# SO11HosotaniDummyCase Failed-Global-Constr

### October 31, 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):

- The average value for k(GeV) is : 131419.02010060567
- Standard deviation for k(GeV) is : 61774.595280730384
- Minimum value for k(GeV) is : 29745.70897245925
- Maximum value for k(GeV) is: 523128.26238726394

#### $z_L$ :

- The average value for  $z_L$  is : 35.6584250916059
- $\bullet$  Standard deviation for  $z_L$  is : 3.6072771335844265
- $\bullet$  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 : 0.2827130836659543
- Standard deviation for  $c_0$  is : 0.13030320772803325
- Minimum value for  $c_0$  is : 0.0025213920320000037
- Maximum value for  $c_0$  is : 0.935307633568

#### $c_1$ :

- The average value for  $c_1$  is : 0.12691591990562567
- Standard deviation for  $c_1$  is : 0.10468208195066353

- Maximum value for  $c_1$  is : 0.6766512788619184

 $c_2$ :

- $\bullet$  The average value for  $c_2$  is : -0.6655735692167793
- Standard deviation for  $c_2$  is: 0.17679249023165308
- 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 : 0.5444842995070358
- Standard deviation for  $c'_0$  is : 0.1076241854583433
- $\bullet$  Minimum value for  $c_0'$  is : 0.062000923215999953
- Maximum value for  $c'_0$  is : 0.8767618044000001

 $\mu_1$ :

- $\bullet$  The average value for  $\mu_1$  is : 15.183728748218813
- Standard deviation for  $\mu_1$  is : 4.4832750415923375
- Minimum value for  $\mu_1$  is : 6.455597256463612
- Maximum value for  $\mu_1$  is : 64.49975233857032

 $\mu_{11}$  :

- The average value for  $\mu_{11}$  is : 0.26050335763391497
- Standard deviation for  $\mu_{11}$  is : 0.14413825228040972
- Minimum value for  $\mu_{11}$  is : 0.0183749999999999
- Maximum value for  $\mu_{11}$  is : 1.975788793927787

 $\mu'_{11}$ :

- $\bullet$  The average value for  $\mu'_{11}$  is : 0.31515955306194543
- Standard deviation for  $\mu'_{11}$  is : 0.2219418904312501
- Minimum value for  $\mu'_{11}$  is : 0.0531
- $\bullet$  Maximum value for  $\mu'_{11}$  is : 2.2649599043224953

 $\tilde{\mu_2}$ :

- The average value for  $\tilde{\mu_2}$  is : 2.003205893659651
- Standard deviation for  $\tilde{\mu_2}$  is : 1.162020317625764
- Minimum value for  $\tilde{\mu_2}$  is : 0.1649601732422849
- 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: 122.26177174433124
- Standard deviation for  $m_H(GeV)$  is : 20.855756666334706
- Minimum value for  $m_H(GeV)$  is : 52.33436917468068
- Maximum value for  $m_H(GeV)$  is : 202.0744221515794

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

- The average value for  $m_{\psi_D}(GeV)$  is : 2786.818032725333
- Standard deviation for  $m_{\psi_D}(GeV)$  is : 1179.6792882369941
- Minimum value for  $m_{\psi_D}(GeV)$  is : 694.1733143694274
- Maximum value for  $m_{\psi_D}(GeV)$  is : 10442.777162449904

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

- The average value for  $m_{\tau}(GeV)$  is : 1.7617961030799212
- Standard deviation for  $m_{\tau}(GeV)$  is : 0.3775348610732652
- Minimum value for  $m_{\tau}(GeV)$  is : 0.5420603757183141
- Maximum value for  $m_{\tau}(GeV)$  is : 2.976857176277222

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

- The average value for  $m_{\tau}^{(1)}(GeV)$  is: 1358.144909827302
- Standard deviation for  $m_{\tau}^{(1)}(GeV)$  is: 842.9429928592484
- Minimum value for  $m_{\tau}^{(1)}(GeV)$  is : 560.0116961150059
- Maximum value for  $m_{\tau}^{(1)}(GeV)$  is : 9408.50360034721  $m_{\nu}(eV)$  :
  - The average value for  $m_{\nu}(eV)$  is: 0.09264627886559246

- Standard deviation for  $m_{\nu}(eV)$  is : 0.07167004273906506
- Minimum value for  $m_{\nu}(eV)$  is: 0.006231557258860766
- $\bullet$  Maximum value for  $m_{\nu}(eV)$  is : 0.919236356003685  $m_b(GeV)$  :
  - The average value for  $m_b(GeV)$  is : 4.132611529429324
  - Standard deviation for  $m_b(GeV)$  is: 0.6196872582526647
  - Minimum value for  $m_b(GeV)$  is: 0.42696917510732646
- $\bullet$  Maximum value for  $m_b(GeV)$  is : 7.649928503463035  $m_b^{(1)}(GeV):$ 
  - The average value for  $m_h^{(1)}(GeV)$  is : 3965.1886597234643
  - Standard deviation for  $m_b^{(1)}(GeV)$  is : 2004.357281422826
  - Minimum value for  $m_h^{(1)}(GeV)$  is: 712.5212477201161
- $\bullet$  Maximum value for  $m_b^{(1)}(GeV)$  is : 15695.89257173306  $m_t(GeV)$  :
  - The average value for  $m_t(GeV)$  is: 168.71312548991307
  - Standard deviation for  $m_t(GeV)$  is : 24.56516026831626
  - Minimum value for  $m_t(GeV)$  is: 58.15672747868103
- Maximum value for  $m_t(GeV)$  is : 256.0695973997997  $\langle \theta_H \rangle (rads)$  :
  - The average value for  $\langle \theta_H \rangle (rads)$  is: 0.12279779747168598
  - Standard deviation for  $\langle \theta_H \rangle (rads)$  is: 0.06565765614471793
  - Minimum value for  $\langle \theta_H \rangle (rads)$  is: 0.025784131883611755
- $\bullet$  Maximum value for  $\langle \theta_H \rangle (rads)$  is : 0.4766952636684142  $m_Z(GeV)$  :
  - The average value for  $m_Z(GeV)$  is: 87.50542563760057
  - Standard deviation for  $m_Z(GeV)$  is: 10.709336519070103
  - Minimum value for  $m_Z(GeV)$  is : 47.13680379892037
  - Maximum value for  $m_Z(GeV)$  is: 137.79573183204448

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

- The average value for  $m_{W^{\pm}}(GeV)$  is : 76.72584302511356
- Standard deviation for  $m_{W^{\pm}}(GeV)$  is : 9.390079148557577
- Minimum value for  $m_{W^{\pm}}(GeV)$  is : 41.33013447599875
- $\bullet$  Maximum value for  $m_{W^\pm}(GeV)$  is : 120.82100753228207  $m_{Z'}(GeV)$  :
  - The average value for  $m_{Z'}(GeV)$  is : 13662.775564880187
  - Standard deviation for  $m_{Z'}(GeV)$  is : 6415.558862130382
  - Minimum value for  $m_{Z'}(GeV)$  is : 3140.2627514624337
  - Maximum value for  $m_{Z'}(GeV)$  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: 0.9741982603919681
- Standard deviation for  $y_t$  is : 0.12226201098612838
- Minimum value for  $y_t$  is : -0.9902971840968053
- $\bullet$  Maximum value for  $y_t$  is : 0.9909997039996103

### $\tau_H$ :

- The average value for  $\tau_H$  is : 29.759006899238635
- Standard deviation for  $\tau_H$  is : 11.693114145728932
- Minimum value for  $\tau_H$  is : 2.648522163762347
- $\bullet$  Maximum value for  $\tau_H$  is : 89.19201917955934

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

- The average value for  $\sigma(hh)(fb)$  is : 23.617803034039504
- Standard deviation for  $\sigma(hh)(fb)$  is: 18.765384892011678

- $\bullet$  Minimum value for  $\sigma(hh)(fb)$  is : 2.819584522151383
- Maximum value for  $\sigma(hh)(fb)$  is : 250.6469840585535

### $\Delta_{HH}$ :

- $\bullet$  The average value for  $\Delta_{HH}$  is : 0.16017964993241582
- Standard deviation for  $\Delta_{HH}$  is : 0.12938625746069896
- $\bullet$  Minimum value for  $\Delta_{HH}$  is : 0.01923828302564253
- $\bullet$  Maximum value for  $\Delta_{HH}$  is : 1.7088321202201058

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

## $\chi_G^2$ :

- $\bullet$  The average value for  $\chi^2_G$  is : 1167.5105864959694
- • Standard deviation for  $\chi_G^2$  is : 1193.2007108984717
- $\bullet$  Maximum value for  $\chi^2_G$  is : 4995.513533168523