# SO11HosotaniDummyCase Failed-Global-Constr

## January 21, 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 : 129647.32531005506
- Standard deviation for k(GeV) is: 63805.8230130357
- 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 : 35.65037462537694
- $\bullet$  Standard deviation for  $z_L$  is : 3.4566977733268525
- Minimum value for  $z_L$  is : 17.43649508024567
- Maximum value for  $z_L$  is: 51.226730749863854

#### $c_0$ :

- The average value for  $c_0$  is : 0.26889104420969284
- $\bullet$  Standard deviation for  $c_0$  is : 0.16997053261159598
- Minimum value for  $c_0$  is : 0.0014
- Maximum value for  $c_0$  is : 1.231647031325609

## $c_1$ :

- $\bullet$  The average value for  $c_1$  is : 0.1271376237829456
- Standard deviation for  $c_1$  is: 0.1017145842772635

- Minimum value for  $c_1$  is : 1.9287109375015765e-05
- Maximum value for  $c_1$  is: 0.6756655423950202

 $c_2$ :

- The average value for  $c_2$  is : -0.7117506077472767
- Standard deviation for  $c_2$  is: 0.1868242184153944
- Minimum value for  $c_2$  is : -1.2083085984
- Maximum value for  $c_2$  is : -0.1545541855833397

 $c'_{0}:$ 

- $\bullet$  The average value for  $c_0'$  is : 0.572514486456353
- Standard deviation for  $c'_0$  is: 0.20318717693129862
- Minimum value for  $c_0'$  is : 0.062000923215999953
- $\bullet$  Maximum value for  $c_0'$  is : 3.4910387209040272

 $\mu_1$ :

- The average value for  $\mu_1$  is : 14.58775857931152
- Standard deviation for  $\mu_1$  is : 4.24418549151289
- 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 : 0.289453452705812
- • Standard deviation for  $\mu_{11}$  is : 0.219698552930096
- Minimum value for  $\mu_{11}$  is : 0.00016414231999992146
- Maximum value for  $\mu_{11}$  is : 2.23977

 $\mu'_{11}$ :

- The average value for  $\mu'_{11}$  is : 0.360730455102262
- Standard deviation for  $\mu'_{11}$  is : 0.2858359164137245
- $\bullet$  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 : 1.6810484993568358
- Standard deviation for  $\tilde{\mu_2}$  is : 1.0292996389394204
- Minimum value for  $\tilde{\mu_2}$  is : 0.004511999999998495
- $\bullet$  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: 160.04641760888512
- Standard deviation for  $m_H(\text{GeV})$  is: 219.4239818233438
- 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  $m_{\psi_D}(\text{GeV})$  is : 2786.052178989165
- Standard deviation for  $m_{\psi_D}(\text{GeV})$  is : 1341.900455173803
- 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 : 15.8087850513123
- Standard deviation for  $m_{\tau}(\text{GeV})$  is : 179.8231216874051
- Minimum value for  $m_{\tau}(\text{GeV})$  is : 4.4043053013378107e-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 : 1286.7774468704376
- Standard deviation for  $m_{\tau}^{(1)}(\text{GeV})$  is : 1681.2709731975763
- 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 : 6.918862702707435

- Standard deviation for  $m_{\nu}(eV)$  is : 225.67835211640931
- Minimum value for  $m_{\nu}(eV)$  is : 6.905872012793404e-17
- - The average value for  $m_b(\text{GeV})$  is: 18.42717576515878
  - Standard deviation for  $m_b(\text{GeV})$  is : 257.61876421072236
  - Minimum value for  $m_b(\text{GeV})$  is : 4.4286077974223163e-07
- Maximum value for  $m_b(\text{GeV})$  is : 8986.708693002925

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

- The average value for  $m_b^{(1)}(\text{GeV})$  is : 4004.2441097302976
- Standard deviation for  $m_b^{(1)}(\text{GeV})$  is : 2151.48344702655
- Minimum value for  $m_h^{(1)}(\text{GeV})$  is : 164.1576766665587
- - The average value for  $m_t(\text{GeV})$  is : 252.59543019988365
  - Standard deviation for  $m_t(\text{GeV})$  is: 819.9849427485609
  - Minimum value for  $m_t(\text{GeV})$  is: 1.1140066853307358e-05
- 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: 0.19353271030403355
  - Standard deviation for  $\langle \theta_H \rangle$  (rad) is : 0.4076220505516066
  - Minimum value for  $\langle \theta_H \rangle$  (rad) is : 5.5389874692659366e-09
- Maximum value for  $\langle \theta_H \rangle$  (rad) is : 3.141592653524363  $m_Z({\rm GeV})$  :
  - The average value for  $m_Z(\text{GeV})$  is : 108.87183253903238
  - Standard deviation for  $m_Z(\text{GeV})$  is : 190.86433749235138
  - Minimum value for  $m_Z(\text{GeV})$  is : 1.2121014312745615e-07
  - Maximum value for  $m_Z(\text{GeV})$  is : 17972.747128987812

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

- The average value for  $m_{W^{\pm}}(\text{GeV})$  is : 95.46017372500947
- Standard deviation for  $m_{W^{\pm}}(\text{GeV})$  is: 167.35221948612414
- Minimum value for  $m_{W^{\pm}}(\text{GeV})$  is : 1.0627855755098015e-07
- Maximum value for  $m_{W^{\pm}}(\text{GeV})$  is : 15758.727700608339

## $m_{Z'}(\mathrm{GeV})$ :

- The average value for  $m_{Z'}(\text{GeV})$  is : 13482.523669641816
- Standard deviation for  $m_{Z'}(\text{GeV})$  is: 6638.09438235508
- Minimum value for  $m_{Z'}(\text{GeV})$  is : 2406.1721144785306
- Maximum value for  $m_{Z'}(\text{GeV})$  is : 62589.662924720586

#### T:

- $\bullet$  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 : 0.8664644421655036
- Standard deviation for  $y_t$  is : 0.4466085222813695
- Minimum value for  $y_t$  is : -0.9913292142098233
- $\bullet$  Maximum value for  $y_t$  is : 0.9913292142098233

### $\tau_H$ :

- The average value for  $\tau_H$  is : 31.986848935165757
- Standard deviation for  $\tau_H$  is : 39.24432112130587
- $\bullet$  Minimum value for  $\tau_H$  is : 1.3514550664823795e-09
- Maximum value for  $\tau_H$  is : 656.4358702272674

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

- The average value for  $\sigma(hh)(fb)$  is : 887.2133433369787
- Standard deviation for  $\sigma(hh)(fb)$  is : 21470.35227378601

- 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: 8.871661986684177
- Standard deviation for  $\Delta_{HH}$  is : 240.90220833074727
- Minimum value for  $\Delta_{HH}$  is : 2.3341307108570765e-20
- Maximum value for  $\Delta_{HH}$  is : 24842.93813309167

## The following are the statistics for $\mathbf{Calc}$ :

## $\chi_G^2$ :

- $\bullet$  The average value for  $\chi^2_G$  is : 123332171.85433744
- • Standard deviation for  $\chi^2_G$  is : 1927084400.109561
- Minimum value for  $\chi_G^2$  is : 18.644696044894935
- $\bullet$  Maximum value for  $\chi^2_G$  is : 90824743137.21648

### $\Lambda_{\mathrm{Max}}$ :

- $\bullet$  The average value for  $\Lambda_{\rm Max}$  is : 1468773.2226548973
- $\bullet$  Standard deviation for  $\Lambda_{\rm Max}$  is : 1263069.804081004
- Minimum value for  $\Lambda_{\text{Max}}$  is : 71295.45760415505
- Maximum value for  $\Lambda_{\rm Max}$  is : 10683637.20798487

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

- The average value for  $\sin^2 \theta_W @ \Lambda$  is : 0.05341109744784086
- Standard deviation for  $\sin^2 \theta_W @ \Lambda$  is : 0.03396910762776724
- Minimum value for  $\sin^2 \theta_W @ \Lambda$  is : 0.008423233718834073
- Maximum value for  $\sin^2 \theta_W @ \Lambda$  is : 0.21018275972024553

# $\sin^2\theta_W @{\rm KK}_5$ :

- $\bullet$  The average value for  $\sin^2\theta_W@{\rm KK}_5$  is : 0.04539642081910122
- • Standard deviation for  $\sin^2\theta_W@{\rm KK}_5$  is : 0.0350944219859215
- Minimum value for  $\sin^2 \theta_W$ @KK<sub>5</sub> is : 6.464799329763525e-06

- • Maximum value for  $\sin^2\theta_W@{\rm KK}_5$  is : 0.19679382444382307  $(\alpha)_{1Y}^{-1}$  :
  - The average value for  $(\alpha)_{1Y}^{-1}$  is: 73.22614952730565
  - Standard deviation for  $(\alpha)_{1Y}^{-1}$  is: 3.02369299854738
  - Minimum value for  $(\alpha)_{1Y}^{-1}$  is: 60.31724004823647
- Maximum value for  $(\alpha)_{1Y}^{-1}$  is : 77.73637645805941  $(\alpha)_{2L}^{-1}$  :
  - The average value for  $(\alpha)_{2L}^{-1}$  is : 5.779235659507797
  - Standard deviation for  $(\alpha)_{2L}^{-1}$  is : 4.426569385704222
  - Minimum value for  $(\alpha)_{2L}^{-1}$  is: 0.000793187458654715
- • Maximum value for  $(\alpha)_{2L}^{-1}$  is : 24.61842877200085  $(\alpha)_{3C}^{-1}$  :
  - The average value for  $(\alpha)_{3C}^{-1}$  is: 12.884852464320847
  - Standard deviation for  $(\alpha)_{3C}^{-1}$  is: 0.6216336425815737
  - Minimum value for  $(\alpha)_{3C}^{-1}$  is: 10.779466016775926
- • Maximum value for  $(\alpha)_{3C}^{-1}$  is : 15.035048072368802  $(\alpha)_{4C}^{-1}$  :
  - The average value for  $(\alpha)_{4C}^{-1}$  is: 9.831169614180386
  - Standard deviation for  $(\alpha)_{4C}^{-1}$  is : 1.6908650986010274
  - Minimum value for  $(\alpha)_{4C}^{-1}$  is: 4.670984399811434
- • Maximum value for  $(\alpha)_{4C}^{-1}$  is : 13.158916975793897  $(\alpha)_{2L}^{-1}$  :
  - $\bullet$  The average value for  $(\alpha)_{2L}^{-1}$  is : 6.4415822264751545
  - Standard deviation for  $(\alpha)_{2L}^{-1}$  is : 3.8467769461354666
  - Minimum value for  $(\alpha)_{2L}^{-1}$  is : 1.063286206041109
- Maximum value for  $(\alpha)_{2L}^{-1}$  is : 23.59003138192766  $(\alpha)_{3C}^{-1}$  :
  - The average value for  $(\alpha)_{3C}^{-1}$  is: 109.82933895761578
  - Standard deviation for  $(\alpha)_{3C}^{-1}$  is: 6.128378842341186
  - Minimum value for  $(\alpha)_{3C}^{-1}$  is: 84.61160720025853
  - Maximum value for  $(\alpha)_{3C}^{-1}$  is: 119.1909454498855