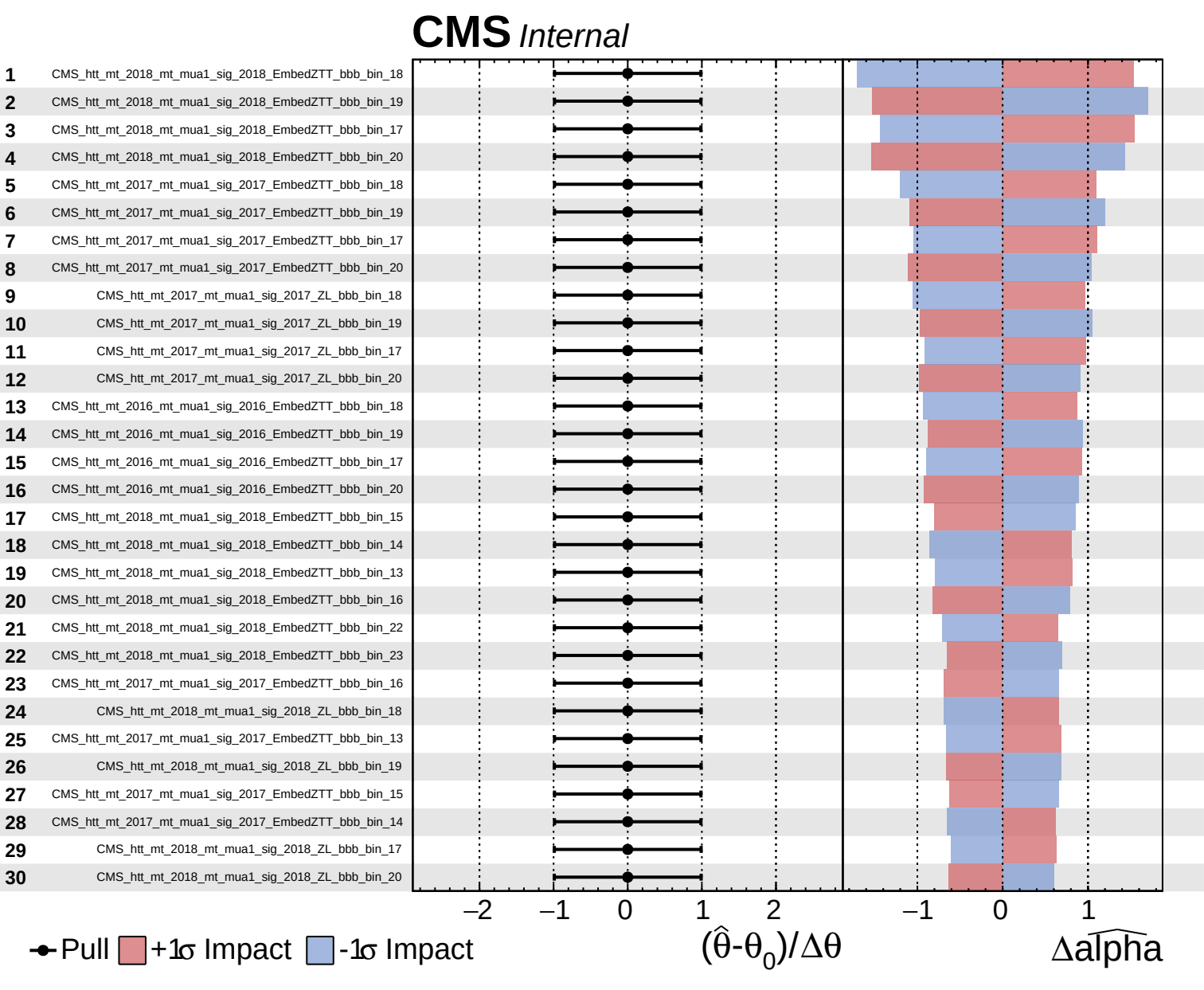
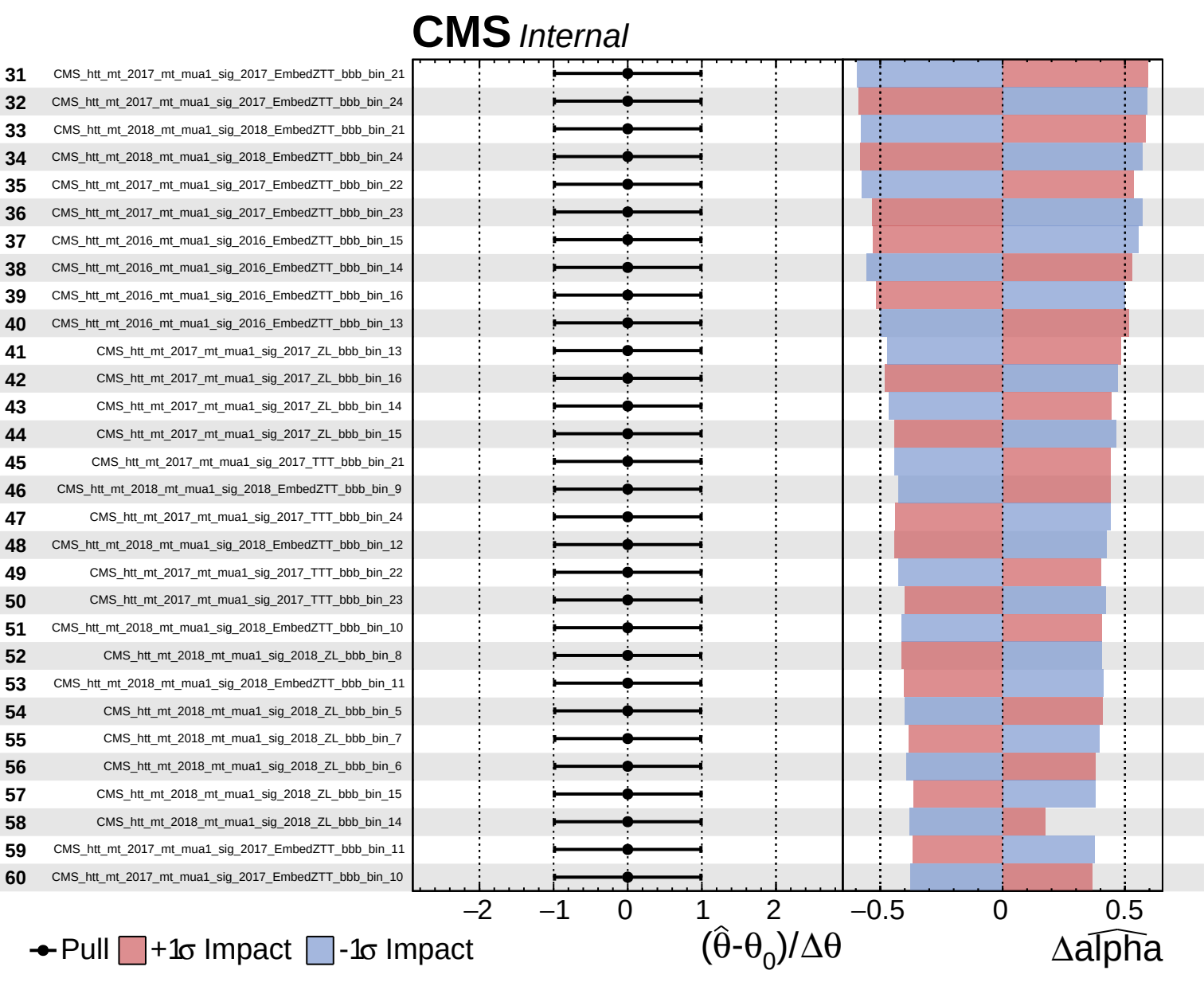

CMS Internal
1 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_18
2 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_19
3 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_17
4 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_20
5 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_18
6 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_19
7 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_17
8 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_20
9 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_18
10 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_19
11 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_17
12 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_20
13 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_18
14 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_19
15 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_17
16 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_20
17 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_15
18 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_14
19 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_13
20 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_16
21 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_22
22 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_23
23 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_16
24 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_18
25 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_13
26 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_19
27 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_15
28 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_14
29 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_17
30 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_20
−2
−1
0
1
2
−1
0
1
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


CMS Internal
31 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_21
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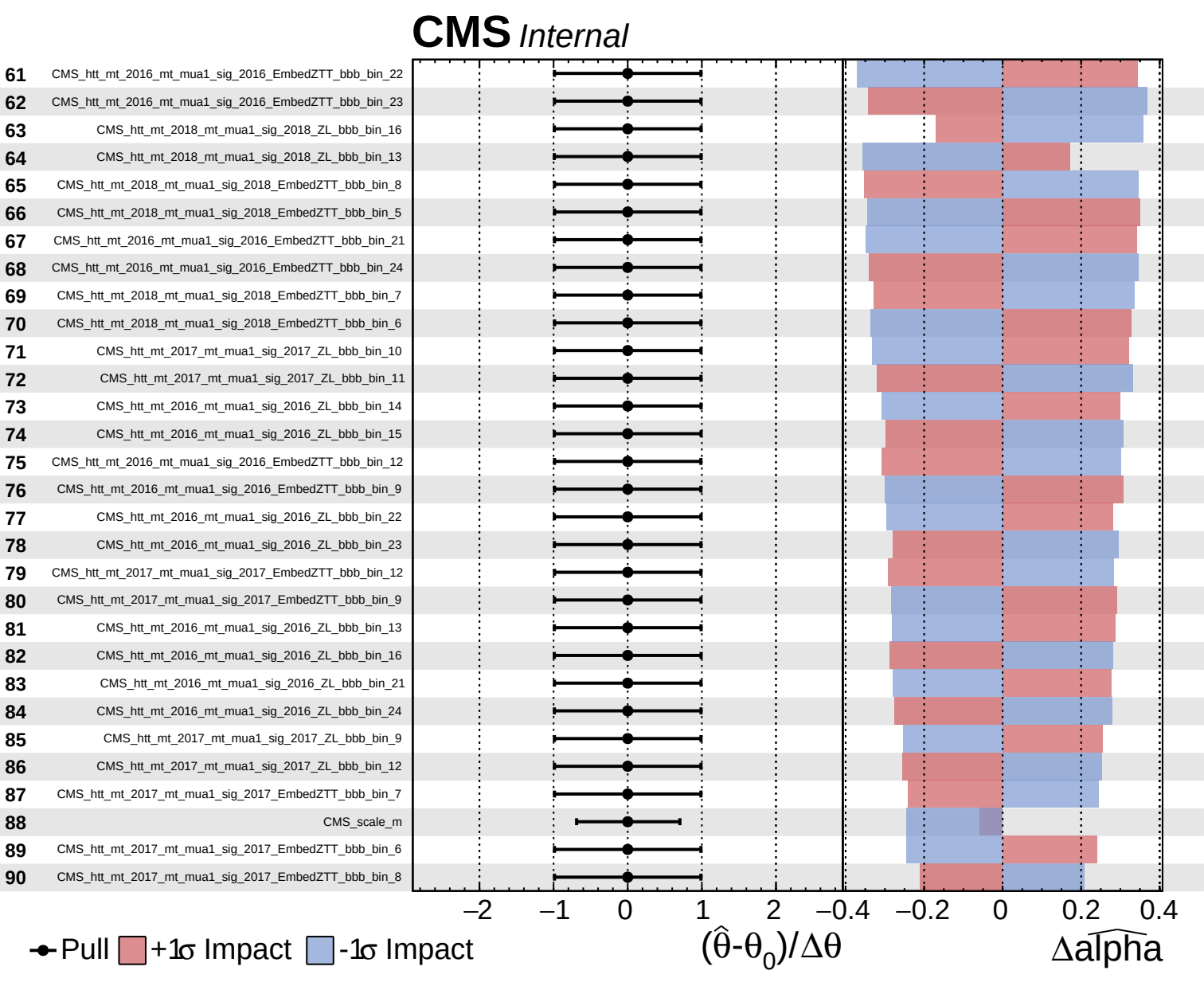
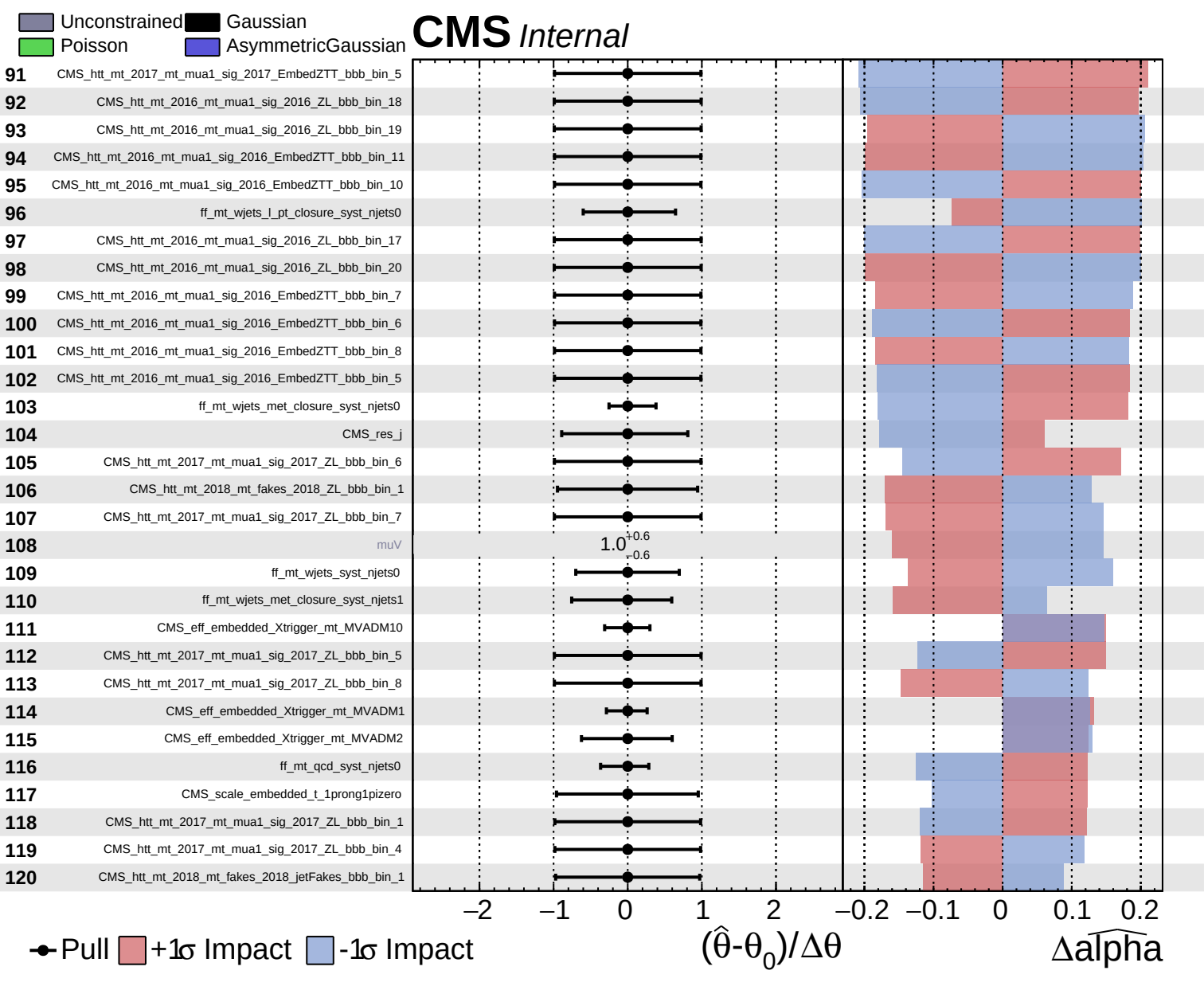
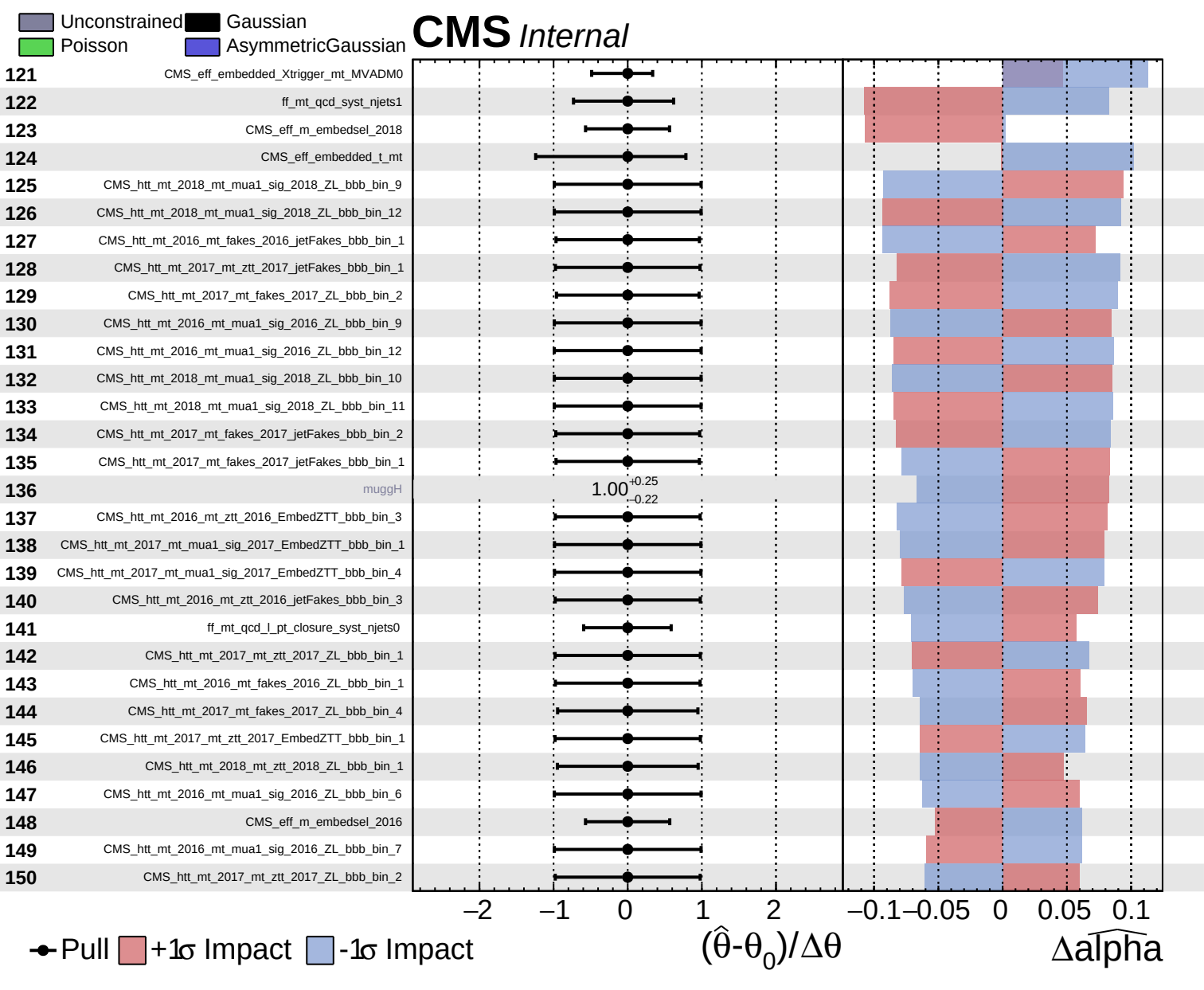
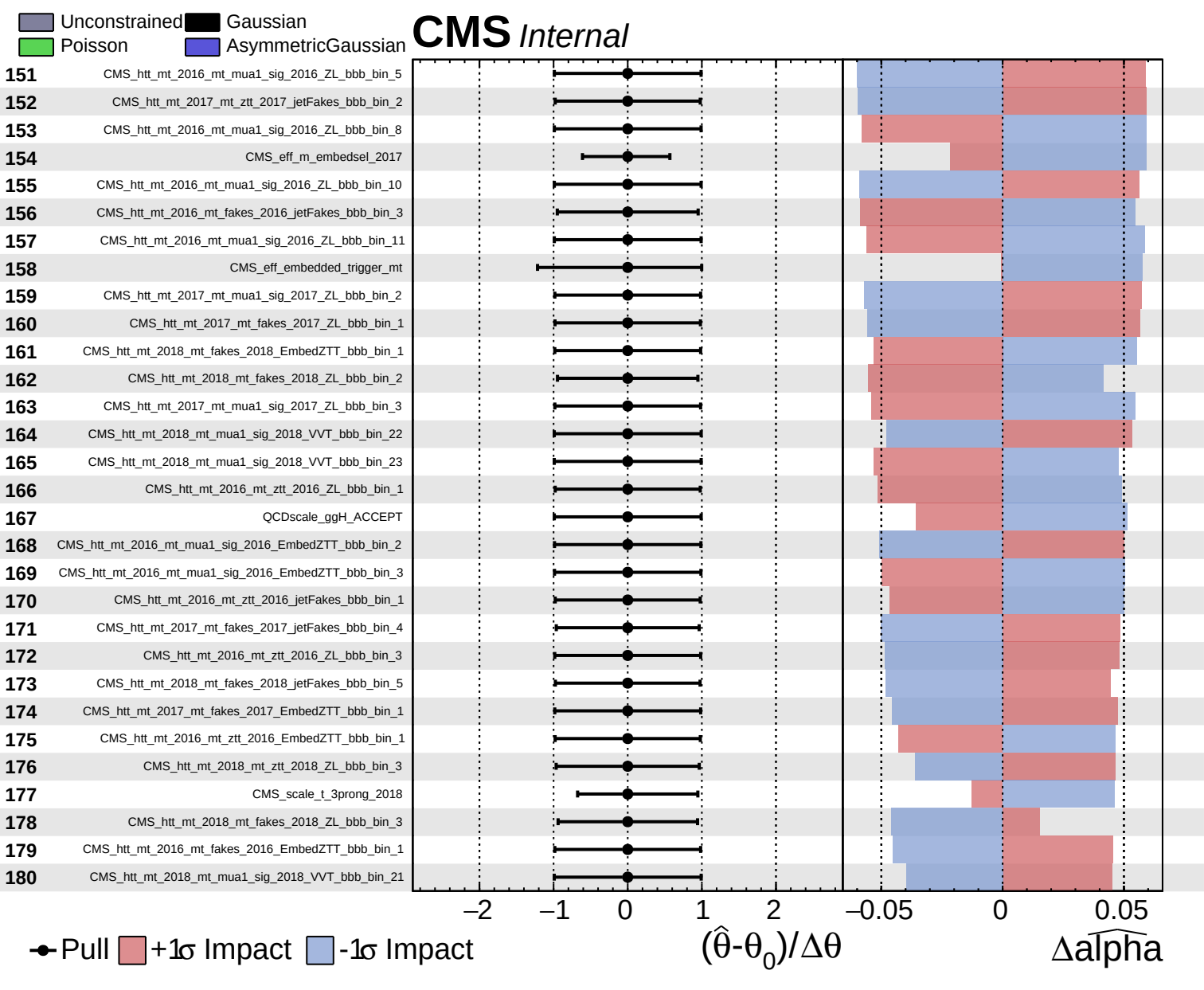
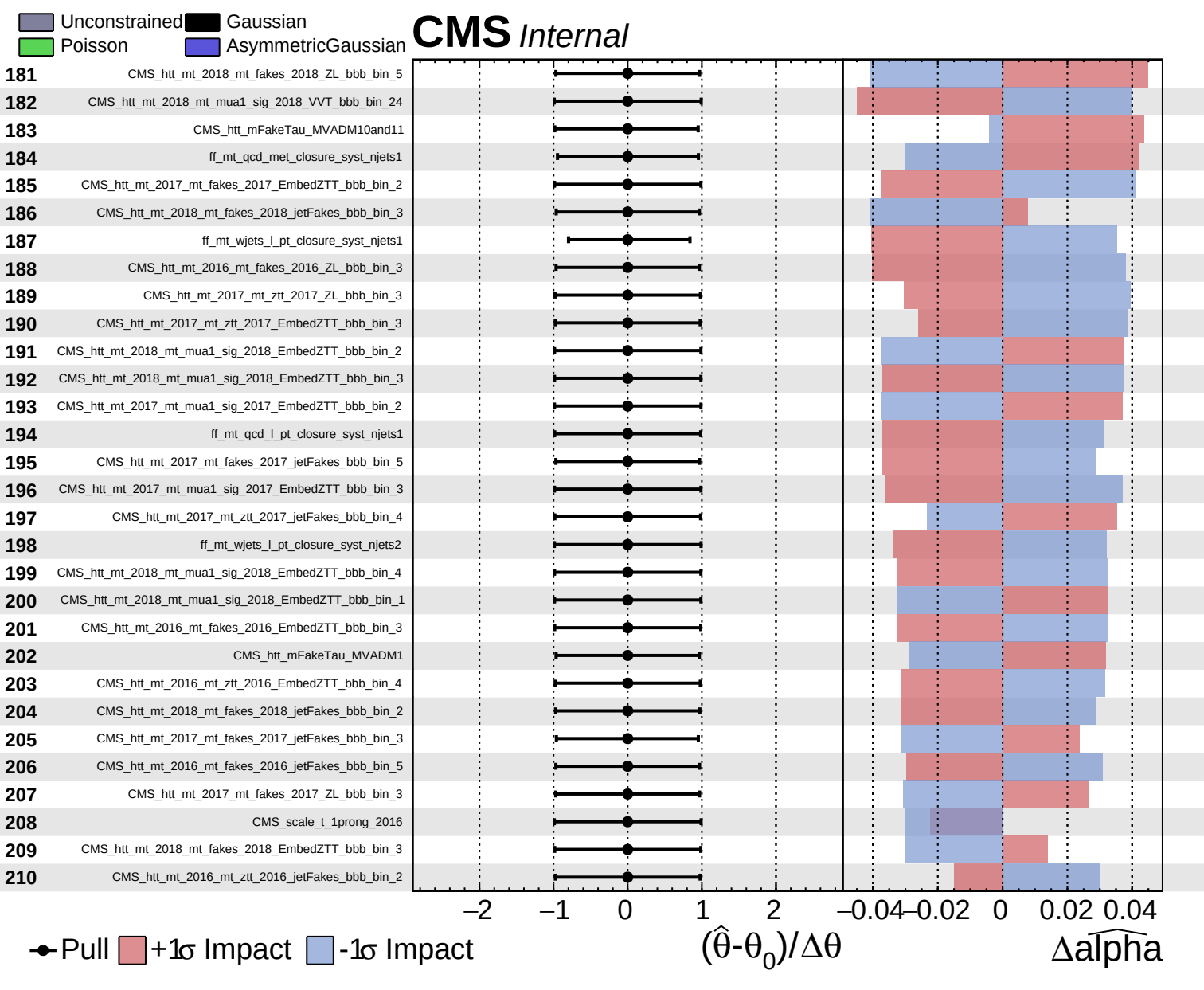
33 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_21
34 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_24
35 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_22
36 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_23
37 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_15
38 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_14
39 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_16
40 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_13
41 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_13
42 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_16
43 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_14
44 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_15
45 CMS_htt_mt_2017_mt_mua1_sig_2017_TTT_bbb_bin_21
46 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_9
47 CMS_htt_mt_2017_mt_mua1_sig_2017_TTT_bbb_bin_24
48 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_12
49 CMS_htt_mt_2017_mt_mua1_sig_2017_TTT_bbb_bin_22
50 CMS_htt_mt_2017_mt_mua1_sig_2017_TTT_bbb_bin_23
51 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_10
52 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_8
53 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_11
54 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_5
55 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_7
56 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_6
57 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_15
58 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_14
59 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_11
60 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_10
−2
−1
0
1
2
−0.5
0
0.5
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha

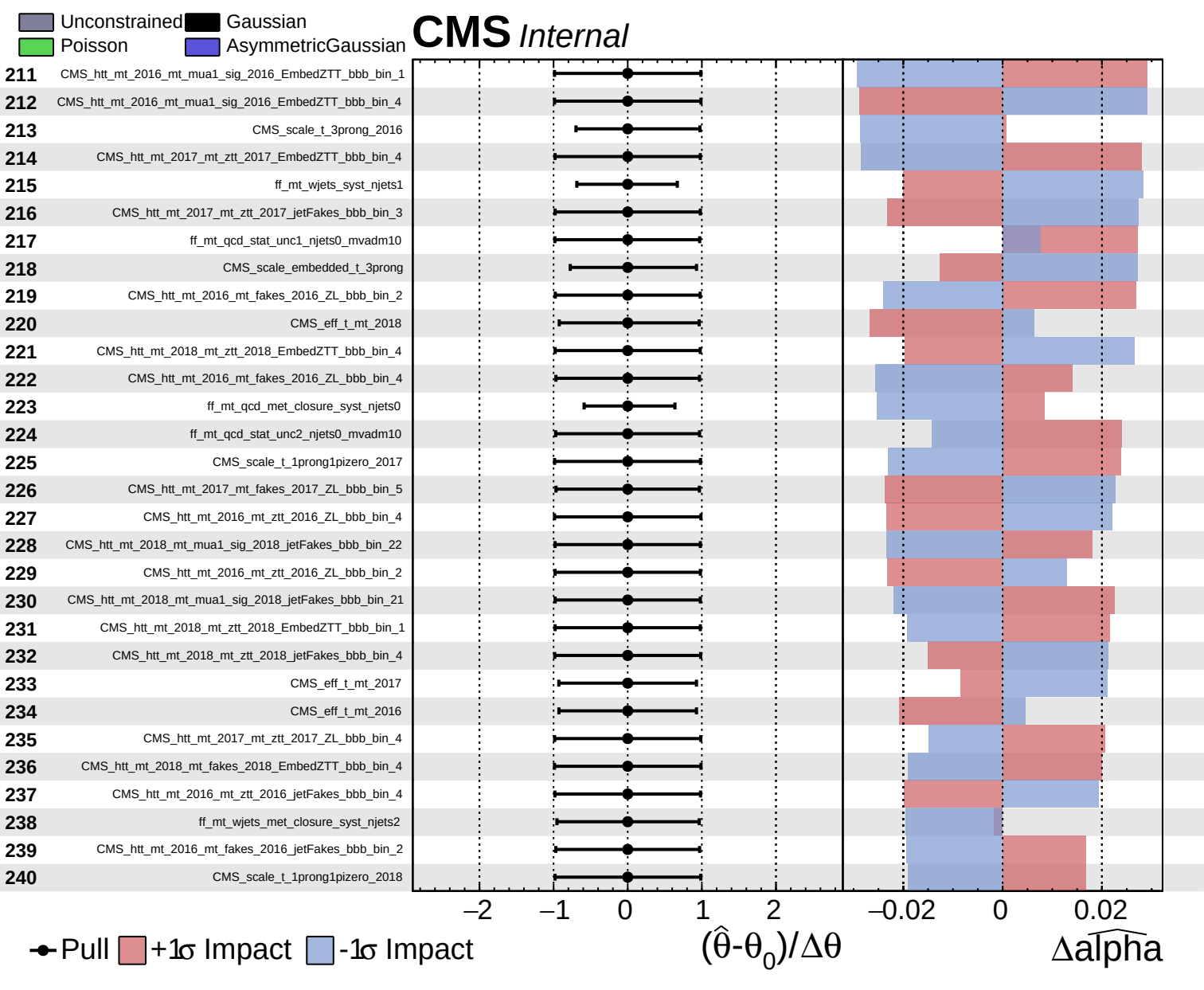

CMS Internal
61 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_22
62 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_23
63 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_16
64 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_13
65 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_8
66 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_5
67 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_21
68 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_24
69 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_7
70 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_6
71 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_10
72 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_11
73 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_14
74 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_15
75 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_12
76 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_9
77 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_22
78 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_23
79 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_12
80 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_9
81 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_13
82 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_16
83 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_21
84 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_24
85 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_9
86 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_12
87 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_7
88 CMS_scale_m
89 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_6
90 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_8
−2
−1
0
1
2
−0.4
−0.2
0
0.2
0.4
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha

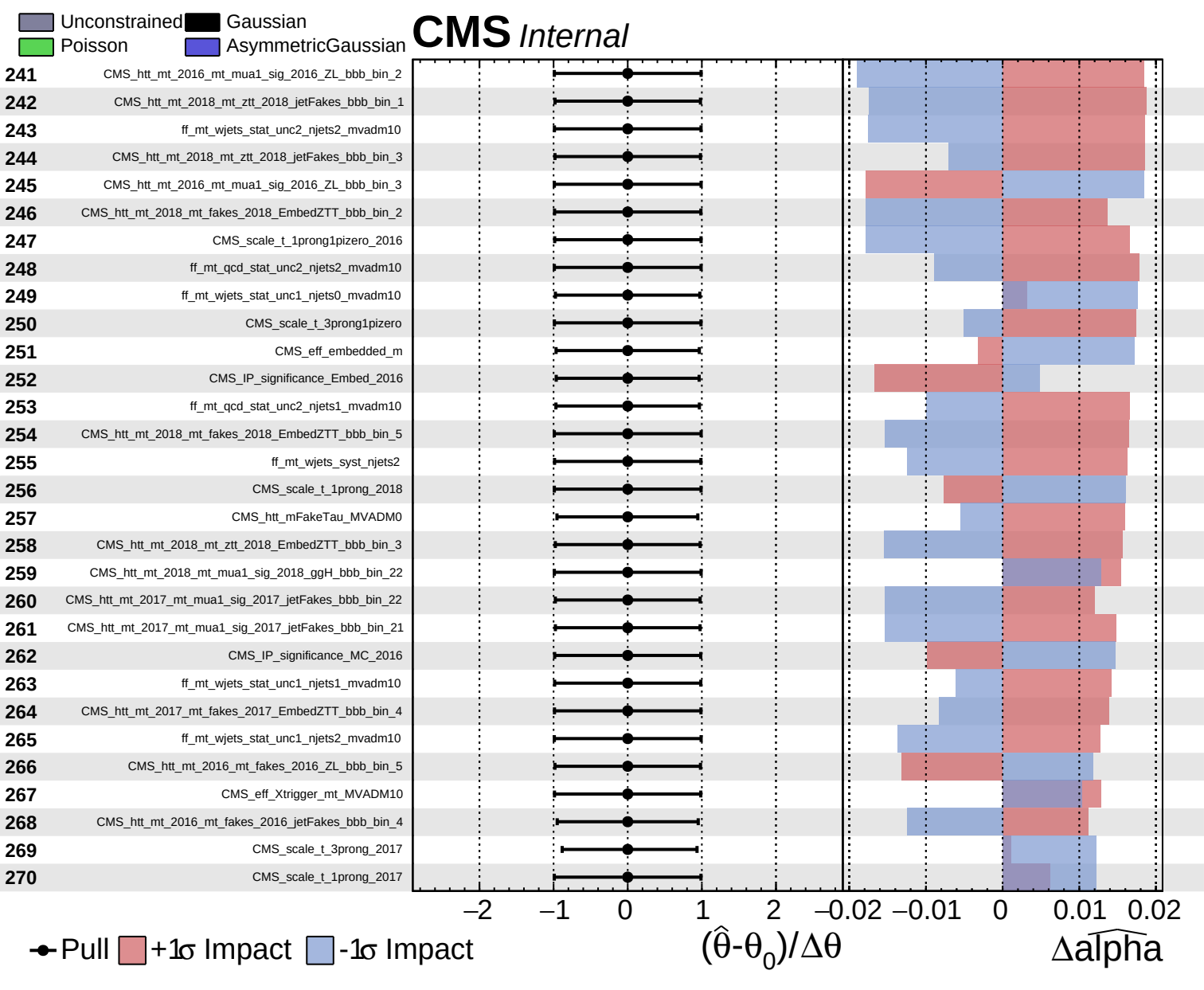

Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
91 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_5
92 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_18
93 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_19
94 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_11
95 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_10
96 ff_mt_wjets_l_pt_closure_syst_njets0
97 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_17
98 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_20
99 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_7
100 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_6
101 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_8
102 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_5
103 ff_mt_wjets_met_closure_syst_njets0
104 CMS_res_j
105 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_6
106 CMS_htt_mt_2018_mt_fakes_2018_ZL_bbb_bin_1
107 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_7
108 muV
109 ff_mt_wjets_syst_njets0
110 ff_mt_wjets_met_closure_syst_njets1
111 CMS_eff_embedded_Xtrigger_mt_MVADM10
112 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_5
113 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_8
114 CMS_eff_embedded_Xtrigger_mt_MVADM1
115 CMS_eff_embedded_Xtrigger_mt_MVADM2
116 ff_mt_qcd_syst_njets0
117 CMS_scale_embedded_t_1prong1pizero
118 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_1
119 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_4
120 CMS_htt_mt_2018_mt_fakes_2018_jetFakes_bbb_bin_1
1.0 +0.6 -0.6
−2 −1 0 1 2
−0.2 −0.1 0 0.1 0.2
Pull +1σ Impact -1σ Impact
(θ̂-θ0)/Δθ
Δalpha

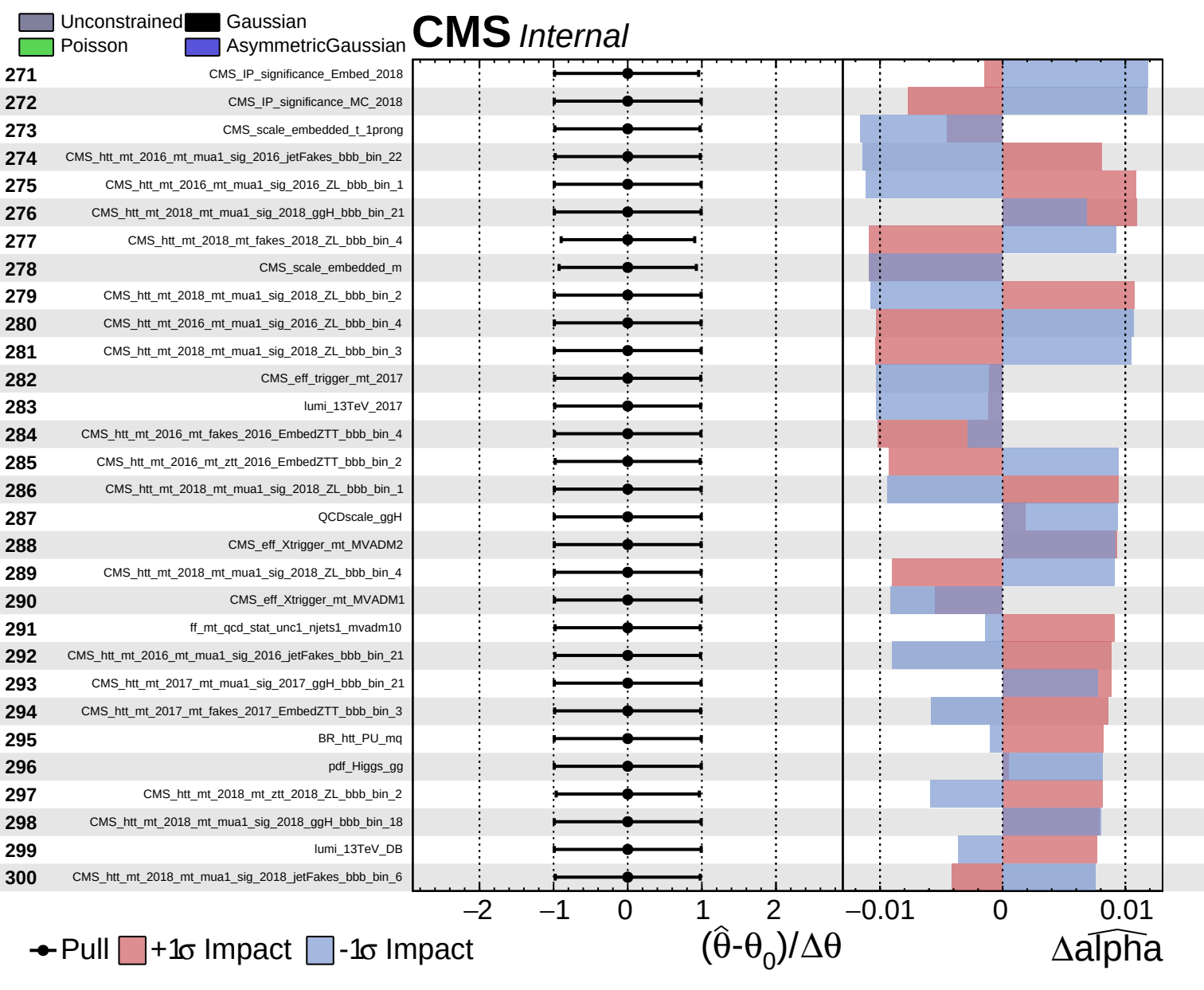

Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
121 CMS_eff_embedded_Xtrigger_mt_MVADM0
122 ff_mt_qcd_syst_njets1
123 CMS_eff_m_embedsel_2018
124 CMS_eff_embedded_t_mt
125 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_9
126 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_12
127 CMS_htt_mt_2016_mt_fakes_2016_jetFakes_bbb_bin_1
128 CMS_htt_mt_2017_mt_ztt_2017_jetFakes_bbb_bin_1
129 CMS_htt_mt_2017_mt_fakes_2017_ZL_bbb_bin_2
130 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_9
131 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_12
132 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_10
133 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_11
134 CMS_htt_mt_2017_mt_fakes_2017_jetFakes_bbb_bin_2
135 CMS_htt_mt_2017_mt_fakes_2017_jetFakes_bbb_bin_1
136 muggH
1.00 +0.25 −0.22
137 CMS_htt_mt_2016_mt_ztt_2016_EmbedZTT_bbb_bin_3
138 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_1
139 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_4
140 CMS_htt_mt_2016_mt_ztt_2016_jetFakes_bbb_bin_3
141 ff_mt_qcd_l_pt_closure_syst_njets0
142 CMS_htt_mt_2017_mt_ztt_2017_ZL_bbb_bin_1
143 CMS_htt_mt_2016_mt_fakes_2016_ZL_bbb_bin_1
144 CMS_htt_mt_2017_mt_fakes_2017_ZL_bbb_bin_4
145 CMS_htt_mt_2017_mt_ztt_2017_EmbedZTT_bbb_bin_1
146 CMS_htt_mt_2018_mt_ztt_2018_ZL_bbb_bin_1
147 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_6
148 CMS_eff_m_embedsel_2016
149 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_7
150 CMS_htt_mt_2017_mt_ztt_2017_ZL_bbb_bin_2
−2 −1 0 1 2
−0.1 −0.05 0 0.05 0.1
Pull +1σ Impact -1σ Impact
(θ̂-θ0)/Δθ
Δalpha

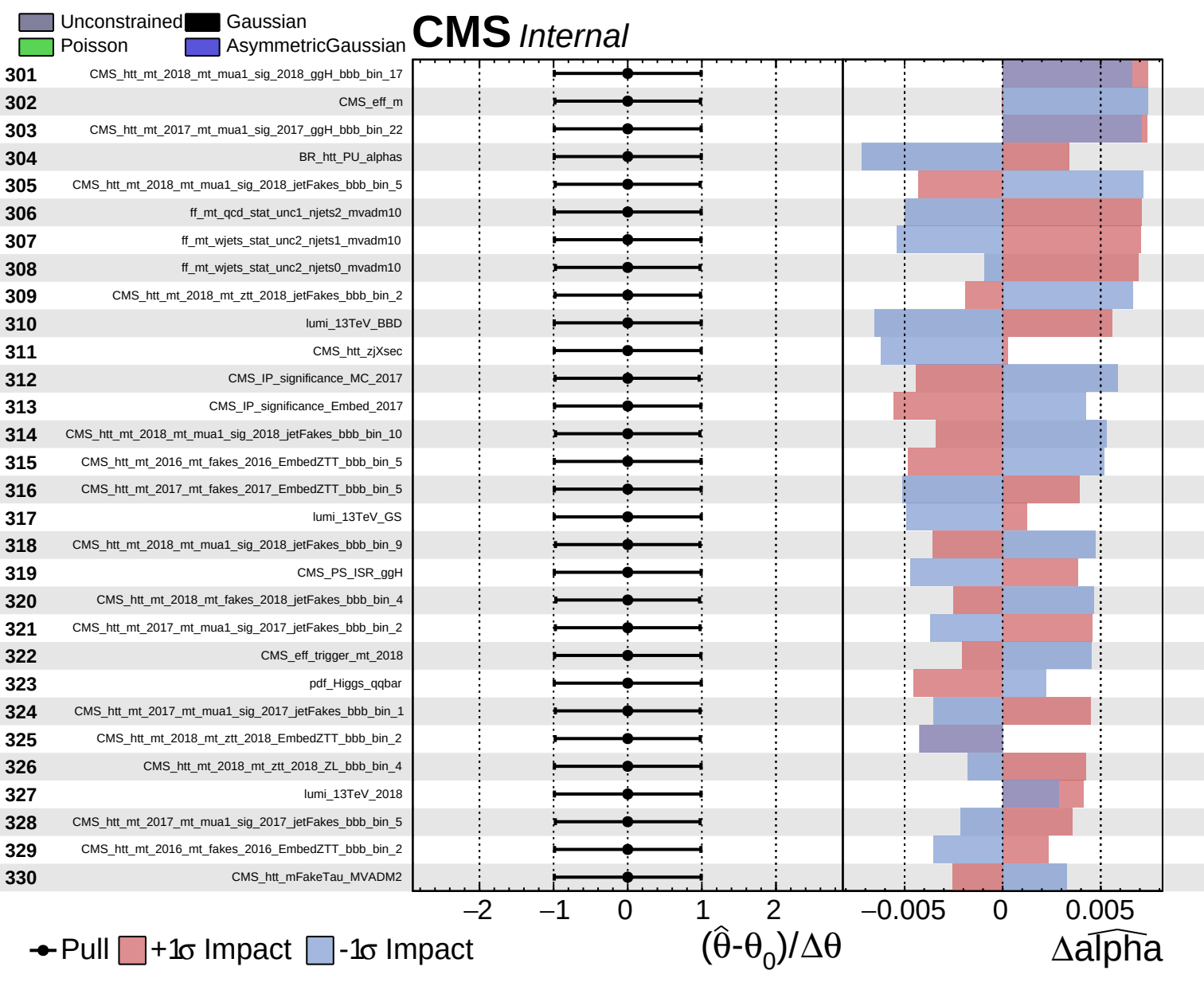

Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
151 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_5
152 CMS_htt_mt_2017_mt_ztt_2017_jetFakes_bbb_bin_2
153 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_8
154 CMS_eff_m_embedsel_2017
155 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_10
156 CMS_htt_mt_2016_mt_fakes_2016_jetFakes_bbb_bin_3
157 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_11
158 CMS_eff_embedded_trigger_mt
159 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_2
160 CMS_htt_mt_2017_mt_fakes_2017_ZL_bbb_bin_1
161 CMS_htt_mt_2018_mt_fakes_2018_EmbedZTT_bbb_bin_1
162 CMS_htt_mt_2018_mt_fakes_2018_ZL_bbb_bin_2
163 CMS_htt_mt_2017_mt_mua1_sig_2017_ZL_bbb_bin_3
164 CMS_htt_mt_2018_mt_mua1_sig_2018_VVT_bbb_bin_22
165 CMS_htt_mt_2018_mt_mua1_sig_2018_VVT_bbb_bin_23
166 CMS_htt_mt_2016_mt_ztt_2016_ZL_bbb_bin_1
167 QCDscale_ggH_ACCEPT
168 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_2
169 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_3
170 CMS_htt_mt_2016_mt_ztt_2016_jetFakes_bbb_bin_1
171 CMS_htt_mt_2017_mt_fakes_2017_jetFakes_bbb_bin_4
172 CMS_htt_mt_2016_mt_ztt_2016_ZL_bbb_bin_3
173 CMS_htt_mt_2018_mt_fakes_2018_jetFakes_bbb_bin_5
174 CMS_htt_mt_2017_mt_fakes_2017_EmbedZTT_bbb_bin_1
175 CMS_htt_mt_2016_mt_ztt_2016_EmbedZTT_bbb_bin_1
176 CMS_htt_mt_2018_mt_ztt_2018_ZL_bbb_bin_3
177 CMS_scale_t_3prong_2018
178 CMS_htt_mt_2018_mt_fakes_2018_ZL_bbb_bin_3
179 CMS_htt_mt_2016_mt_fakes_2016_EmbedZTT_bbb_bin_1
180 CMS_htt_mt_2018_mt_mua1_sig_2018_VVT_bbb_bin_21
–2
–1
0
1
2
–0.05
0
0.05
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
181 CMS_htt_mt_2018_mt_fakes_2018_ZL_bbb_bin_5
182 CMS_htt_mt_2018_mt_mua1_sig_2018_VVT_bbb_bin_24
183 CMS_htt_mFakeTau_MVADM10and11
184 ff_mt_qcd_met_closure_syst_njets1
185 CMS_htt_mt_2017_mt_fakes_2017_EmbedZTT_bbb_bin_2
186 CMS_htt_mt_2018_mt_fakes_2018_jetFakes_bbb_bin_3
187 ff_mt_wjets_l_pt_closure_syst_njets1
188 CMS_htt_mt_2016_mt_fakes_2016_ZL_bbb_bin_3
189 CMS_htt_mt_2017_mt_ztt_2017_ZL_bbb_bin_3
190 CMS_htt_mt_2017_mt_ztt_2017_EmbedZTT_bbb_bin_3
191 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_2
192 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_3
193 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_2
194 ff_mt_qcd_l_pt_closure_syst_njets1
195 CMS_htt_mt_2017_mt_fakes_2017_jetFakes_bbb_bin_5
196 CMS_htt_mt_2017_mt_mua1_sig_2017_EmbedZTT_bbb_bin_3
197 CMS_htt_mt_2017_mt_ztt_2017_jetFakes_bbb_bin_4
198 ff_mt_wjets_l_pt_closure_syst_njets2
199 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_4
200 CMS_htt_mt_2018_mt_mua1_sig_2018_EmbedZTT_bbb_bin_1
201 CMS_htt_mt_2016_mt_fakes_2016_EmbedZTT_bbb_bin_3
202 CMS_htt_mFakeTau_MVADM1
203 CMS_htt_mt_2016_mt_ztt_2016_EmbedZTT_bbb_bin_4
204 CMS_htt_mt_2018_mt_fakes_2018_jetFakes_bbb_bin_2
205 CMS_htt_mt_2017_mt_fakes_2017_jetFakes_bbb_bin_3
206 CMS_htt_mt_2016_mt_fakes_2016_jetFakes_bbb_bin_5
207 CMS_htt_mt_2017_mt_fakes_2017_ZL_bbb_bin_3
208 CMS_scale_t_1prong_2016
209 CMS_htt_mt_2018_mt_fakes_2018_EmbedZTT_bbb_bin_3
210 CMS_htt_mt_2016_mt_ztt_2016_jetFakes_bbb_bin_2
–2
–1
0
1
2
–0.04
–0.02
0
0.02
0.04
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
211 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_1
212 CMS_htt_mt_2016_mt_mua1_sig_2016_EmbedZTT_bbb_bin_4
213 CMS_scale_t_3prong_2016
214 CMS_htt_mt_2017_mt_ztt_2017_EmbedZTT_bbb_bin_4
215 ff_mt_wjets_syst_njets1
216 CMS_htt_mt_2017_mt_ztt_2017_jetFakes_bbb_bin_3
217 ff_mt_qcd_stat_unc1_njets0_mvadm10
218 CMS_scale_embedded_t_3prong
219 CMS_htt_mt_2016_mt_fakes_2016_ZL_bbb_bin_2
220 CMS_eff_t_mt_2018
221 CMS_htt_mt_2018_mt_ztt_2018_EmbedZTT_bbb_bin_4
222 CMS_htt_mt_2016_mt_fakes_2016_ZL_bbb_bin_4
223 ff_mt_qcd_met_closure_syst_njets0
224 ff_mt_qcd_stat_unc2_njets0_mvadm10
225 CMS_scale_t_1prong1pizero_2017
226 CMS_htt_mt_2017_mt_fakes_2017_ZL_bbb_bin_5
227 CMS_htt_mt_2016_mt_ztt_2016_ZL_bbb_bin_4
228 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_22
229 CMS_htt_mt_2016_mt_ztt_2016_ZL_bbb_bin_2
230 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_21
231 CMS_htt_mt_2018_mt_ztt_2018_EmbedZTT_bbb_bin_1
232 CMS_htt_mt_2018_mt_ztt_2018_jetFakes_bbb_bin_4
233 CMS_eff_t_mt_2017
234 CMS_eff_t_mt_2016
235 CMS_htt_mt_2017_mt_ztt_2017_ZL_bbb_bin_4
236 CMS_htt_mt_2018_mt_fakes_2018_EmbedZTT_bbb_bin_4
237 CMS_htt_mt_2016_mt_ztt_2016_jetFakes_bbb_bin_4
238 ff_mt_wjets_met_closure_syst_njets2
239 CMS_htt_mt_2016_mt_fakes_2016_jetFakes_bbb_bin_2
240 CMS_scale_t_1prong1pizero_2018
–2
–1
0
1
2
–0.02
0
0.02
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{\text{alpha}}$


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
241 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_2
242 CMS_htt_mt_2018_mt_ztt_2018_jetFakes_bbb_bin_1
243 ff_mt_wjets_stat_unc2_njets2_mvadm10
244 CMS_htt_mt_2018_mt_ztt_2018_jetFakes_bbb_bin_3
245 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_3
246 CMS_htt_mt_2018_mt_fakes_2018_EmbedZTT_bbb_bin_2
247 CMS_scale_t_1prong1pizero_2016
248 ff_mt_qcd_stat_unc2_njets2_mvadm10
249 ff_mt_wjets_stat_unc1_njets0_mvadm10
250 CMS_scale_t_3prong1pizero
251 CMS_eff_embedded_m
252 CMS_IP_significance_Embed_2016
253 ff_mt_qcd_stat_unc2_njets1_mvadm10
254 CMS_htt_mt_2018_mt_fakes_2018_EmbedZTT_bbb_bin_5
255 ff_mt_wjets_syst_njets2
256 CMS_scale_t_1prong_2018
257 CMS_htt_mFakeTau_MVADM0
258 CMS_htt_mt_2018_mt_ztt_2018_EmbedZTT_bbb_bin_3
259 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_22
260 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_22
261 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_21
262 CMS_IP_significance_MC_2016
263 ff_mt_wjets_stat_unc1_njets1_mvadm10
264 CMS_htt_mt_2017_mt_fakes_2017_EmbedZTT_bbb_bin_4
265 ff_mt_wjets_stat_unc1_njets2_mvadm10
266 CMS_htt_mt_2016_mt_fakes_2016_ZL_bbb_bin_5
267 CMS_eff_Xtrigger_mt_MVADM10
268 CMS_htt_mt_2016_mt_fakes_2016_jetFakes_bbb_bin_4
269 CMS_scale_t_3prong_2017
270 CMS_scale_t_1prong_2017
–2 –1 0 1 2
–0.02 –0.01 0 0.01 0.02
Pull +1σ Impact -1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
271 CMS_IP_significance_Embed_2018
272 CMS_IP_significance_MC_2018
273 CMS_scale_embedded_t_1prong
274 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_22
275 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_1
276 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_21
277 CMS_htt_mt_2018_mt_fakes_2018_ZL_bbb_bin_4
278 CMS_scale_embedded_m
279 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_2
280 CMS_htt_mt_2016_mt_mua1_sig_2016_ZL_bbb_bin_4
281 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_3
282 CMS_eff_trigger_mt_2017
283 lumi_13TeV_2017
284 CMS_htt_mt_2016_mt_fakes_2016_EmbedZTT_bbb_bin_4
285 CMS_htt_mt_2016_mt_ztt_2016_EmbedZTT_bbb_bin_2
286 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_1
287 QCDscale_ggH
288 CMS_eff_Xtrigger_mt_MVADM2
289 CMS_htt_mt_2018_mt_mua1_sig_2018_ZL_bbb_bin_4
290 CMS_eff_Xtrigger_mt_MVADM1
291 ff_mt_qcd_stat_unc1_njets1_mvadm10
292 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_21
293 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_21
294 CMS_htt_mt_2017_mt_fakes_2017_EmbedZTT_bbb_bin_3
295 BR_htt_PU_mq
296 pdf_Higgs_gg
297 CMS_htt_mt_2018_mt_ztt_2018_ZL_bbb_bin_2
298 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_18
299 lumi_13TeV_DB
300 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_6
−2
−1
0
1
2
−0.01
0
0.01
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
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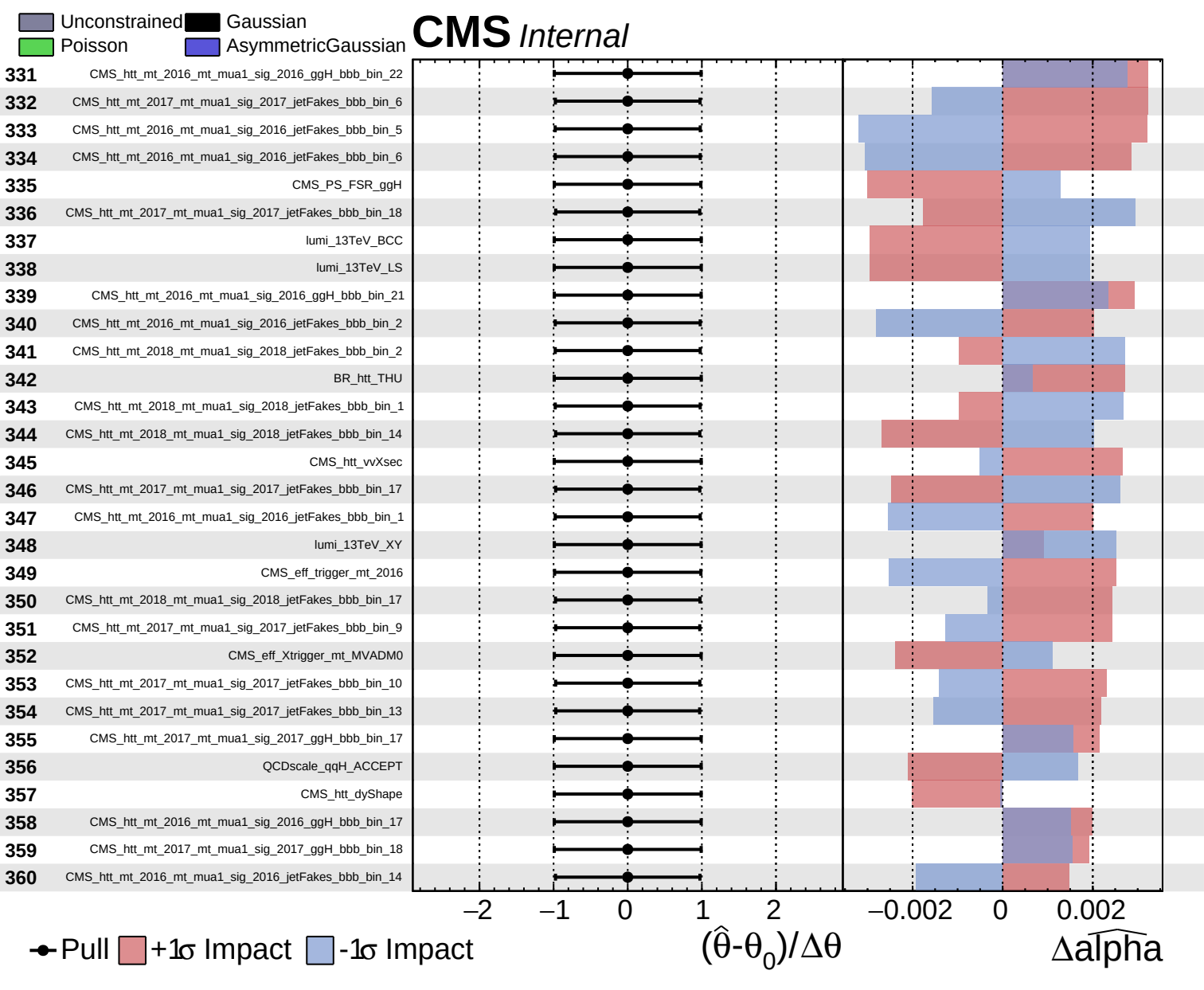
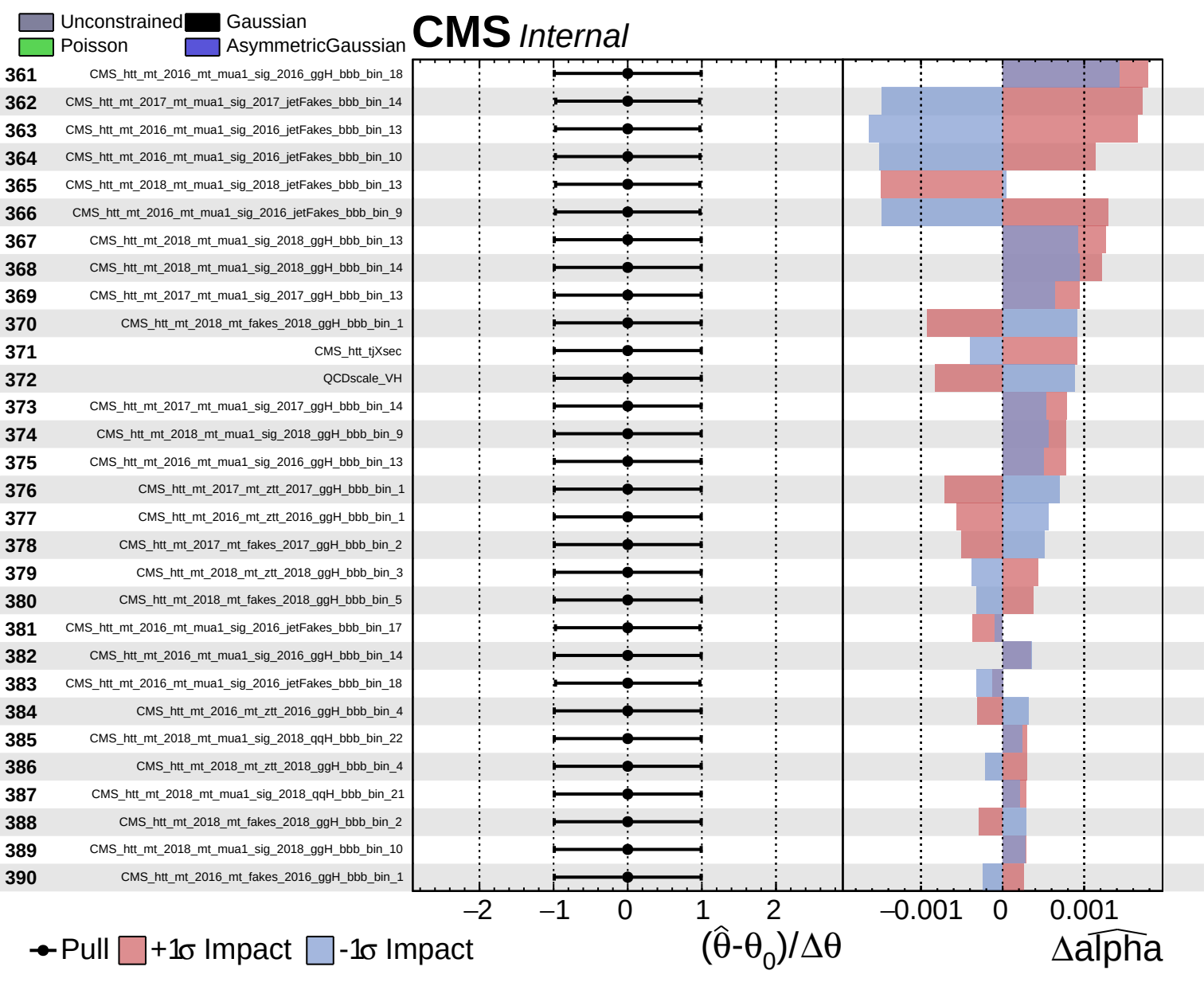
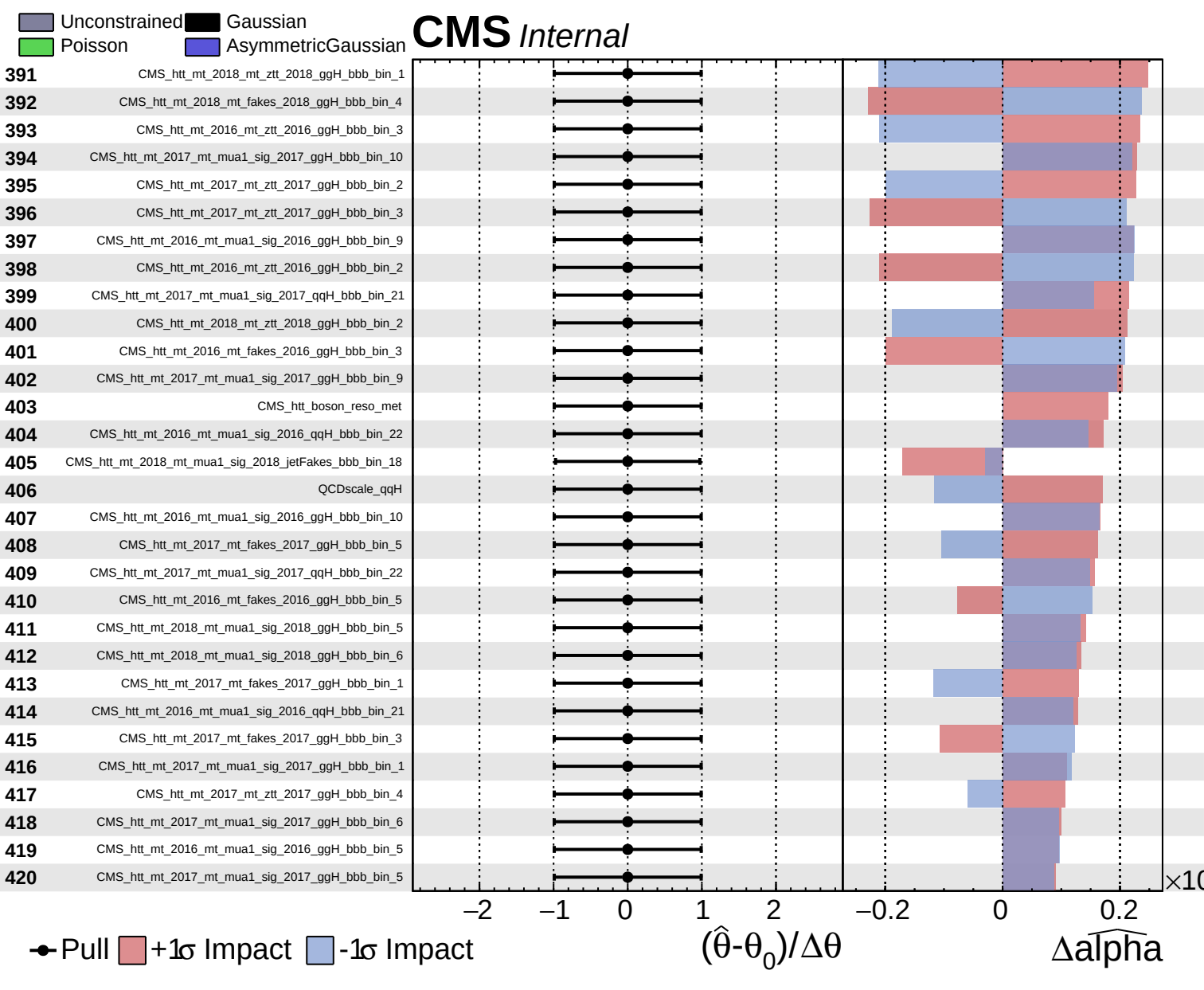
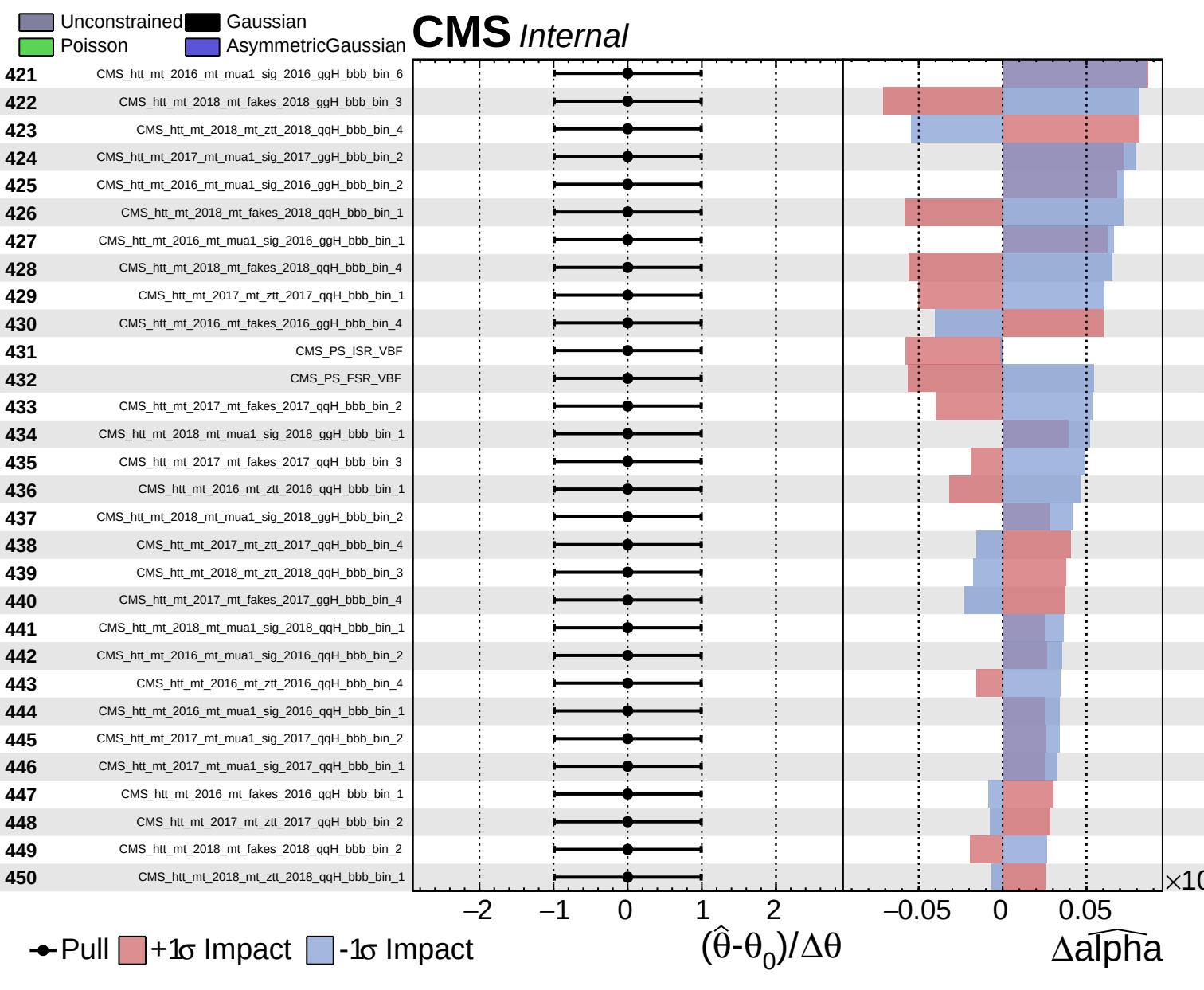
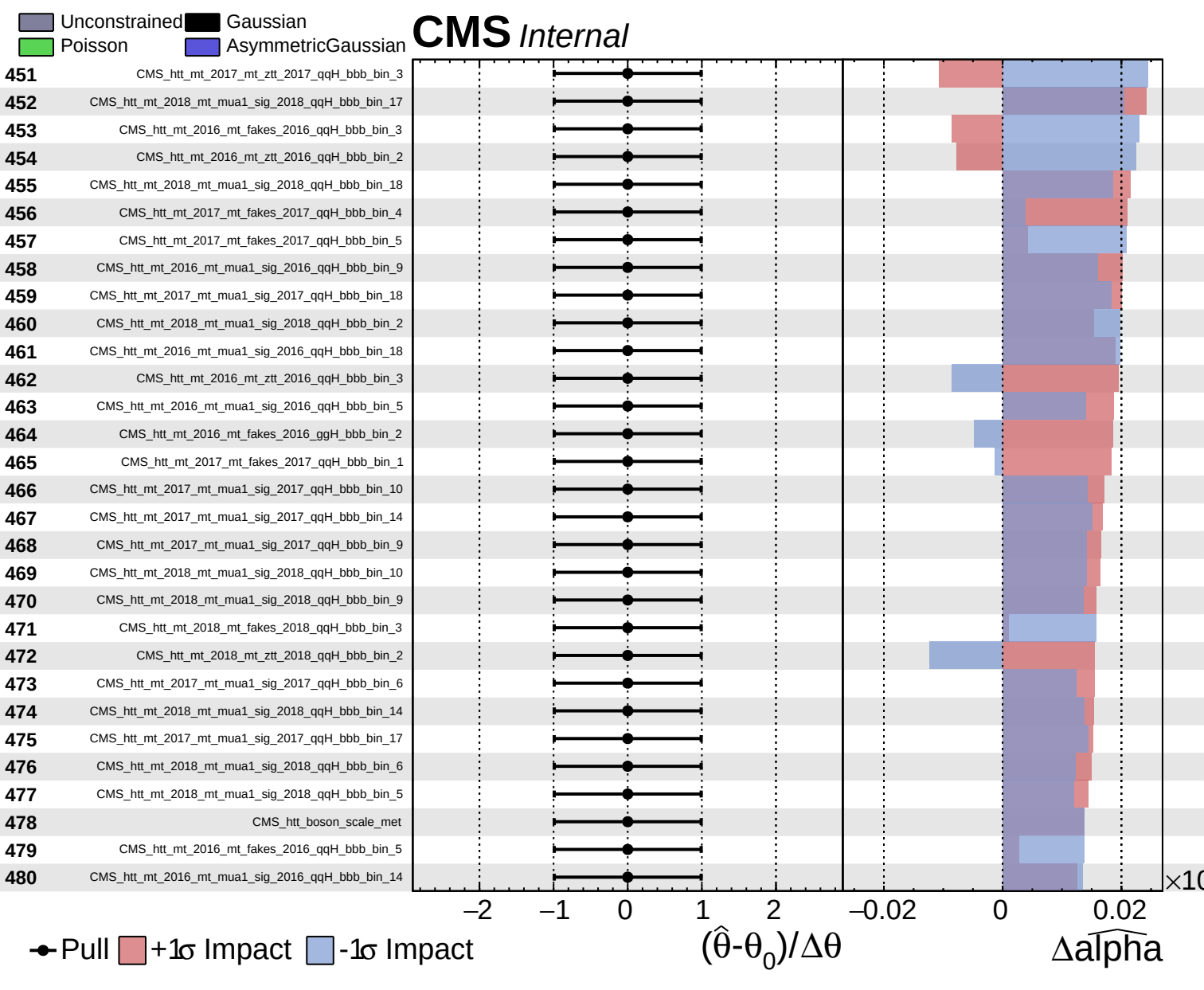
302 CMS_eff_m
303 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_22
304 BR_htt_PU_alphas
305 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_5
306 ff_mt_qcd_stat_unc1_njets2_mvadm10
307 ff_mt_wjets_stat_unc2_njets1_mvadm10
308 ff_mt_wjets_stat_unc2_njets0_mvadm10
309 CMS_htt_mt_2018_mt_ztt_2018_jetFakes_bbb_bin_2
310 lumi_13TeV_BBD
311 CMS_htt_zjXsec
312 CMS_IP_significance_MC_2017
313 CMS_IP_significance_Embed_2017
314 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_10
315 CMS_htt_mt_2016_mt_fakes_2016_EmbedZTT_bbb_bin_5
316 CMS_htt_mt_2017_mt_fakes_2017_EmbedZTT_bbb_bin_5
317 lumi_13TeV_GS
318 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_9
319 CMS_PS_ISR_ggH
320 CMS_htt_mt_2018_mt_fakes_2018_jetFakes_bbb_bin_4
321 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_2
322 CMS_eff_trigger_mt_2018
323 pdf_Higgs_qqbar
324 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_1
325 CMS_htt_mt_2018_mt_ztt_2018_EmbedZTT_bbb_bin_2
326 CMS_htt_mt_2018_mt_ztt_2018_ZL_bbb_bin_4
327 lumi_13TeV_2018
328 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_5
329 CMS_htt_mt_2016_mt_fakes_2016_EmbedZTT_bbb_bin_2
330 CMS_htt_mFakeTau_MVADM2
−2
−1
0
1
2
−0.005
0
0.005
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha

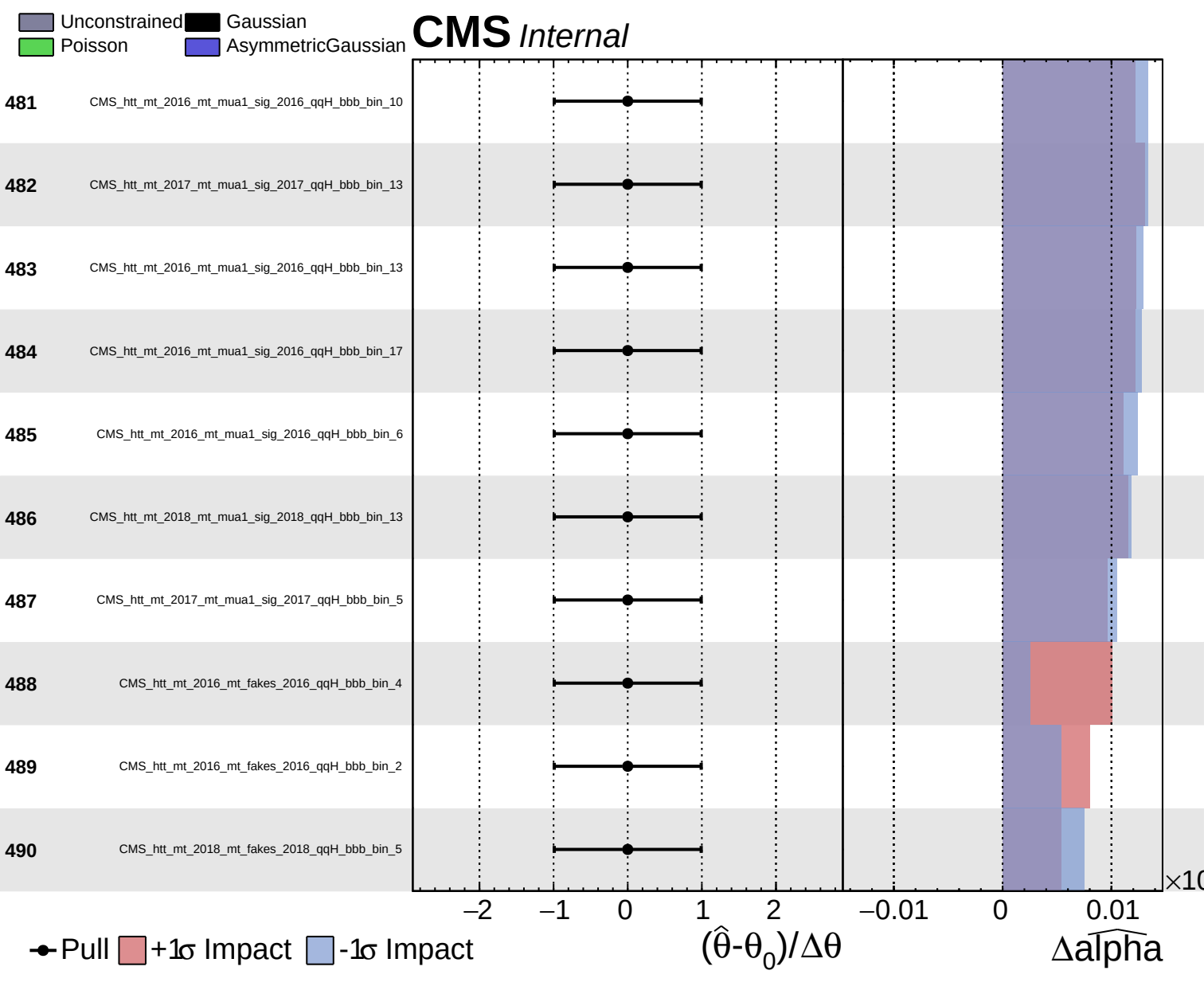

Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
331 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_22
332 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_6
333 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_5
334 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_6
335 CMS_PS_FSR_ggH
336 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_18
337 lumi_13TeV_BCC
338 lumi_13TeV_LS
339 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_21
340 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_2
341 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_2
342 BR_htt_THU
343 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_1
344 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_14
345 CMS_htt_vvXsec
346 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_17
347 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_1
348 lumi_13TeV_XY
349 CMS_eff_trigger_mt_2016
350 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_17
351 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_9
352 CMS_eff_Xtrigger_mt_MVADM0
353 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_10
354 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_13
355 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_17
356 QCDscale_qqH_ACCEPT
357 CMS_htt_dyShape
358 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_17
359 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_18
360 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_14
−2
−1
0
1
2
−0.002
0
0.002
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
361 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_18
362 CMS_htt_mt_2017_mt_mua1_sig_2017_jetFakes_bbb_bin_14
363 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_13
364 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_10
365 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_13
366 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_9
367 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_13
368 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_14
369 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_13
370 CMS_htt_mt_2018_mt_fakes_2018_ggH_bbb_bin_1
371 CMS_htt_tjXsec
372 QCDscale_VH
373 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_14
374 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_9
375 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_13
376 CMS_htt_mt_2017_mt_ztt_2017_ggH_bbb_bin_1
377 CMS_htt_mt_2016_mt_ztt_2016_ggH_bbb_bin_1
378 CMS_htt_mt_2017_mt_fakes_2017_ggH_bbb_bin_2
379 CMS_htt_mt_2018_mt_ztt_2018_ggH_bbb_bin_3
380 CMS_htt_mt_2018_mt_fakes_2018_ggH_bbb_bin_5
381 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_17
382 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_14
383 CMS_htt_mt_2016_mt_mua1_sig_2016_jetFakes_bbb_bin_18
384 CMS_htt_mt_2016_mt_ztt_2016_ggH_bbb_bin_4
385 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_22
386 CMS_htt_mt_2018_mt_ztt_2018_ggH_bbb_bin_4
387 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_21
388 CMS_htt_mt_2018_mt_fakes_2018_ggH_bbb_bin_2
389 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_10
390 CMS_htt_mt_2016_mt_fakes_2016_ggH_bbb_bin_1
−2
−1
0
1
2
−0.001
0
0.001
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
391 CMS_htt_mt_2018_mt_ztt_2018_ggH_bbb_bin_1
392 CMS_htt_mt_2018_mt_fakes_2018_ggH_bbb_bin_4
393 CMS_htt_mt_2016_mt_ztt_2016_ggH_bbb_bin_3
394 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_10
395 CMS_htt_mt_2017_mt_ztt_2017_ggH_bbb_bin_2
396 CMS_htt_mt_2017_mt_ztt_2017_ggH_bbb_bin_3
397 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_9
398 CMS_htt_mt_2016_mt_ztt_2016_ggH_bbb_bin_2
399 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_21
400 CMS_htt_mt_2018_mt_ztt_2018_ggH_bbb_bin_2
401 CMS_htt_mt_2016_mt_fakes_2016_ggH_bbb_bin_3
402 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_9
403 CMS_htt_boson_reso_met
404 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_22
405 CMS_htt_mt_2018_mt_mua1_sig_2018_jetFakes_bbb_bin_18
406 QCDscale_qqH
407 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_10
408 CMS_htt_mt_2017_mt_fakes_2017_ggH_bbb_bin_5
409 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_22
410 CMS_htt_mt_2016_mt_fakes_2016_ggH_bbb_bin_5
411 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_5
412 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_6
413 CMS_htt_mt_2017_mt_fakes_2017_ggH_bbb_bin_1
414 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_21
415 CMS_htt_mt_2017_mt_fakes_2017_ggH_bbb_bin_3
416 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_1
417 CMS_htt_mt_2017_mt_ztt_2017_ggH_bbb_bin_4
418 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_6
419 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_5
420 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_5
−2
−1
0
1
2
−0.2
0
0.2
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
421 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_6
422 CMS_htt_mt_2018_mt_fakes_2018_ggH_bbb_bin_3
423 CMS_htt_mt_2018_mt_ztt_2018_qqH_bbb_bin_4
424 CMS_htt_mt_2017_mt_mua1_sig_2017_ggH_bbb_bin_2
425 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_2
426 CMS_htt_mt_2018_mt_fakes_2018_qqH_bbb_bin_1
427 CMS_htt_mt_2016_mt_mua1_sig_2016_ggH_bbb_bin_1
428 CMS_htt_mt_2018_mt_fakes_2018_qqH_bbb_bin_4
429 CMS_htt_mt_2017_mt_ztt_2017_qqH_bbb_bin_1
430 CMS_htt_mt_2016_mt_fakes_2016_ggH_bbb_bin_4
431 CMS_PS_ISR_VBF
432 CMS_PS_FSR_VBF
433 CMS_htt_mt_2017_mt_fakes_2017_qqH_bbb_bin_2
434 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_1
435 CMS_htt_mt_2017_mt_fakes_2017_qqH_bbb_bin_3
436 CMS_htt_mt_2016_mt_ztt_2016_qqH_bbb_bin_1
437 CMS_htt_mt_2018_mt_mua1_sig_2018_ggH_bbb_bin_2
438 CMS_htt_mt_2017_mt_ztt_2017_qqH_bbb_bin_4
439 CMS_htt_mt_2018_mt_ztt_2018_qqH_bbb_bin_3
440 CMS_htt_mt_2017_mt_fakes_2017_ggH_bbb_bin_4
441 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_1
442 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_2
443 CMS_htt_mt_2016_mt_ztt_2016_qqH_bbb_bin_4
444 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_1
445 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_2
446 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_1
447 CMS_htt_mt_2016_mt_fakes_2016_qqH_bbb_bin_1
448 CMS_htt_mt_2017_mt_ztt_2017_qqH_bbb_bin_2
449 CMS_htt_mt_2018_mt_fakes_2018_qqH_bbb_bin_2
450 CMS_htt_mt_2018_mt_ztt_2018_qqH_bbb_bin_1
−2
−1
0
1
2
−0.05
0
0.05
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
451 CMS_htt_mt_2017_mt_ztt_2017_qqH_bbb_bin_3
452 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_17
453 CMS_htt_mt_2016_mt_fakes_2016_qqH_bbb_bin_3
454 CMS_htt_mt_2016_mt_ztt_2016_qqH_bbb_bin_2
455 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_18
456 CMS_htt_mt_2017_mt_fakes_2017_qqH_bbb_bin_4
457 CMS_htt_mt_2017_mt_fakes_2017_qqH_bbb_bin_5
458 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_9
459 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_18
460 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_2
461 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_18
462 CMS_htt_mt_2016_mt_ztt_2016_qqH_bbb_bin_3
463 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_5
464 CMS_htt_mt_2016_mt_fakes_2016_ggH_bbb_bin_2
465 CMS_htt_mt_2017_mt_fakes_2017_qqH_bbb_bin_1
466 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_10
467 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_14
468 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_9
469 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_10
470 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_9
471 CMS_htt_mt_2018_mt_fakes_2018_qqH_bbb_bin_3
472 CMS_htt_mt_2018_mt_ztt_2018_qqH_bbb_bin_2
473 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_6
474 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_14
475 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_17
476 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_6
477 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_5
478 CMS_htt_boson_scale_met
479 CMS_htt_mt_2016_mt_fakes_2016_qqH_bbb_bin_5
480 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_14
−2
−1
0
1
2
−0.02
0
0.02
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
481 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_10
482 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_13
483 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_13
484 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_17
485 CMS_htt_mt_2016_mt_mua1_sig_2016_qqH_bbb_bin_6
486 CMS_htt_mt_2018_mt_mua1_sig_2018_qqH_bbb_bin_13
487 CMS_htt_mt_2017_mt_mua1_sig_2017_qqH_bbb_bin_5
488 CMS_htt_mt_2016_mt_fakes_2016_qqH_bbb_bin_4
489 CMS_htt_mt_2016_mt_fakes_2016_qqH_bbb_bin_2
490 CMS_htt_mt_2018_mt_fakes_2018_qqH_bbb_bin_5
−2
−1
0
1
2
−0.01
0
0.01
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
Δalpha