

# Plot Attributes SO11HosotaniDummyCase

February 7, 2020

Statistics for SO11HosotaniDummyCase attributes.

We are imposing a ChiSquared cut at a upper bound of :20.52

The following are the attributes that go into the making of the plot **LambdaMax-zL-ThetaHiggs**:

The following have a contribution to  $\chi_G^2$  corresponding to:

$m_H(\text{GeV})$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_H(\text{GeV})$  Test Mean : 125.18
- $m_H(\text{GeV})$  Expedimental Standard deviation : 0.16
- $m_H(\text{GeV})$  Theoretical Standard deviation : 1.25

$m_\tau(\text{GeV})$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_\tau(\text{GeV})$  Test Mean : 1.776
- $m_\tau(\text{GeV})$  Expedimental Standard deviation : 0.00012
- $m_\tau(\text{GeV})$  Theoretical Standard deviation : 0.01776

$m_\nu(eV)$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_\nu(eV)$  Test Mean : 0.1
- $m_\nu(eV)$  Expedimental Standard deviation : 0.0
- $m_\nu(eV)$  Theoretical Standard deviation : 1.0

$m_b(\text{GeV})$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_b(\text{GeV})$  Test Mean : 4.18
- $m_b(\text{GeV})$  Expedimental Standard deviation : 0.04
- $m_b(\text{GeV})$  Theoretical Standard deviation : 0.0418

$m_t(\text{GeV})$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_t(\text{GeV})$  Test Mean : 172.44
- $m_t(\text{GeV})$  Experimental Standard deviation : 0.9
- $m_t(\text{GeV})$  Theoretical Standard deviation : 1.724

$m_{W^\pm}(\text{GeV})$  with test mean, experimental StdDev, and theoretical StdDev:

- $m_{W^\pm}(\text{GeV})$  Test Mean : 80.379
- $m_{W^\pm}(\text{GeV})$  Experimental Standard deviation : 0.012
- $m_{W^\pm}(\text{GeV})$  Theoretical Standard deviation : 0.8037

---

The following have a hard cut corresponding to:

$m_{\psi_D}(\text{GeV})$  with a cut type and value

- $m_{\psi_D}(\text{GeV})$  Cut Type :HardCutMore
- $m_{\psi_D}(\text{GeV})$  Cut Value : 690

$m_\tau^{(1)}(\text{GeV})$  with a cut type and value

- $m_\tau^{(1)}(\text{GeV})$  Cut Type :HardCutMore
- $m_\tau^{(1)}(\text{GeV})$  Cut Value : 560

$m_b^{(1)}(\text{GeV})$  with a cut type and value

- $m_b^{(1)}(\text{GeV})$  Cut Type :HardCutMore
- $m_b^{(1)}(\text{GeV})$  Cut Value : 690

$m_{Z'}(\text{GeV})$  with a cut type and value

- $m_{Z'}(\text{GeV})$  Cut Type :HardCutMore
- $m_{Z'}(\text{GeV})$  Cut Value : 2420