# SO11HosotaniDummyCase Failed-Global-Constr

### January 10, 2020

Statistics for SO11HosotaniDummyCase attributes. The following is for points that Failed-Global-Constr the constraints:

The following are the statistics for **Param**:

### k(GeV):

- The average value for k(GeV) is : 128801.71907153299
- Standard deviation for k(GeV) is : 62573.08931934917
- Minimum value for k(GeV) is : 23684.801448552284
- Maximum value for k(GeV) is : 568436.9874120001

#### $z_L$ :

- $\bullet$  The average value for  $z_L$  is : 35.6393773187929
- $\bullet$  Standard deviation for  $z_L$  is : 3.4602158944008474
- Minimum value for  $z_L$  is : 17.43649508024567
- Maximum value for  $z_L$  is: 51.226730749863854

#### $c_0$ :

- $\bullet$  The average value for  $c_0$  is : 0.27017533002489086
- $\bullet$  Standard deviation for  $c_0$  is : 0.16778249594772685
- Minimum value for  $c_0$  is : 0.0014
- Maximum value for  $c_0$  is : 1.3829290111473

### $c_1$ :

- $\bullet$  The average value for  $c_1$  is : 0.13141332566910877
- Standard deviation for  $c_1$  is: 0.10667290379650998

- Minimum value for  $c_1$  is : 1.9287109375015765e-05
- Maximum value for  $c_1$  is: 0.6766512788619184

 $c_2$ :

- $\bullet$  The average value for  $c_2$  is : -0.7184663846765416
- $\bullet$  Standard deviation for  $c_2$  is : 0.18809700390990003
- Minimum value for  $c_2$  is : -1.2471465930399999
- Maximum value for  $c_2$  is : -0.1545541855833397

 $c'_{0}:$ 

- The average value for  $c_0'$  is : 0.5656942004151122
- Standard deviation for  $c'_0$  is : 0.19804515842922746
- Minimum value for  $c_0'$  is : 0.062000923215999953
- $\bullet$  Maximum value for  $c_0'$  is : 3.4910387209040272

 $\mu_1$ :

- $\bullet$  The average value for  $\mu_1$  is : 14.482274870724245
- Standard deviation for  $\mu_1$  is : 4.126231334839101
- Minimum value for  $\mu_1$  is : 6.144251796106855
- Maximum value for  $\mu_1$  is : 64.49975233857032

 $\mu_{11}$  :

- The average value for  $\mu_{11}$  is : 0.2934493646646469
- Standard deviation for  $\mu_{11}$  is : 0.2289802861203293
- Minimum value for  $\mu_{11}$  is : 0.00016414231999992146
- Maximum value for  $\mu_{11}$  is : 2.23977

 $\mu'_{11}$ :

- $\bullet$  The average value for  $\mu'_{11}$  is : 0.35002730615448896
- Standard deviation for  $\mu'_{11}$  is : 0.28710730270351903
- $\bullet$  Minimum value for  $\mu'_{11}$  is : 0.0005893571040000156
- Maximum value for  $\mu'_{11}$  is : 2.2649599043224953

 $\tilde{\mu_2}$ :

- The average value for  $\tilde{\mu_2}$  is : 1.6005892912231532
- Standard deviation for  $\tilde{\mu_2}$  is : 1.0380817311215622
- • Minimum value for  $\tilde{\mu_2}$  is : 0.0045119999999998495
- Maximum value for  $\tilde{\mu_2}$  is : 9.44110403644189

#### The following are the statistics for **Attr**:

### $m_H(\text{GeV})$ :

- The average value for  $m_H(\text{GeV})$  is: 160.7237856591854
- Standard deviation for  $m_H(\text{GeV})$  is : 215.99762008867668
- Minimum value for  $m_H(\text{GeV})$  is : 6.035070957702646
- Maximum value for  $m_H(\text{GeV})$  is : 3569.183086071825

## $m_{\psi_D}({\rm GeV})$ :

- The average value for  $m_{\psi_D}({\rm GeV})$  is : 2789.8791830575533
- Standard deviation for  $m_{\psi_D}(\text{GeV})$  is : 1320.7689852015421
- Minimum value for  $m_{\psi_D}(\text{GeV})$  is : 539.2456808043827
- Maximum value for  $m_{\psi_D}(\text{GeV})$  is : 30817.778632083326

### $m_{\tau}(\text{GeV})$ :

- The average value for  $m_{\tau}(\text{GeV})$  is : 14.942507646783648
- Standard deviation for  $m_{\tau}(\text{GeV})$  is : 172.15557408532848
- Minimum value for  $m_{\tau}(\text{GeV})$  is : 2.7271938653701917e-07
- Maximum value for  $m_{\tau}(\text{GeV})$  is : 5353.710492830509

### $m_{\tau}^{(1)}(\text{GeV})$ :

- The average value for  $m_{\tau}^{(1)}(\text{GeV})$  is : 1239.6025592736028
- Standard deviation for  $m_{\tau}^{(1)}({\rm GeV})$  is : 1709.5201709778044
- Minimum value for  $m_{\tau}^{(1)}(\text{GeV})$  is: 0.39981220509084303
- Maximum value for  $m_{\tau}^{(1)}(\text{GeV})$  is : 26727.41983603022  $m_{\nu}(eV)$  :
  - The average value for  $m_{\nu}(eV)$  is : 7.564916484507639

- Standard deviation for  $m_{\nu}(eV)$  is : 222.59068170146205
- Minimum value for  $m_{\nu}(eV)$  is : 4.2801281026368174e-17
- - The average value for  $m_b(\text{GeV})$  is : 22.43450897402143
  - Standard deviation for  $m_b(\text{GeV})$  is: 303.65981640280324
  - Minimum value for  $m_b(\text{GeV})$  is : 2.799992332437624e-07
- $\bullet$  Maximum value for  $m_b({\rm GeV})$  is : 8986.845743286196  $m_b^{(1)}({\rm GeV}):$ 
  - The average value for  $m_b^{(1)}(\text{GeV})$  is: 3959.472713083984
  - Standard deviation for  $m_h^{(1)}(\text{GeV})$  is : 2122.453457601219
  - Minimum value for  $m_h^{(1)}(\text{GeV})$  is : 79.42419523485768
- - The average value for  $m_t(\text{GeV})$  is : 254.6353847214764
  - Standard deviation for  $m_t(\text{GeV})$  is: 891.9429665901321
  - Minimum value for  $m_t(\text{GeV})$  is : 8.883477218365486e-06
- Maximum value for  $m_t(\text{GeV})$  is : 27948.000246701922  $\langle \theta_H \rangle (\text{rad})$  :
  - The average value for  $\langle \theta_H \rangle$  (rad) is: 0.18651769497011944
  - Standard deviation for  $\langle \theta_H \rangle$  (rad) is: 0.3906799966867381
  - Minimum value for  $\langle \theta_H \rangle$  (rad) is : 5.5389874692659366e-09
- Maximum value for  $\langle \theta_H \rangle$  (rad) is : 3.141592653524363  $m_Z({\rm GeV})$  :
  - $\bullet$  The average value for  $m_Z({\rm GeV})$  is : 109.00409013171678
  - Standard deviation for  $m_Z(\text{GeV})$  is: 315.5195381976891
  - Minimum value for  $m_Z(\text{GeV})$  is : 1.2121014312745615e-07
  - Maximum value for  $m_Z(\text{GeV})$  is : 29797.464985761995

### $m_{W^{\pm}}(\text{GeV})$ :

- The average value for  $m_{W^{\pm}}(\text{GeV})$  is : 95.57613882341614
- Standard deviation for  $m_{W^{\pm}}(\text{GeV})$  is : 276.651446269978
- Minimum value for  $m_{W^{\pm}}(\text{GeV})$  is: 1.0627855755098015e-07
- $\bullet$  Maximum value for  $m_{W^\pm}({\rm GeV})$  is : 26126.787046465266  $m_{Z'}({\rm GeV})$  :
  - The average value for  $m_{Z'}(\text{GeV})$  is : 13402.870921068596
  - Standard deviation for  $m_{Z'}(\text{GeV})$  is : 6520.854560231592
  - Minimum value for  $m_{Z'}(\text{GeV})$  is : 2406.1721144785306
  - Maximum value for  $m_{Z'}(\text{GeV})$  is : 62589.662924720586

#### T:

- The average value for T is : 0.0
- Standard deviation for T is: 0.0
- Minimum value for T is : 0
- Maximum value for T is : 0

#### $y_t$ :

- The average value for  $y_t$  is: 0.865719958311292
- Standard deviation for  $y_t$  is: 0.44962237542620564
- Minimum value for  $y_t$  is : -0.9913292142098233
- Maximum value for  $y_t$  is : 0.9913292142098233

### $\tau_H$ :

- The average value for  $\tau_H$  is : 32.43104259684015
- $\bullet$  Standard deviation for  $\tau_H$  is : 39.51244445189893
- $\bullet$  Minimum value for  $\tau_H$  is : 1.3514550664823795e-09
- Maximum value for  $\tau_H$  is : 656.4358702272674

### $\sigma(hh)(fb)$ :

- $\bullet$  The average value for  $\sigma(hh)(fb)$  is : 828.2183466755355
- Standard deviation for  $\sigma(hh)(fb)$  is : 20441.51779718682

- Minimum value for  $\sigma(hh)(fb)$  is : 9.769117128787467e-19
- Maximum value for  $\sigma(hh)(fb)$  is : 2108484.05431032

### $\Delta_{HH}$ :

- The average value for  $\Delta_{HH}$  is : 8.254798076775442
- $\bullet$  Standard deviation for  $\Delta_{HH}$  is : 229.29512303340576
- • Minimum value for  $\Delta_{HH}$  is : 2.3341307108570765e-20
- Maximum value for  $\Delta_{HH}$  is : 24842.93813309167

### The following are the statistics for **Calc**:

# $\chi_G^2$ :

- $\bullet$  The average value for  $\chi^2_G$  is : 122566297.70881166
- • Standard deviation for  $\chi^2_G$  is : 1877385993.212863
- $\bullet$  Minimum value for  $\chi^2_G$  is : 3.776936935524515

### $\sin^2 \theta_W$ :

- The average value for  $\sin^2 \theta_W$  is : 0.21733258106777295
- Standard deviation for  $\sin^2 \theta_W$  is : 0.014115927620855711
- Minimum value for  $\sin^2 \theta_W$  is : 0.05097130997659136
- Maximum value for  $\sin^2 \theta_W$  is : 0.2645621273607718