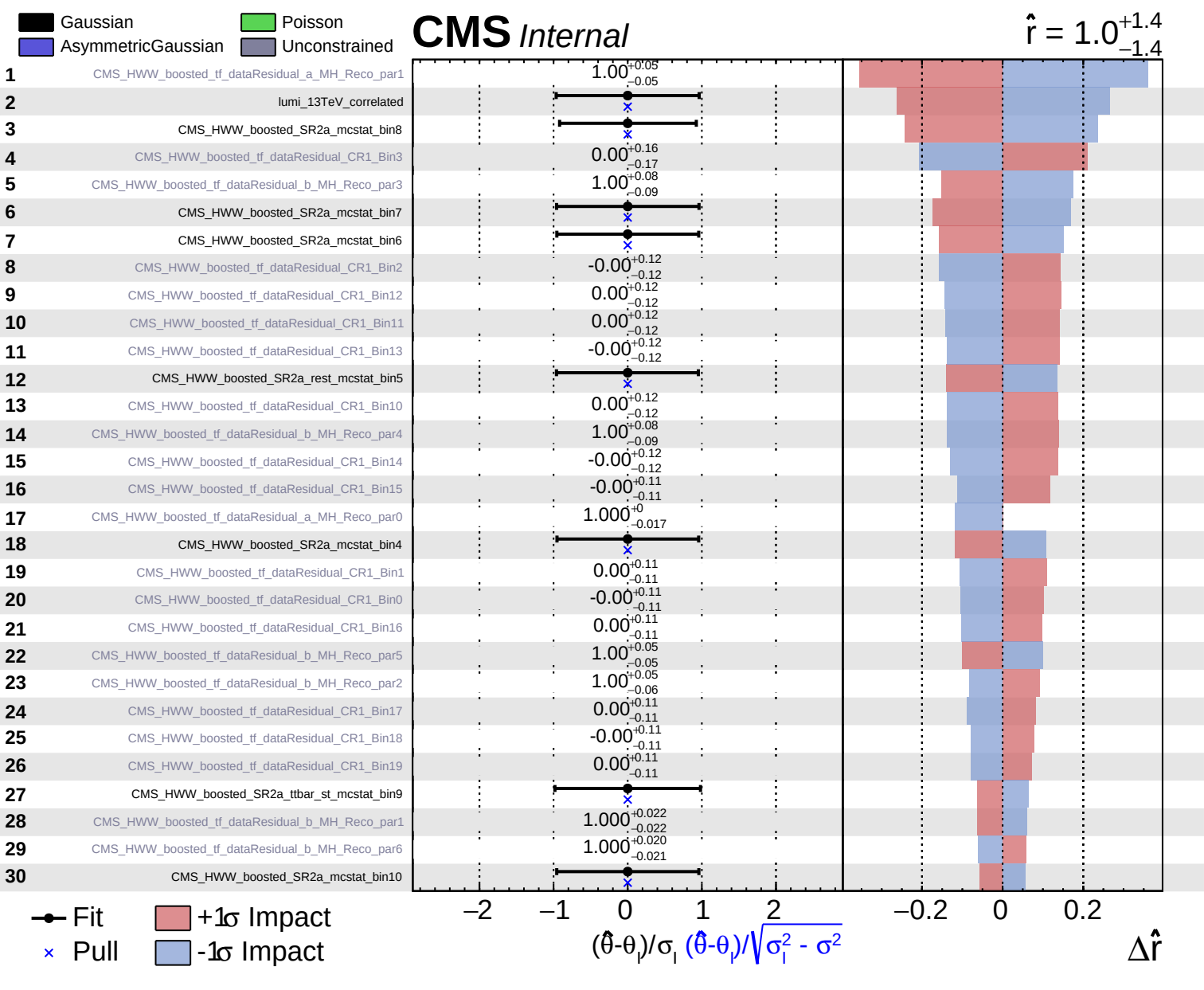
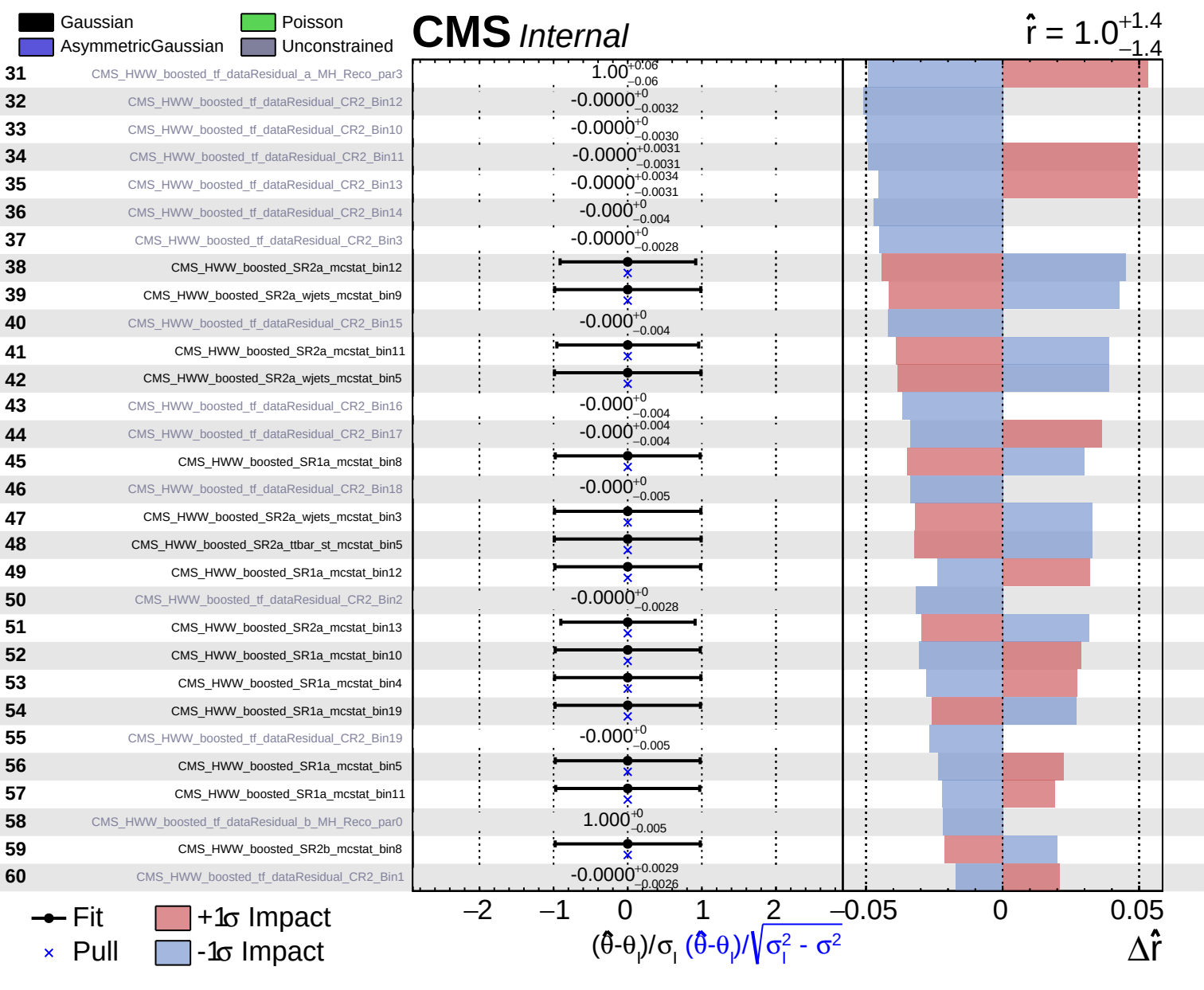
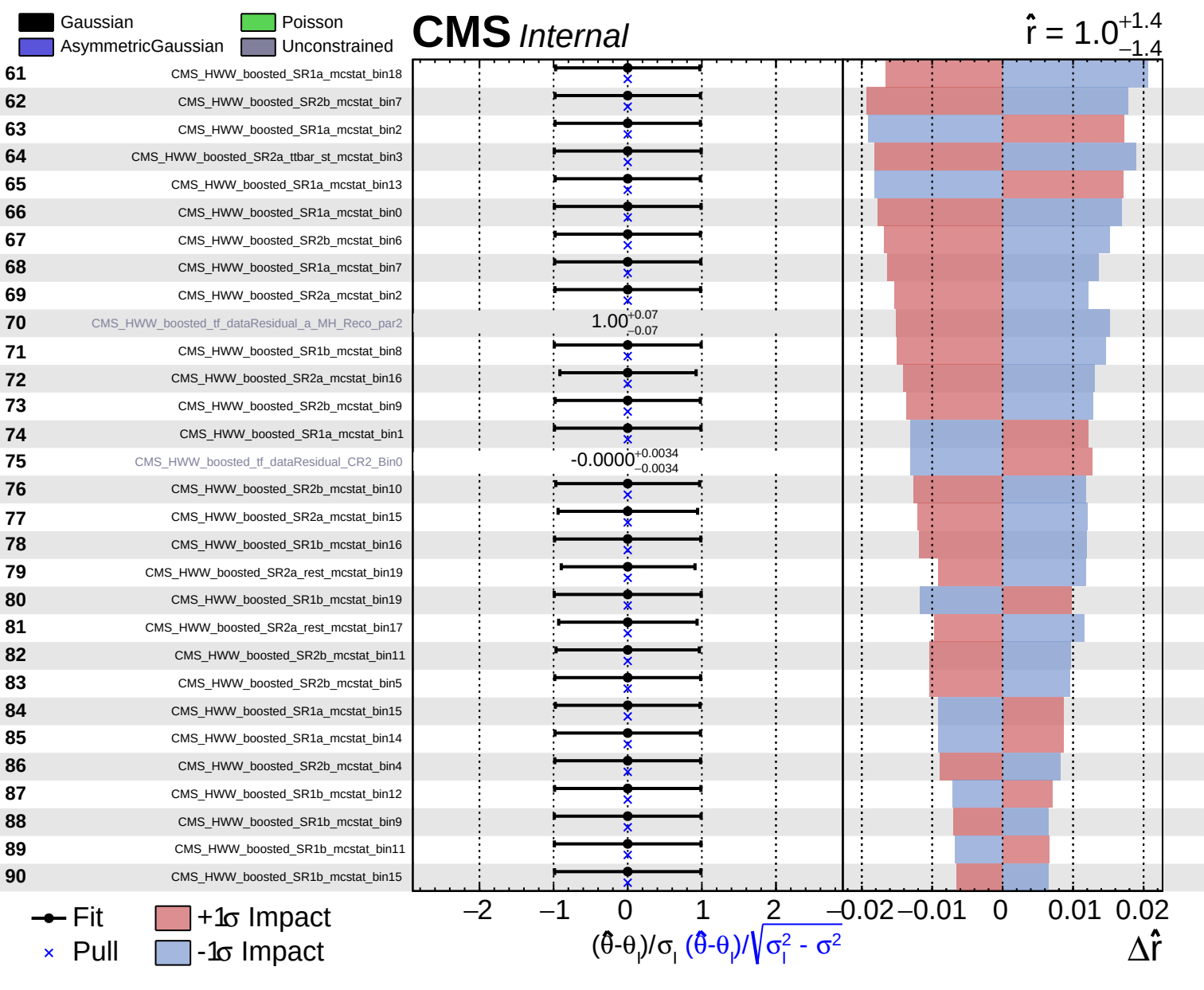
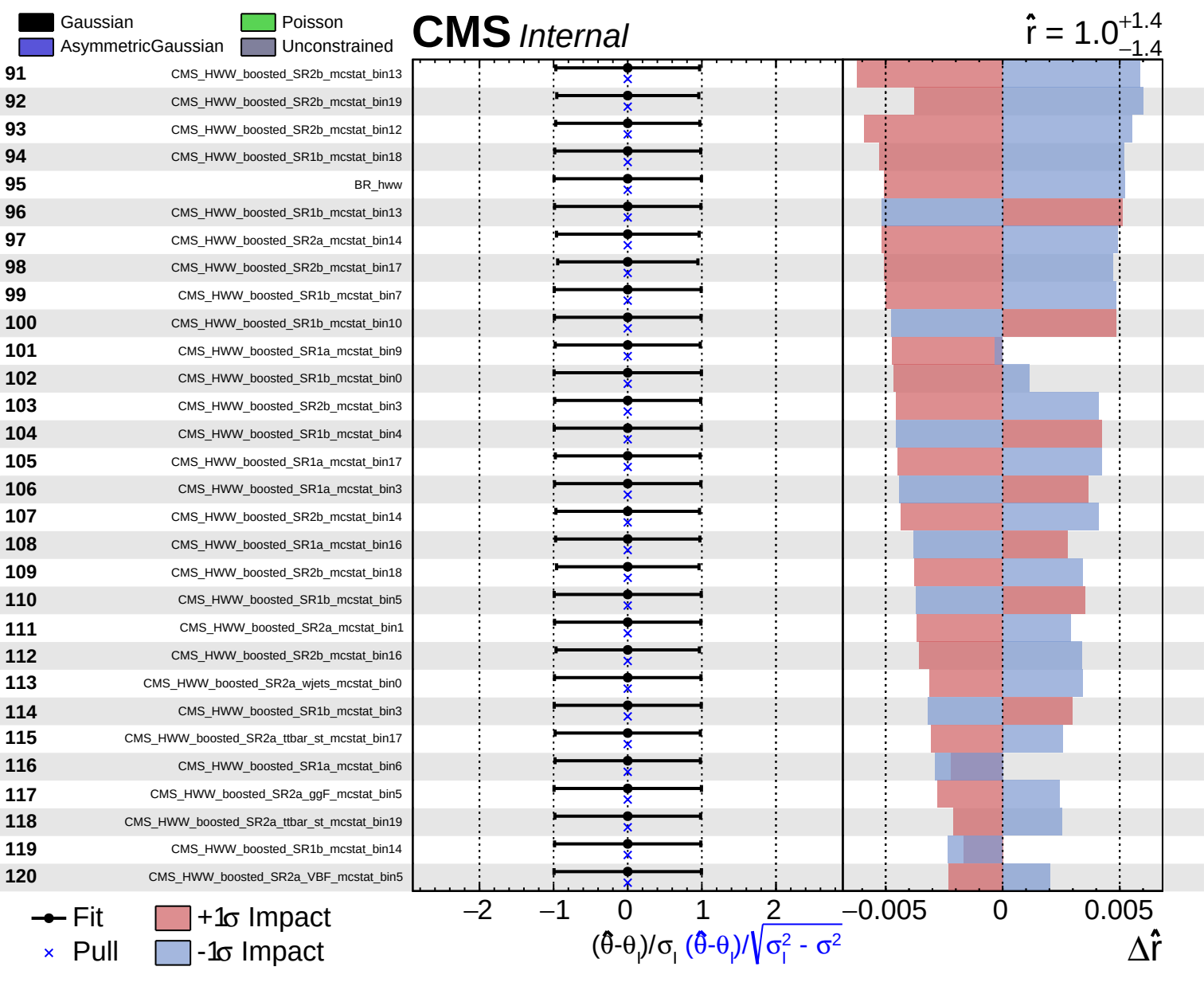
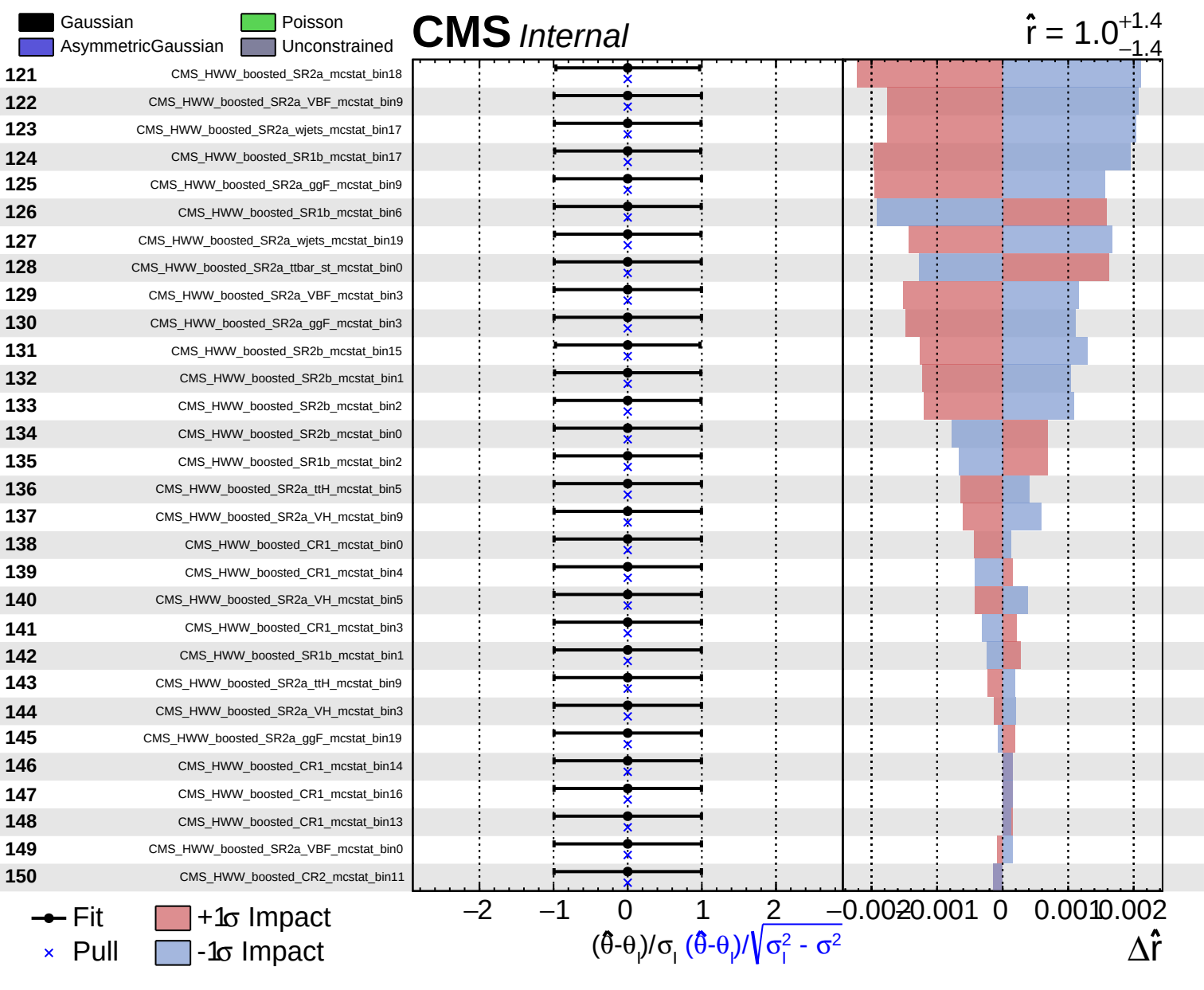
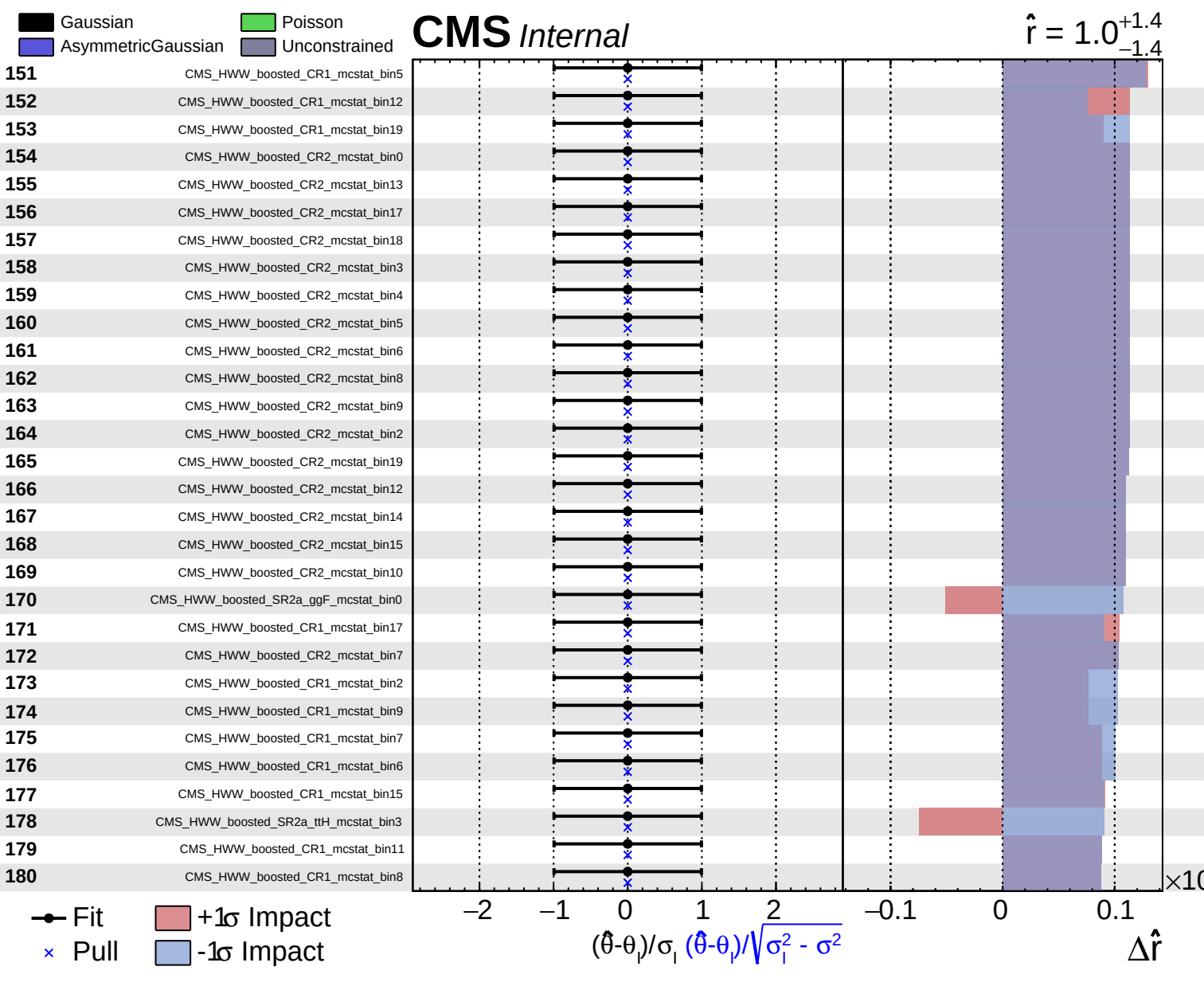

Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
1 CMS_HWW_boosted_tf_dataResidual_a_MH_Reco_par1
2 lumi_13TeV_correlated
3 CMS_HWW_boosted_SR2a_mcstat_bin8
4 CMS_HWW_boosted_tf_dataResidual_CR1_Bin3
5 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par3
6 CMS_HWW_boosted_SR2a_mcstat_bin7
7 CMS_HWW_boosted_SR2a_mcstat_bin6
8 CMS_HWW_boosted_tf_dataResidual_CR1_Bin2
9 CMS_HWW_boosted_tf_dataResidual_CR1_Bin12
10 CMS_HWW_boosted_tf_dataResidual_CR1_Bin11
11 CMS_HWW_boosted_tf_dataResidual_CR1_Bin13
12 CMS_HWW_boosted_SR2a_rest_mcstat_bin5
13 CMS_HWW_boosted_tf_dataResidual_CR1_Bin10
14 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par4
15 CMS_HWW_boosted_tf_dataResidual_CR1_Bin14
16 CMS_HWW_boosted_tf_dataResidual_CR1_Bin15
17 CMS_HWW_boosted_tf_dataResidual_a_MH_Reco_par0
18 CMS_HWW_boosted_SR2a_mcstat_bin4
19 CMS_HWW_boosted_tf_dataResidual_CR1_Bin1
20 CMS_HWW_boosted_tf_dataResidual_CR1_Bin0
21 CMS_HWW_boosted_tf_dataResidual_CR1_Bin16
22 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par5
23 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par2
24 CMS_HWW_boosted_tf_dataResidual_CR1_Bin17
25 CMS_HWW_boosted_tf_dataResidual_CR1_Bin18
26 CMS_HWW_boosted_tf_dataResidual_CR1_Bin19
27 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin9
28 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par1
29 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par6
30 CMS_HWW_boosted_SR2a_mcstat_bin10
1.00 +0.05 −0.05
0.00 +0.16 −0.17
1.00 +0.08 −0.09
-0.00 +0.12 −0.12
0.00 +0.12 −0.12
0.00 +0.12 −0.12
-0.00 +0.12 −0.12
0.00 +0.12 −0.12
1.00 +0.08 −0.09
-0.00 +0.12 −0.12
-0.00 +0.11 −0.11
1.000 +0 −0.017
0.00 +0.11 −0.11
-0.00 +0.11 −0.11
0.00 +0.11 −0.11
1.00 +0.05 −0.05
1.00 +0.05 −0.06
0.00 +0.11 −0.11
-0.00 +0.11 −0.11
0.00 +0.11 −0.11
1.000 +0.022 −0.022
1.000 +0.020 −0.021
−2 −1 0 1 2
(θ̂-θ_I)/σ_I
−0.2 0 0.2
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂
Fit
Pull
+1σ Impact
-1σ Impact

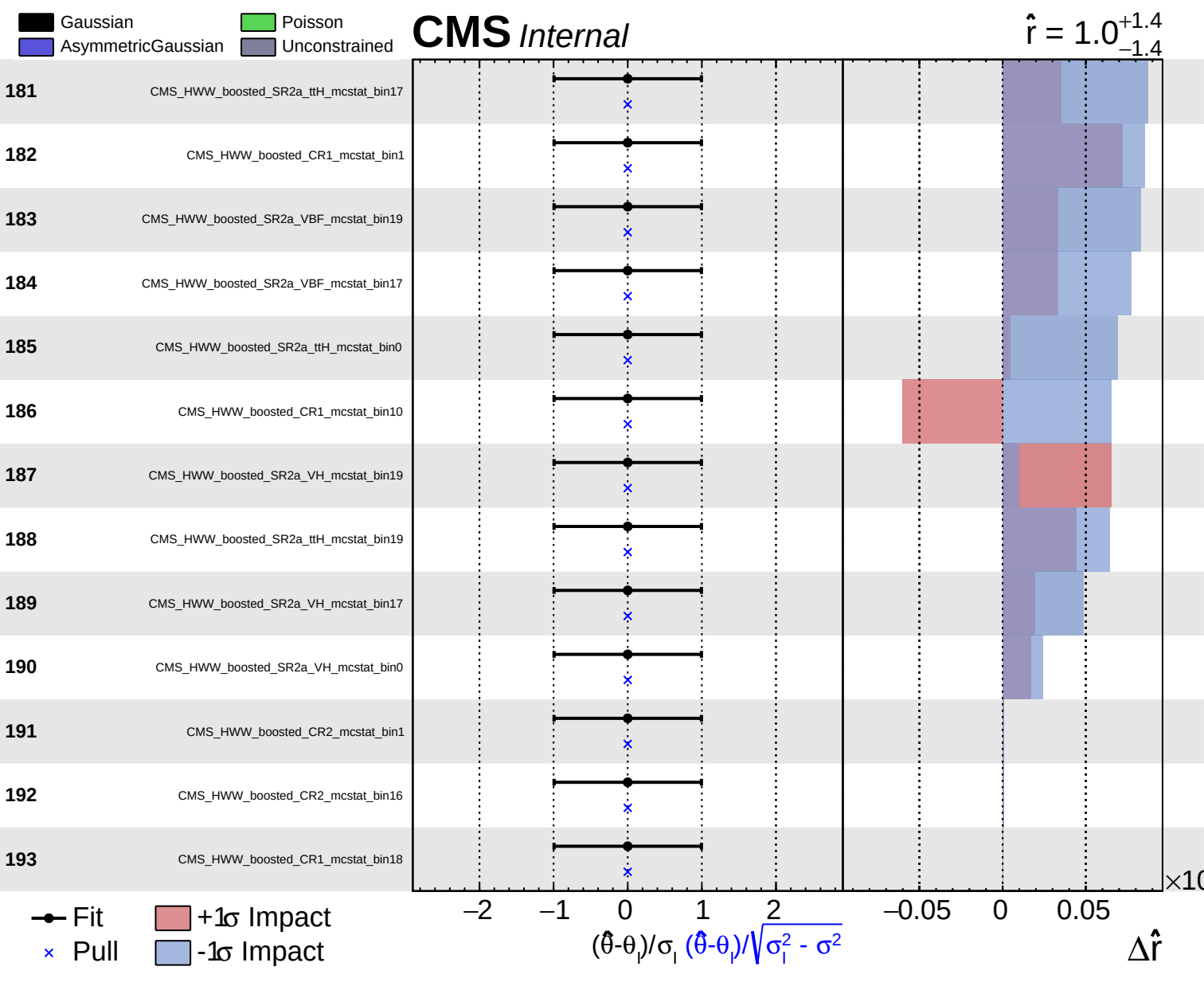

Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
31 CMS_HWW_boosted_tf_dataResidual_a_MH_Reco_par3 1.00 +0.06 −0.06
32 CMS_HWW_boosted_tf_dataResidual_CR2_Bin12 -0.0000 +0 −0.0032
33 CMS_HWW_boosted_tf_dataResidual_CR2_Bin10 -0.0000 +0 −0.0030
34 CMS_HWW_boosted_tf_dataResidual_CR2_Bin11 -0.0000 +0.0031 −0.0031
35 CMS_HWW_boosted_tf_dataResidual_CR2_Bin13 -0.0000 +0.0034 −0.0031
36 CMS_HWW_boosted_tf_dataResidual_CR2_Bin14 -0.000 +0 −0.004
37 CMS_HWW_boosted_tf_dataResidual_CR2_Bin3 -0.0000 +0 −0.0028
38 CMS_HWW_boosted_SR2a_mcstat_bin12
39 CMS_HWW_boosted_SR2a_wjets_mcstat_bin9
40 CMS_HWW_boosted_tf_dataResidual_CR2_Bin15 -0.000 +0 −0.004
41 CMS_HWW_boosted_SR2a_mcstat_bin11
42 CMS_HWW_boosted_SR2a_wjets_mcstat_bin5
43 CMS_HWW_boosted_tf_dataResidual_CR2_Bin16 -0.000 +0 −0.004
44 CMS_HWW_boosted_tf_dataResidual_CR2_Bin17 -0.000 +0.004 −0.004
45 CMS_HWW_boosted_SR1a_mcstat_bin8
46 CMS_HWW_boosted_tf_dataResidual_CR2_Bin18 -0.000 +0 −0.005
47 CMS_HWW_boosted_SR2a_wjets_mcstat_bin3
48 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin5
49 CMS_HWW_boosted_SR1a_mcstat_bin12
50 CMS_HWW_boosted_tf_dataResidual_CR2_Bin2 -0.0000 +0 −0.0028
51 CMS_HWW_boosted_SR2a_mcstat_bin13
52 CMS_HWW_boosted_SR1a_mcstat_bin10
53 CMS_HWW_boosted_SR1a_mcstat_bin4
54 CMS_HWW_boosted_SR1a_mcstat_bin19
55 CMS_HWW_boosted_tf_dataResidual_CR2_Bin19 -0.000 +0 −0.005
56 CMS_HWW_boosted_SR1a_mcstat_bin5
57 CMS_HWW_boosted_SR1a_mcstat_bin11
58 CMS_HWW_boosted_tf_dataResidual_b_MH_Reco_par0 1.000 +0 −0.005
59 CMS_HWW_boosted_SR2b_mcstat_bin8
60 CMS_HWW_boosted_tf_dataResidual_CR2_Bin1 -0.0000 +0.0029 −0.0026
−2 −1 0 1 2
(θ̂-θ_I)/σ_I
−0.05 0 0.05
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂
Fit
Pull
+1σ Impact
-1σ Impact


Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
$\hat{r} = 1.0^{+1.4}_{-1.4}$
61 CMS_HWW_boosted_SR1a_mcstat_bin18
62 CMS_HWW_boosted_SR2b_mcstat_bin7
63 CMS_HWW_boosted_SR1a_mcstat_bin2
64 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin3
65 CMS_HWW_boosted_SR1a_mcstat_bin13
66 CMS_HWW_boosted_SR1a_mcstat_bin0
67 CMS_HWW_boosted_SR2b_mcstat_bin6
68 CMS_HWW_boosted_SR1a_mcstat_bin7
69 CMS_HWW_boosted_SR2a_mcstat_bin2
70 CMS_HWW_boosted_tf_dataResidual_a_MH_Reco_par2
$1.00^{+0.07}_{-0.07}$
71 CMS_HWW_boosted_SR1b_mcstat_bin8
72 CMS_HWW_boosted_SR2a_mcstat_bin16
73 CMS_HWW_boosted_SR2b_mcstat_bin9
74 CMS_HWW_boosted_SR1a_mcstat_bin1
75 CMS_HWW_boosted_tf_dataResidual_CR2_Bin0
$-0.0000^{+0.0034}_{-0.0034}$
76 CMS_HWW_boosted_SR2b_mcstat_bin10
77 CMS_HWW_boosted_SR2a_mcstat_bin15
78 CMS_HWW_boosted_SR1b_mcstat_bin16
79 CMS_HWW_boosted_SR2a_rest_mcstat_bin19
80 CMS_HWW_boosted_SR1b_mcstat_bin19
81 CMS_HWW_boosted_SR2a_rest_mcstat_bin17
82 CMS_HWW_boosted_SR2b_mcstat_bin11
83 CMS_HWW_boosted_SR2b_mcstat_bin5
84 CMS_HWW_boosted_SR1a_mcstat_bin15
85 CMS_HWW_boosted_SR1a_mcstat_bin14
86 CMS_HWW_boosted_SR2b_mcstat_bin4
87 CMS_HWW_boosted_SR1b_mcstat_bin12
88 CMS_HWW_boosted_SR1b_mcstat_bin9
89 CMS_HWW_boosted_SR1b_mcstat_bin11
90 CMS_HWW_boosted_SR1b_mcstat_bin15
Fit
Pull
+1σ Impact
-1σ Impact
−2 −1 0 1 2
$(\hat{\theta}-\theta_I)/\sigma_I$
−0.02 −0.01 0 0.01 0.02
$(\hat{\theta}-\theta_I)/\sqrt{\sigma_I^2 - \sigma^2}$
$\Delta\hat{r}$


Gaussian
Poisson
AsymmetricGaussian
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
91 CMS_HWW_boosted_SR2b_mcstat_bin13
92 CMS_HWW_boosted_SR2b_mcstat_bin19
93 CMS_HWW_boosted_SR2b_mcstat_bin12
94 CMS_HWW_boosted_SR1b_mcstat_bin18
95 BR_hww
96 CMS_HWW_boosted_SR1b_mcstat_bin13
97 CMS_HWW_boosted_SR2a_mcstat_bin14
98 CMS_HWW_boosted_SR2b_mcstat_bin17
99 CMS_HWW_boosted_SR1b_mcstat_bin7
100 CMS_HWW_boosted_SR1b_mcstat_bin10
101 CMS_HWW_boosted_SR1a_mcstat_bin9
102 CMS_HWW_boosted_SR1b_mcstat_bin0
103 CMS_HWW_boosted_SR2b_mcstat_bin3
104 CMS_HWW_boosted_SR1b_mcstat_bin4
105 CMS_HWW_boosted_SR1a_mcstat_bin17
106 CMS_HWW_boosted_SR1a_mcstat_bin3
107 CMS_HWW_boosted_SR2b_mcstat_bin14
108 CMS_HWW_boosted_SR1a_mcstat_bin16
109 CMS_HWW_boosted_SR2b_mcstat_bin18
110 CMS_HWW_boosted_SR1b_mcstat_bin5
111 CMS_HWW_boosted_SR2a_mcstat_bin1
112 CMS_HWW_boosted_SR2b_mcstat_bin16
113 CMS_HWW_boosted_SR2a_wjets_mcstat_bin0
114 CMS_HWW_boosted_SR1b_mcstat_bin3
115 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin17
116 CMS_HWW_boosted_SR1a_mcstat_bin6
117 CMS_HWW_boosted_SR2a_ggF_mcstat_bin5
118 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin19
119 CMS_HWW_boosted_SR1b_mcstat_bin14
120 CMS_HWW_boosted_SR2a_VBF_mcstat_bin5
−2
−1
0
1
2
−0.005
0
0.005
Fit
Pull
+1σ Impact
-1σ Impact
(θ̂-θ_I)/σ_I
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂


Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
121 CMS_HWW_boosted_SR2a_mcstat_bin18
122 CMS_HWW_boosted_SR2a_VBF_mcstat_bin9
123 CMS_HWW_boosted_SR2a_wjets_mcstat_bin17
124 CMS_HWW_boosted_SR1b_mcstat_bin17
125 CMS_HWW_boosted_SR2a_ggF_mcstat_bin9
126 CMS_HWW_boosted_SR1b_mcstat_bin6
127 CMS_HWW_boosted_SR2a_wjets_mcstat_bin19
128 CMS_HWW_boosted_SR2a_ttbar_st_mcstat_bin0
129 CMS_HWW_boosted_SR2a_VBF_mcstat_bin3
130 CMS_HWW_boosted_SR2a_ggF_mcstat_bin3
131 CMS_HWW_boosted_SR2b_mcstat_bin15
132 CMS_HWW_boosted_SR2b_mcstat_bin1
133 CMS_HWW_boosted_SR2b_mcstat_bin2
134 CMS_HWW_boosted_SR2b_mcstat_bin0
135 CMS_HWW_boosted_SR1b_mcstat_bin2
136 CMS_HWW_boosted_SR2a_ttH_mcstat_bin5
137 CMS_HWW_boosted_SR2a_VH_mcstat_bin9
138 CMS_HWW_boosted_CR1_mcstat_bin0
139 CMS_HWW_boosted_CR1_mcstat_bin4
140 CMS_HWW_boosted_SR2a_VH_mcstat_bin5
141 CMS_HWW_boosted_CR1_mcstat_bin3
142 CMS_HWW_boosted_SR1b_mcstat_bin1
143 CMS_HWW_boosted_SR2a_ttH_mcstat_bin9
144 CMS_HWW_boosted_SR2a_VH_mcstat_bin3
145 CMS_HWW_boosted_SR2a_ggF_mcstat_bin19
146 CMS_HWW_boosted_CR1_mcstat_bin14
147 CMS_HWW_boosted_CR1_mcstat_bin16
148 CMS_HWW_boosted_CR1_mcstat_bin13
149 CMS_HWW_boosted_SR2a_VBF_mcstat_bin0
150 CMS_HWW_boosted_CR2_mcstat_bin11
−2
−1
0
1
2
−0.002
−0.001
0
0.001
0.002
Fit
Pull
+1σ Impact
-1σ Impact
(θ̂-θ_I)/σ_I
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂


Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
151 CMS_HWW_boosted_CR1_mcstat_bin5
152 CMS_HWW_boosted_CR1_mcstat_bin12
153 CMS_HWW_boosted_CR1_mcstat_bin19
154 CMS_HWW_boosted_CR2_mcstat_bin0
155 CMS_HWW_boosted_CR2_mcstat_bin13
156 CMS_HWW_boosted_CR2_mcstat_bin17
157 CMS_HWW_boosted_CR2_mcstat_bin18
158 CMS_HWW_boosted_CR2_mcstat_bin3
159 CMS_HWW_boosted_CR2_mcstat_bin4
160 CMS_HWW_boosted_CR2_mcstat_bin5
161 CMS_HWW_boosted_CR2_mcstat_bin6
162 CMS_HWW_boosted_CR2_mcstat_bin8
163 CMS_HWW_boosted_CR2_mcstat_bin9
164 CMS_HWW_boosted_CR2_mcstat_bin2
165 CMS_HWW_boosted_CR2_mcstat_bin19
166 CMS_HWW_boosted_CR2_mcstat_bin12
167 CMS_HWW_boosted_CR2_mcstat_bin14
168 CMS_HWW_boosted_CR2_mcstat_bin15
169 CMS_HWW_boosted_CR2_mcstat_bin10
170 CMS_HWW_boosted_SR2a_ggF_mcstat_bin0
171 CMS_HWW_boosted_CR1_mcstat_bin17
172 CMS_HWW_boosted_CR2_mcstat_bin7
173 CMS_HWW_boosted_CR1_mcstat_bin2
174 CMS_HWW_boosted_CR1_mcstat_bin9
175 CMS_HWW_boosted_CR1_mcstat_bin7
176 CMS_HWW_boosted_CR1_mcstat_bin6
177 CMS_HWW_boosted_CR1_mcstat_bin15
178 CMS_HWW_boosted_SR2a_ttH_mcstat_bin3
179 CMS_HWW_boosted_CR1_mcstat_bin11
180 CMS_HWW_boosted_CR1_mcstat_bin8
×10
−2
−1
0
1
2
−0.1
0
0.1
Fit
Pull
+1σ Impact
-1σ Impact
(θ̂-θ_I)/σ_I
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂


Gaussian
AsymmetricGaussian
Poisson
Unconstrained
CMS Internal
r̂ = 1.0 +1.4 −1.4
181 CMS_HWW_boosted_SR2a_ttH_mcstat_bin17
182 CMS_HWW_boosted_CR1_mcstat_bin1
183 CMS_HWW_boosted_SR2a_VBF_mcstat_bin19
184 CMS_HWW_boosted_SR2a_VBF_mcstat_bin17
185 CMS_HWW_boosted_SR2a_ttH_mcstat_bin0
186 CMS_HWW_boosted_CR1_mcstat_bin10
187 CMS_HWW_boosted_SR2a_VH_mcstat_bin19
188 CMS_HWW_boosted_SR2a_ttH_mcstat_bin19
189 CMS_HWW_boosted_SR2a_VH_mcstat_bin17
190 CMS_HWW_boosted_SR2a_VH_mcstat_bin0
191 CMS_HWW_boosted_CR2_mcstat_bin1
192 CMS_HWW_boosted_CR2_mcstat_bin16
193 CMS_HWW_boosted_CR1_mcstat_bin18
−2
−1
0
1
2
−0.05
0
0.05
×10
Fit
Pull
+1σ Impact
-1σ Impact
(θ̂-θ_I)/σ_I
(θ̂-θ_I)/√(σ_I² - σ²)
Δr̂