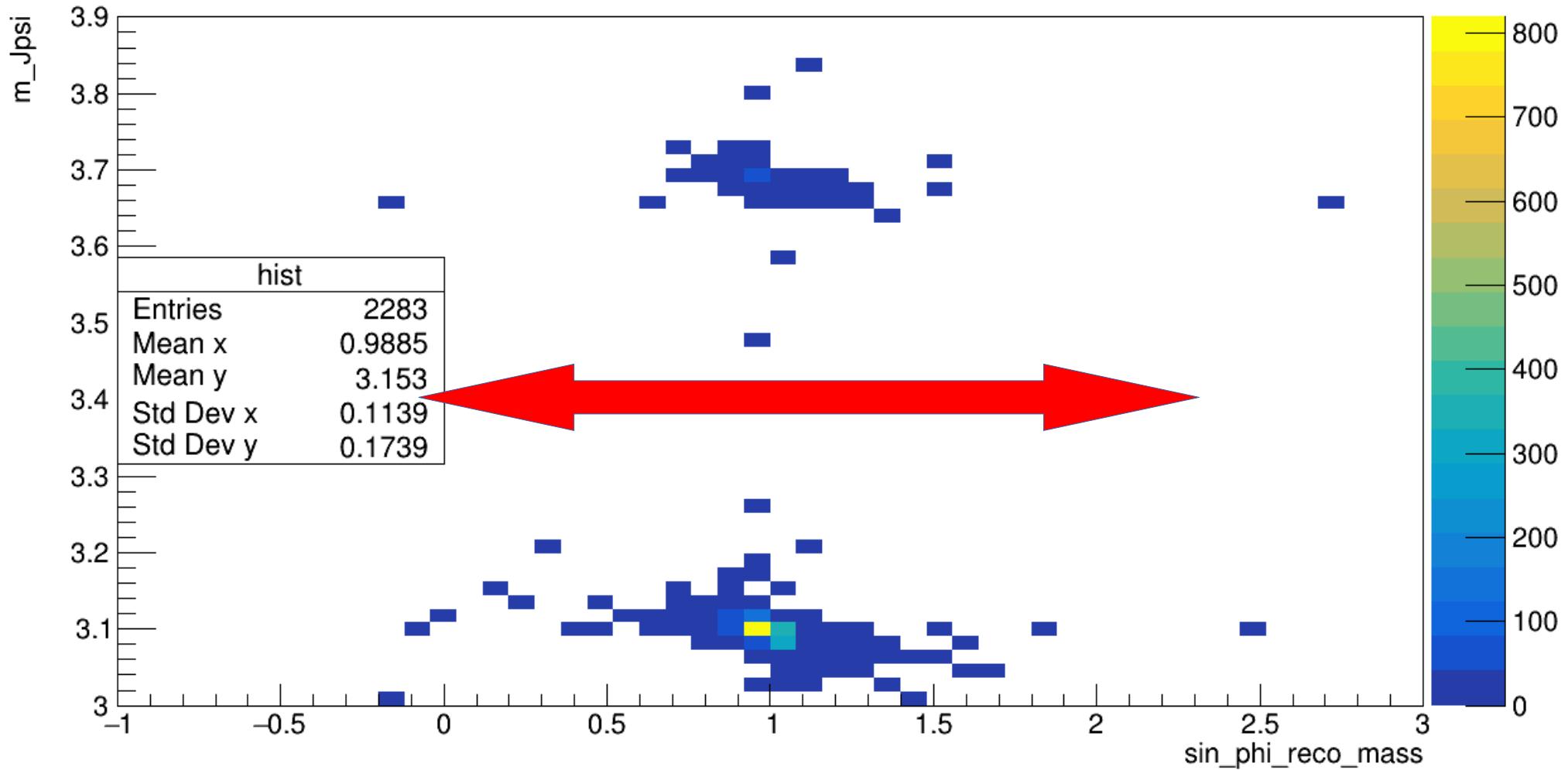
sin_phi_PDG:sin_phi_reco_psi_mass with Rank 1, -0.050 <deltaE< 0.050 and Mbc_Bsig>5.27
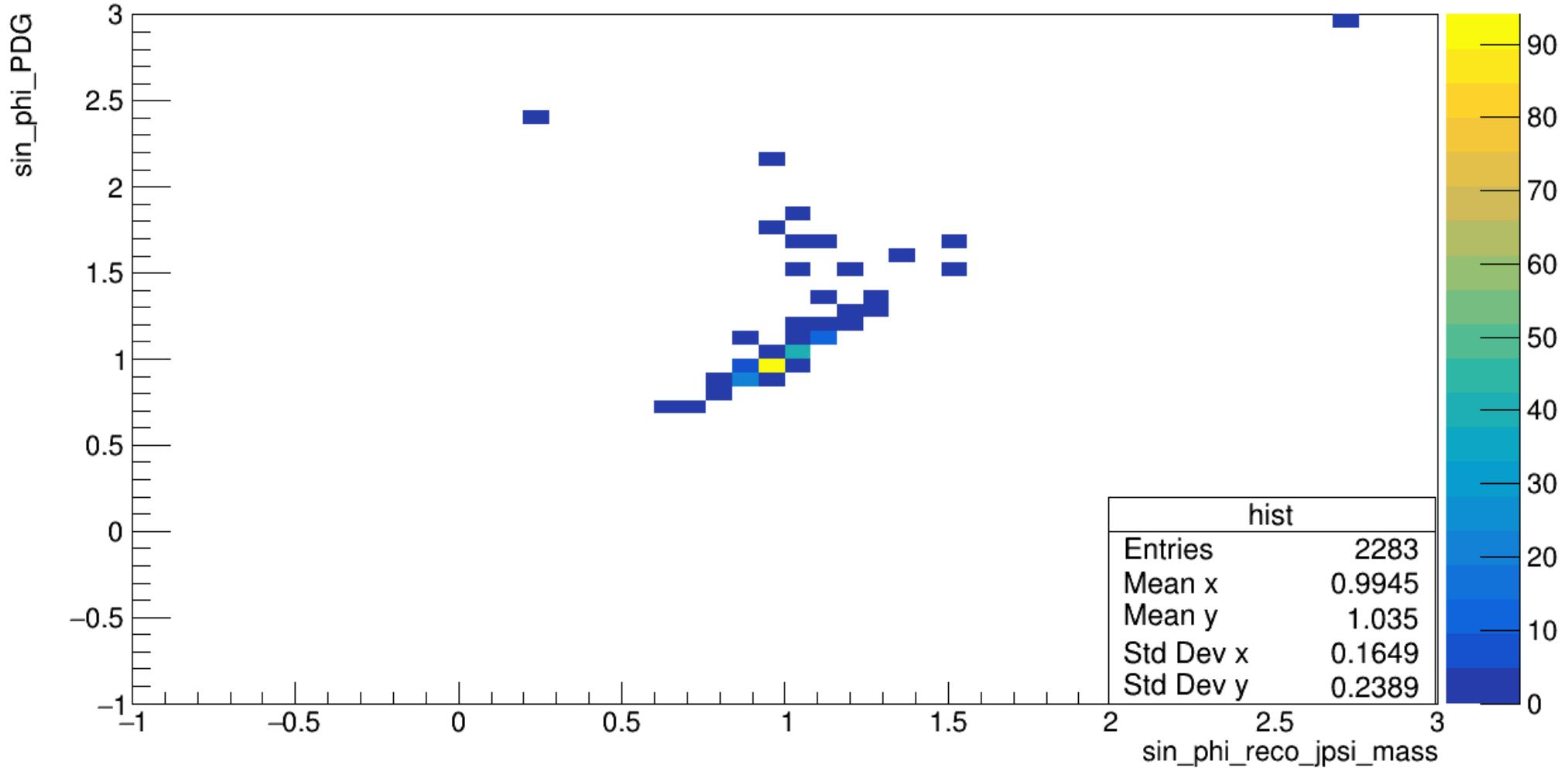
hist	
Entries	2283
Mean x	0.9945
Mean y	1.035
Std Dev x	0.1649
Std Dev y	0.2389

sin_phi_PDG:sin_phi_reco_psi_mass with Rank 1, m(Psi)>3.4, -0.050 <deltaE< 0.050 and Mbc_Bsig>5.27

hist	
Entries	225
Mean x	0.9945
Mean y	1.031
Std Dev x	0.1653
Std Dev y	0.2338

sin_phi_PDG:sin_phi_reco_psi_mass with Rank 1, m(Psi)<3.4, -0.050 <deltaE< 0.050 and Mbc_Bsig>5.27

hist	
Entries	2058
Mean x	0.9912
Mean y	1.795
Std Dev x	0
Std Dev y	0
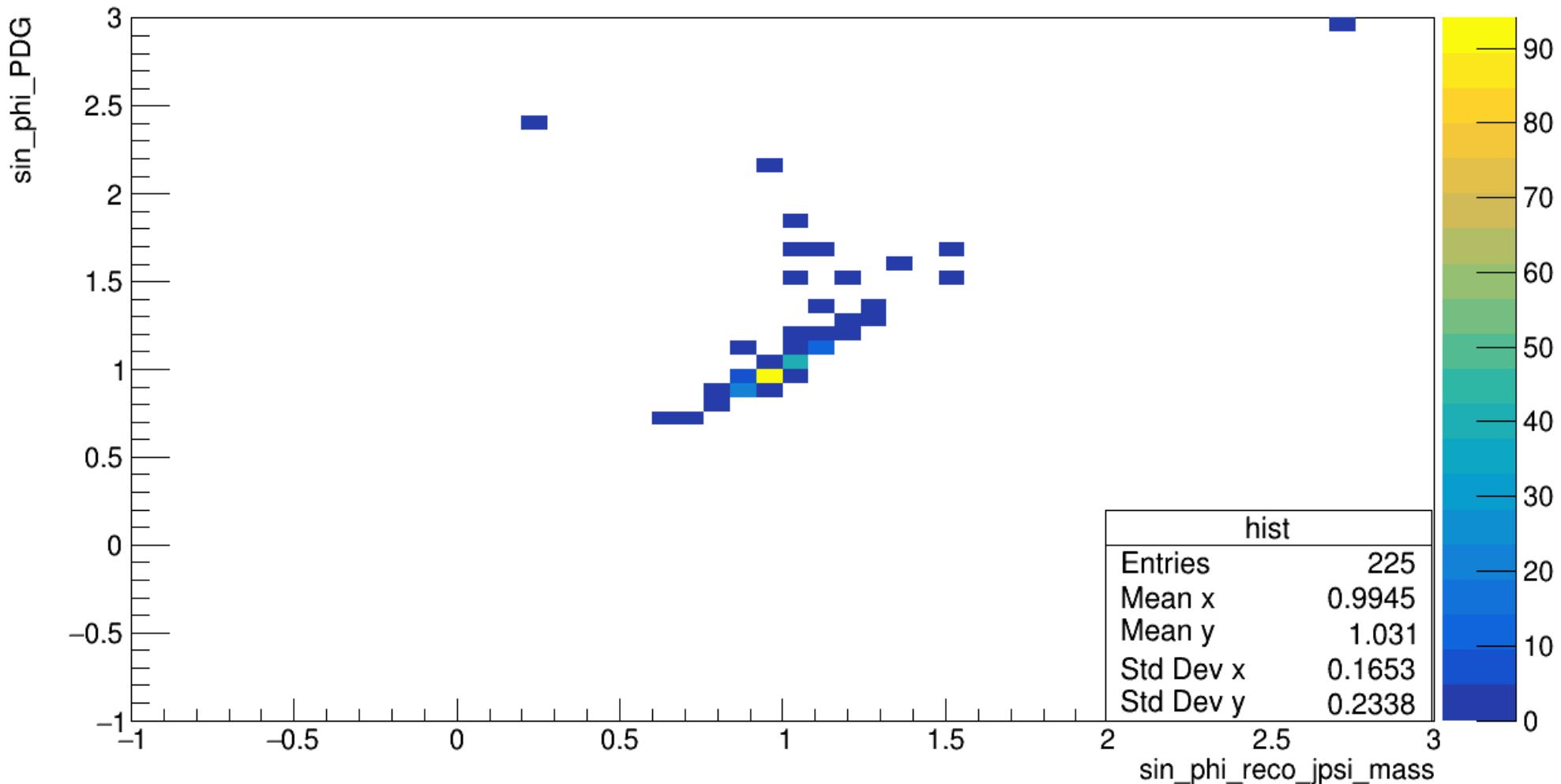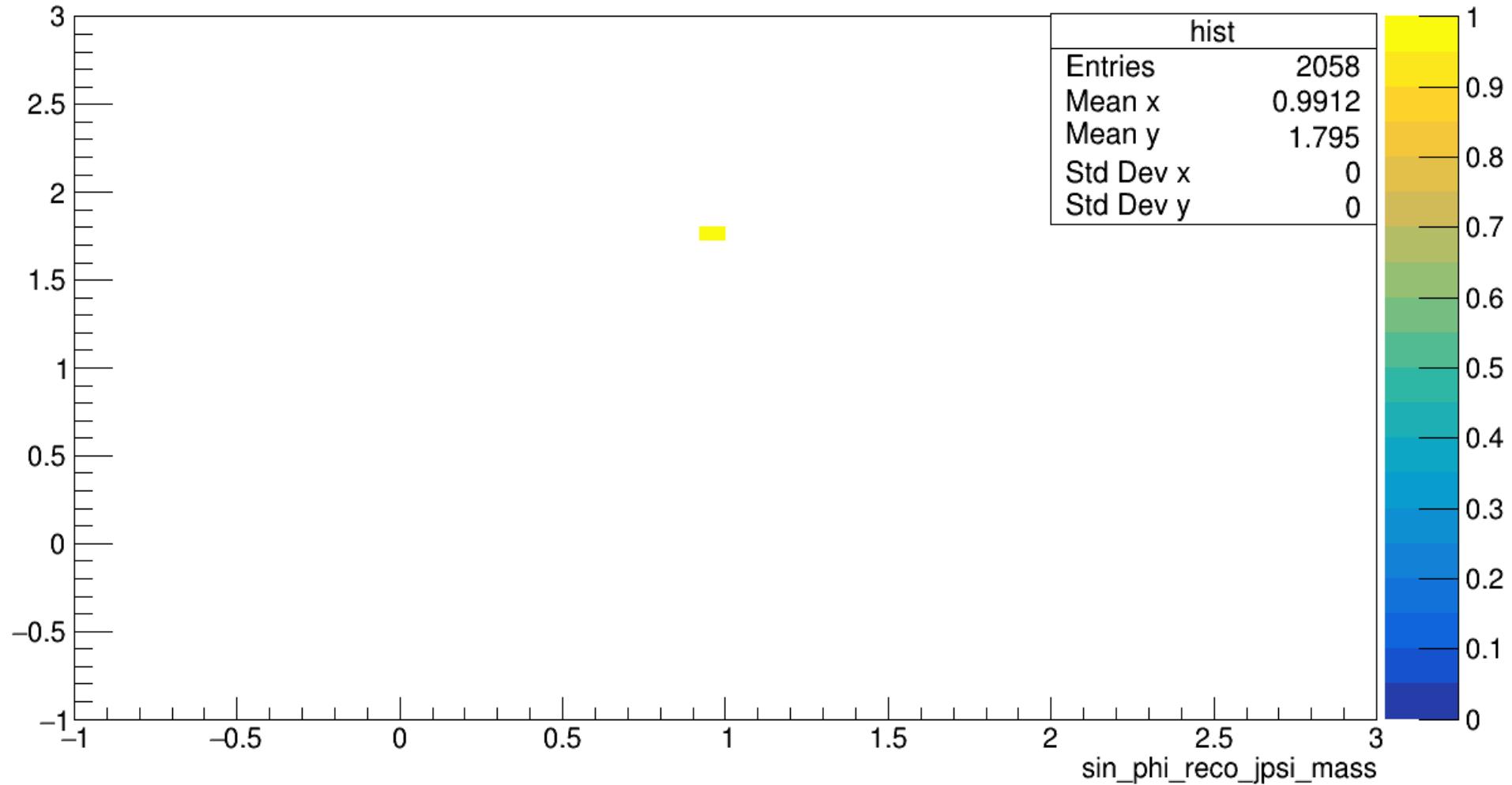
Back up

m_Psi:sin_phi_reco_psi_mass with Rank 1, m(Psi)<3.45, -0.050 <deltaE< 0.050 and Mbc_Bsig>5.27
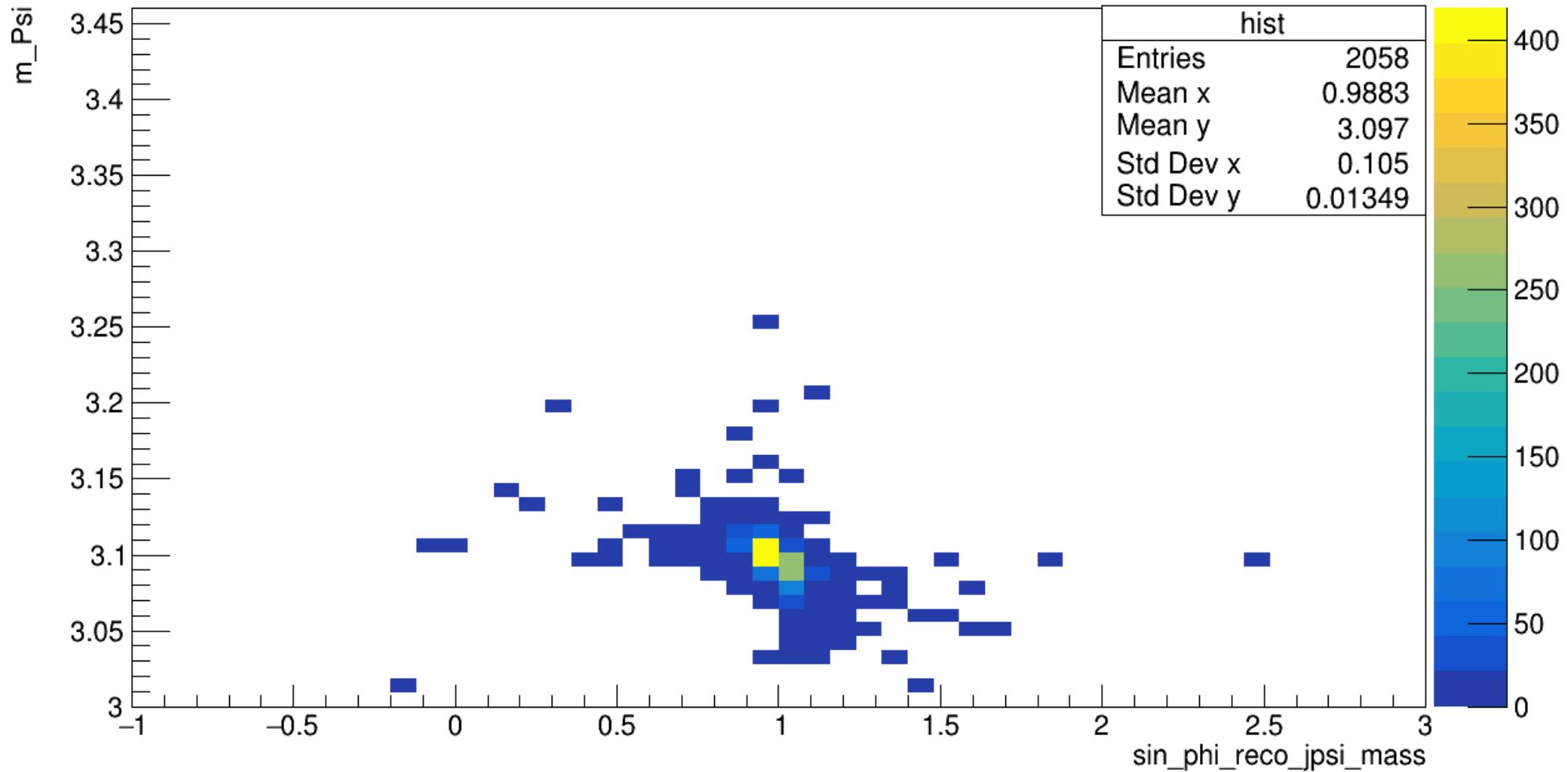
hist	
Entries	2058
Mean x	0.9883
Mean y	3.097
Std Dev x	0.105
Std Dev y	0.01349

m_Psi:sin_phi_reco_psi_mass with Rank 1, m(Psi)>3.45, -0.050 <deltaE< 0.050 and Mbc_Bsig>5.27

hist	
Entries	225
Mean x	0.9907
Mean y	3.687
Std Dev x	0.1773
Std Dev y	0.02463
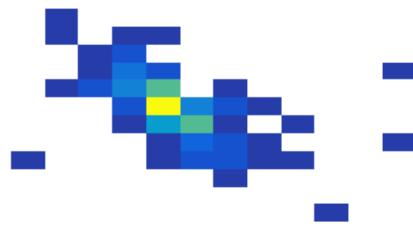
m_Psi(2S):sin_phi (PDG mass) with Rank 1 and Mbc_Bsig > 5.27 and -0.050 < deltaE < 0.050

hist	
Entries	223
Mean x	1.009
Mean y	3.686
Std Dev x	0.1874
Std Dev y	0.03583