# SO11HosotaniDummyCase Failed-Global-Constr

### November 8, 2019

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

The following are the statistics for  ${\bf Param}$  :

#### k(GeV):

- $\bullet$  The average value for k(GeV) is : 131578.42129991786
- Standard deviation for k(GeV) is : 63317.243920534405
- Minimum value for k(GeV) is : 29745.70897245925
- Maximum value for k(GeV) is : 523128.26238726394

#### $z_L$ :

- $\bullet$  The average value for  $z_L$  is : 35.70620006971989
- $\bullet$  Standard deviation for  $z_L$  is : 3.768966744122469
- $\bullet$  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 : 0.2594396430297811
- $\bullet$  Standard deviation for  $c_0$  is : 0.11087437460619713
- Minimum value for  $c_0$  is : 0.0038
- Maximum value for  $c_0$  is : 0.6486000000000001

### $c_1$ :

- $\bullet$  The average value for  $c_1$  is : 0.13092681240605342
- Standard deviation for  $c_1$  is : 0.10968710143111245

- Maximum value for  $c_1$  is : 0.6766512788619184

 $c_2$ :

- The average value for  $c_2$  is : -0.6818151985400223
- Standard deviation for  $c_2$  is: 0.17010884471456683
- Minimum value for  $c_2$  is: -1.2083085984
- Maximum value for  $c_2$  is : -0.2005626374973603

 $c'_0$ :

- The average value for  $c'_0$  is : 0.5541615722855617
- Standard deviation for  $c'_0$  is : 0.08811827633189583
- Minimum value for  $c'_0$  is: 0.12614662911599314
- Maximum value for  $c'_0$  is : 0.74672244

 $\mu_1$ :

- The average value for  $\mu_1$  is : 15.450468379950179
- Standard deviation for  $\mu_1$  is : 4.30507131076582
- Minimum value for  $\mu_1$  is : 6.455597256463612
- $\bullet$  Maximum value for  $\mu_1$  is : 48.493708002999824

 $\mu_{11}$  :

- The average value for  $\mu_{11}$  is : 0.2746335645617079
- Standard deviation for  $\mu_{11}$  is : 0.1488603917982374
- Minimum value for  $\mu_{11}$  is : 0.058031393209039286
- Maximum value for  $\mu_{11}$  is : 1.975788793927787

 $\mu'_{11}$ :

- $\bullet$  The average value for  $\mu'_{11}$  is : 0.3309685941848252
- Standard deviation for  $\mu'_{11}$  is : 0.22155702677758765
- Minimum value for  $\mu'_{11}$  is : 0.0724
- $\bullet$  Maximum value for  $\mu'_{11}$  is : 2.2649599043224953

 $\tilde{\mu_2}$ :

- The average value for  $\tilde{\mu_2}$  is : 2.1614126132695595
- • Standard deviation for  $\tilde{\mu_2}$  is : 1.2224508711118018
- Minimum value for  $\tilde{\mu_2}$  is : 0.28205967380986124
- $\bullet$  Maximum value for  $\tilde{\mu_2}$  is : 9.44110403644189

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

### $m_H(GeV)$ :

- The average value for  $m_H(GeV)$  is : 122.84305475244341
- Standard deviation for  $m_H(GeV)$  is: 13.908945779152598
- Minimum value for  $m_H(GeV)$  is : 86.79643281789266
- Maximum value for  $m_H(GeV)$  is : 161.3841028130086

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

- The average value for  $m_{\psi_D}(GeV)$  is : 2734.574941233768
- Standard deviation for  $m_{\psi_D}(GeV)$  is : 1152.5425238706273
- Minimum value for  $m_{\psi_D}(GeV)$  is : 694.1733143694274
- Maximum value for  $m_{\psi_D}(GeV)$  is : 8729.66552372864

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

- The average value for  $m_{\tau}(GeV)$  is : 1.7769140679072317
- Standard deviation for  $m_{\tau}(GeV)$  is : 0.18247444573836716
- Minimum value for  $m_{\tau}(GeV)$  is : 1.2626331172704428
- Maximum value for  $m_{\tau}(GeV)$  is : 2.3080171899966304

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

- The average value for  $m_{\tau}^{(1)}(GeV)$  is : 1314.4519057039674
- Standard deviation for  $m_{\tau}^{(1)}(GeV)$  is : 769.7172127942016
- Minimum value for  $m_{\tau}^{(1)}(GeV)$  is : 561.3914538370027
- Maximum value for  $m_{\tau}^{(1)}(GeV)$  is : 7999.4966096127

### $m_{\nu}(eV)$ :

• The average value for  $m_{\nu}(eV)$  is: 0.08466320694690922

- Standard deviation for  $m_{\nu}(eV)$  is: 0.05824352936517575
- Minimum value for  $m_{\nu}(eV)$  is: 0.010304181831299724
- $\bullet$  Maximum value for  $m_{\nu}(eV)$  is : 0.5395087140150365  $m_b(GeV)$  :
  - The average value for  $m_b(GeV)$  is : 4.154620086446668
  - Standard deviation for  $m_b(GeV)$  is: 0.3284129932126657
  - Minimum value for  $m_b(GeV)$  is : 2.546837301042742
- $\bullet$  Maximum value for  $m_b(GeV)$  is : 5.766921175956056  $m_b^{(1)}(GeV):$ 
  - The average value for  $m_h^{(1)}(GeV)$  is: 4064.5677770533375
  - Standard deviation for  $m_b^{(1)}(GeV)$  is : 2013.1124820856567
  - Minimum value for  $m_h^{(1)}(GeV)$  is: 713.1222160799807
- $\bullet$  Maximum value for  $m_b^{(1)}(GeV)$  is : 15695.89257173306  $m_t(GeV)$  :
  - The average value for  $m_t(GeV)$  is : 175.51617266257458
  - Standard deviation for  $m_t(GeV)$  is: 15.376791636387408
  - Minimum value for  $m_t(GeV)$  is: 116.2851872676181
- Maximum value for  $m_t(GeV)$  is : 221.34674119746327  $\langle \theta_H \rangle ({\rm rad})$  :
  - The average value for  $\langle \theta_H \rangle$  (rad) is: 0.12697540754755748
  - Standard deviation for  $\langle \theta_H \rangle$  (rad) is: 0.06867992436284016
  - Minimum value for  $\langle \theta_H \rangle$  (rad) is : 0.026101363074784726
- $\bullet$  Maximum value for  $\langle \theta_H \rangle ({\rm rad})$  is : 0.43033189033086183  $m_Z(GeV):$ 
  - The average value for  $m_Z(GeV)$  is : 89.27350639451191
  - Standard deviation for  $m_Z(GeV)$  is: 6.874347593975904
  - Minimum value for  $m_Z(GeV)$  is : 66.47008184588033
  - Maximum value for  $m_Z(GeV)$  is : 111.28154325481512

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

- The average value for  $m_{W^{\pm}}(GeV)$  is : 78.27611817230638
- Standard deviation for  $m_{W^{\pm}}(GeV)$  is : 6.027513271917899
- Minimum value for  $m_{W^{\pm}}(GeV)$  is : 58.28179256786604
- Maximum value for  $m_{W^{\pm}}(GeV)$  is : 97.57303798191603

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

- The average value for  $m_{Z'}(GeV)$  is : 13664.293600690913
- Standard deviation for  $m_{Z'}(GeV)$  is: 6532.468539299777
- Minimum value for  $m_{Z'}(GeV)$  is: 3140.2627514624337
- Maximum value for  $m_{Z'}(GeV)$  is : 52363.544933920304

#### 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

#### $y_t$ :

- $\bullet$  The average value for  $y_t$  is : 0.981048211236296
- Standard deviation for  $y_t$  is: 0.013373492752483427
- Minimum value for  $y_t$  is : 0.9009470970050025
- $\bullet$  Maximum value for  $y_t$  is : 0.9909915464253298

#### $\tau_H$ :

- The average value for  $\tau_H$  is : 28.570658174713376
- Standard deviation for  $\tau_H$  is : 8.262779198087452
- Minimum value for  $\tau_H$  is : 11.672665243464348
- $\bullet$  Maximum value for  $\tau_H$  is : 55.155977856324014

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

- The average value for  $\sigma(hh)(fb)$  is : 17.914329147320533
- Standard deviation for  $\sigma(hh)(fb)$  is: 6.348018422792773

- $\bullet$  Minimum value for  $\sigma(hh)(fb)$  is : 4.647728334312532
- $\bullet$  Maximum value for  $\sigma(hh)(fb)$  is : 55.652538431163144

### $\Delta_{HH}$ :

- $\bullet$  The average value for  $\Delta_{HH}$  is : 0.12242119934844437
- Standard deviation for  $\Delta_{HH}$  is : 0.040461698414371104
- $\bullet$  Minimum value for  $\Delta_{HH}$  is : 0.033834985074388126
- $\bullet$  Maximum value for  $\Delta_{HH}$  is : 0.37471161486103505

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

## $\chi_G^2$ :

- $\bullet$  The average value for  $\chi^2_G$  is : 391.3325572836604
- • Standard deviation for  $\chi^2_G$  is : 258.853816629113
- • Minimum value for  $\chi^2_G$  is : 20.758817868524343
- $\bullet$  Maximum value for  $\chi^2_G$  is : 999.9465022756867