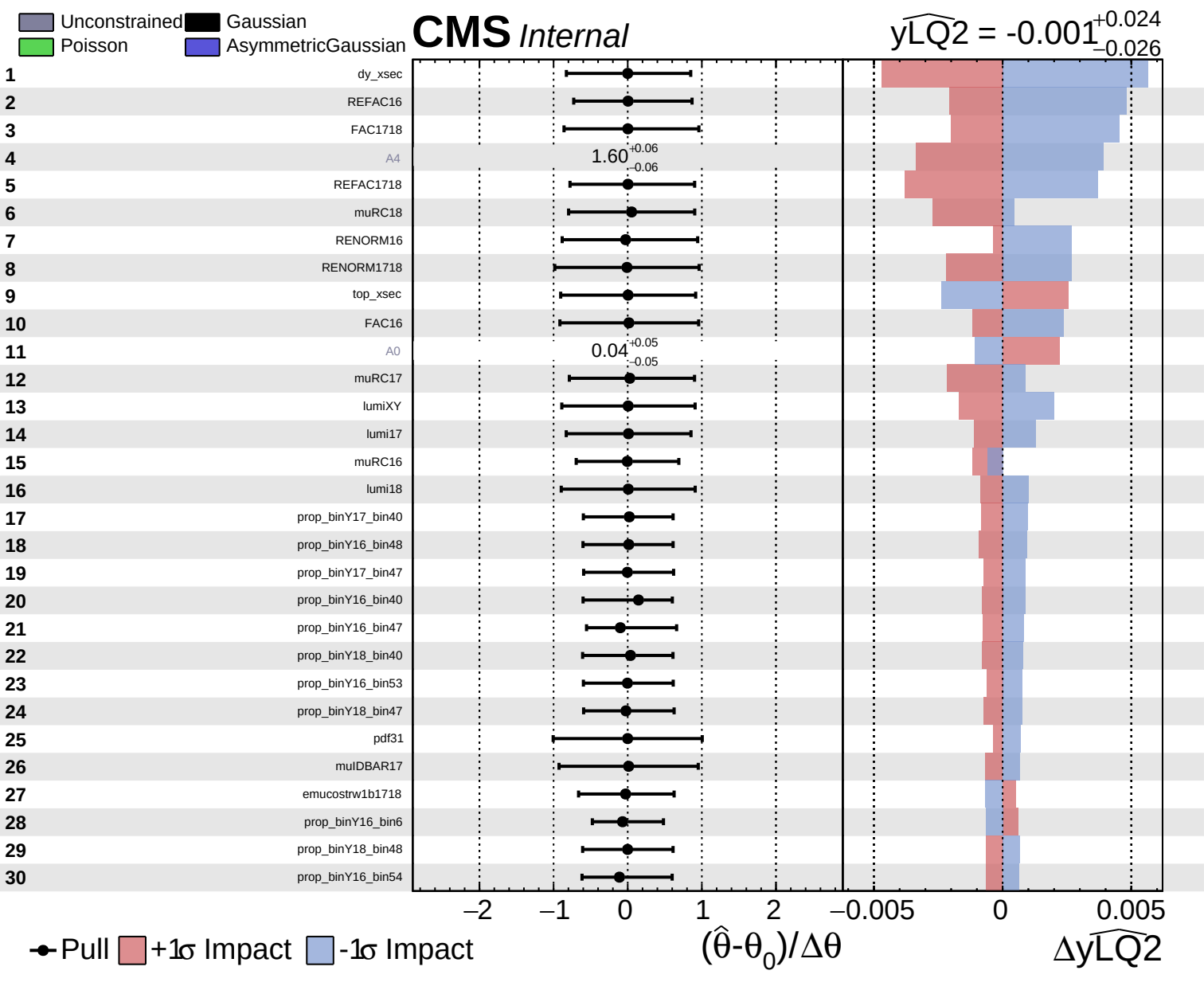
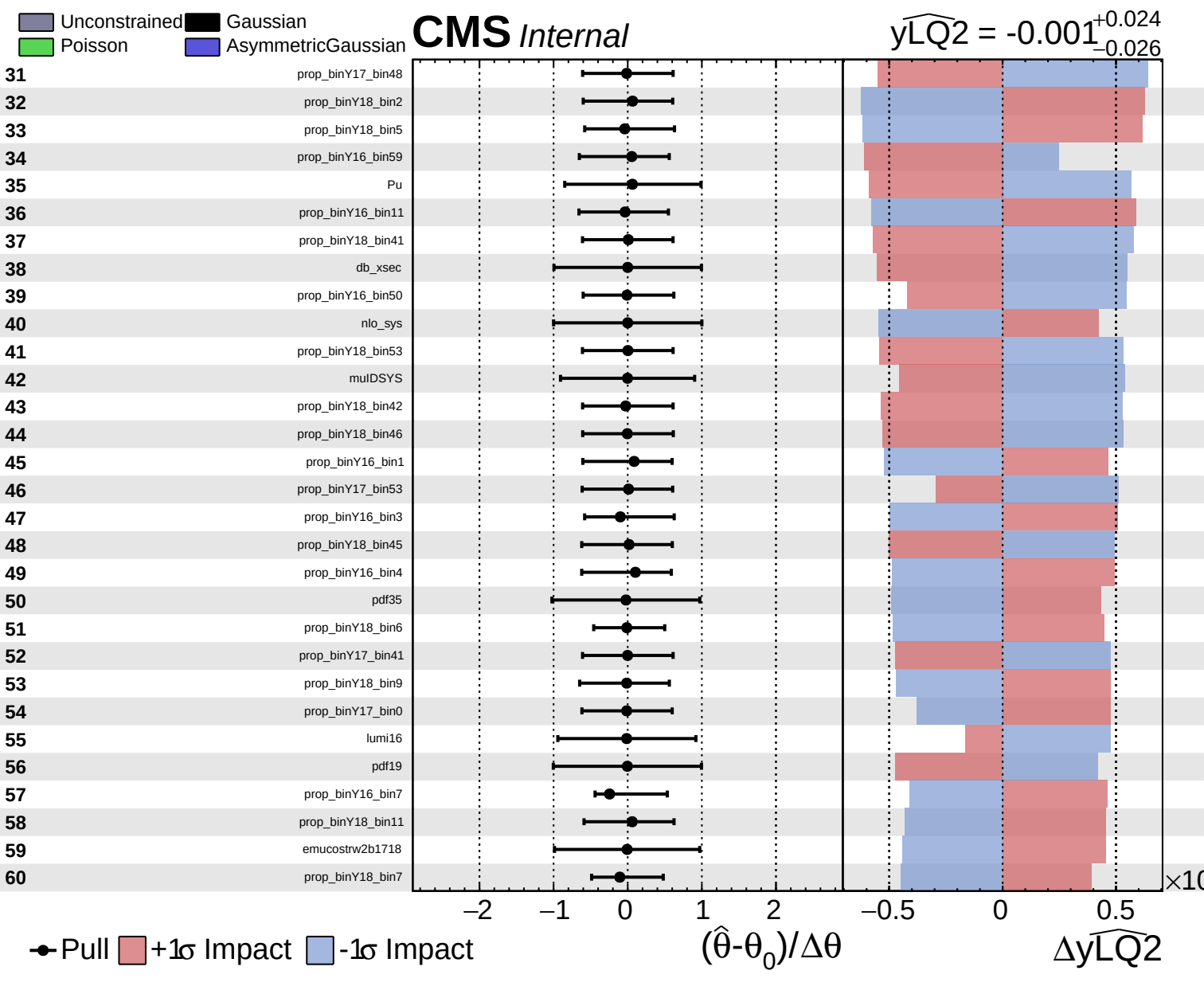

Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
$\widehat{yLQ2} = -0.001^{+0.024}_{-0.026}$
1 dy_xsec
2 REFAC16
3 FAC1718
4 A4
$1.60^{+0.06}_{-0.06}$
5 REFAC1718
6 muRC18
7 RENORM16
8 RENORM1718
9 top_xsec
10 FAC16
11 A0
$0.04^{+0.05}_{-0.05}$
12 muRC17
13 lumiXY
14 lumi17
15 muRC16
16 lumi18
17 prop_binY17_bin40
18 prop_binY16_bin48
19 prop_binY17_bin47
20 prop_binY16_bin40
21 prop_binY16_bin47
22 prop_binY18_bin40
23 prop_binY16_bin53
24 prop_binY18_bin47
25 pdf31
26 muIDBAR17
27 emucostrw1b1718
28 prop_binY16_bin6
29 prop_binY18_bin48
30 prop_binY16_bin54
−2 −1 0 1 2
−0.005 0 0.005
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{yLQ2}$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AsymmetricGaussian
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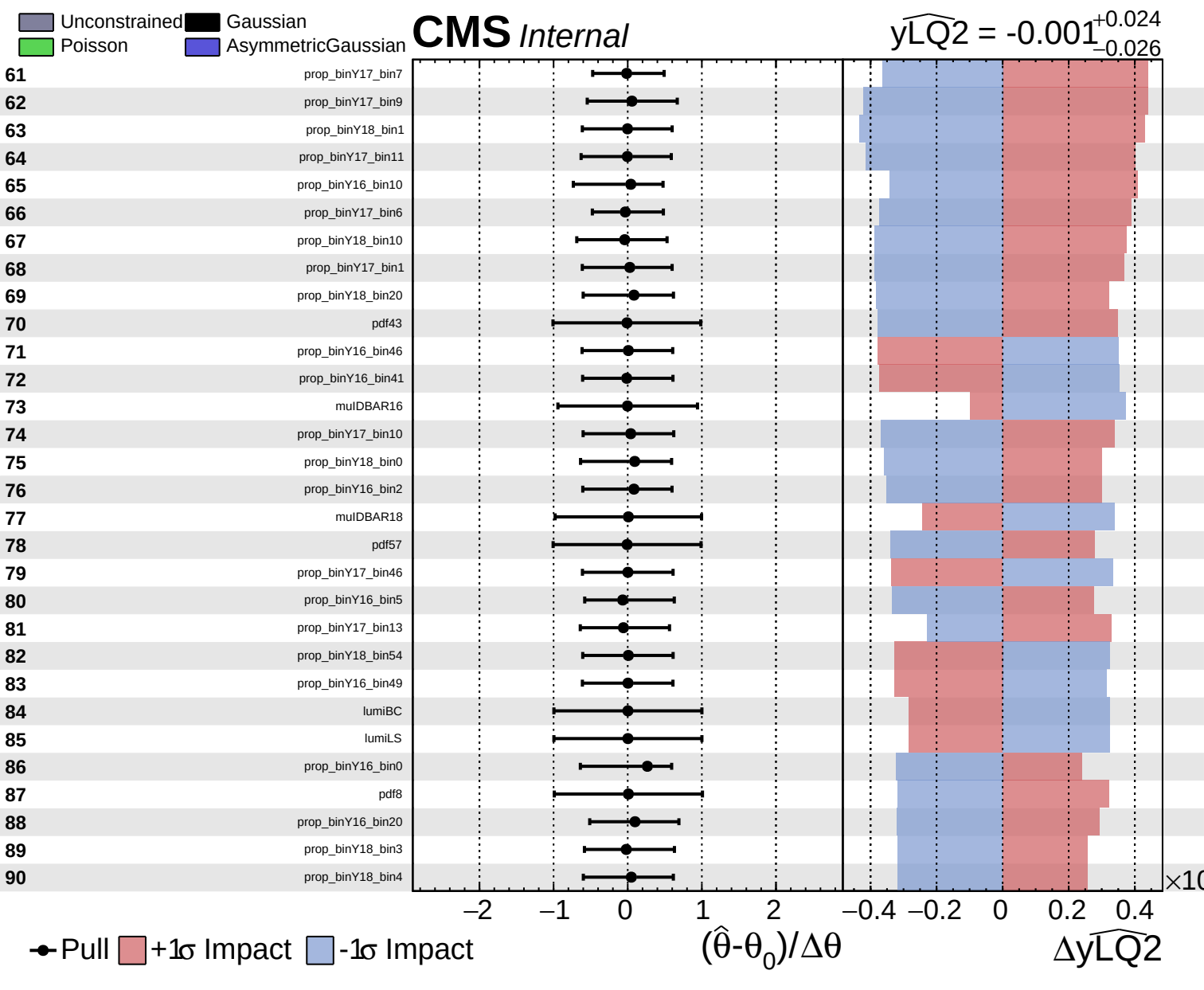
32 prop_binY18_bin2
33 prop_binY18_bin5
34 prop_binY16_bin59
35 Pu
36 prop_binY16_bin11
37 prop_binY18_bin41
38 db_xsec
39 prop_binY16_bin50
40 nlo_sys
41 prop_binY18_bin53
42 mulDSYS
43 prop_binY18_bin42
44 prop_binY18_bin46
45 prop_binY16_bin1
46 prop_binY17_bin53
47 prop_binY16_bin3
48 prop_binY18_bin45
49 prop_binY16_bin4
50 pdf35
51 prop_binY18_bin6
52 prop_binY17_bin41
53 prop_binY18_bin9
54 prop_binY17_bin0
55 lumi16
56 pdf19
57 prop_binY16_bin7
58 prop_binY18_bin11
59 emucostrw2b1718
60 prop_binY18_bin7
−2 −1 0 1 2
−0.5 0 0.5
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2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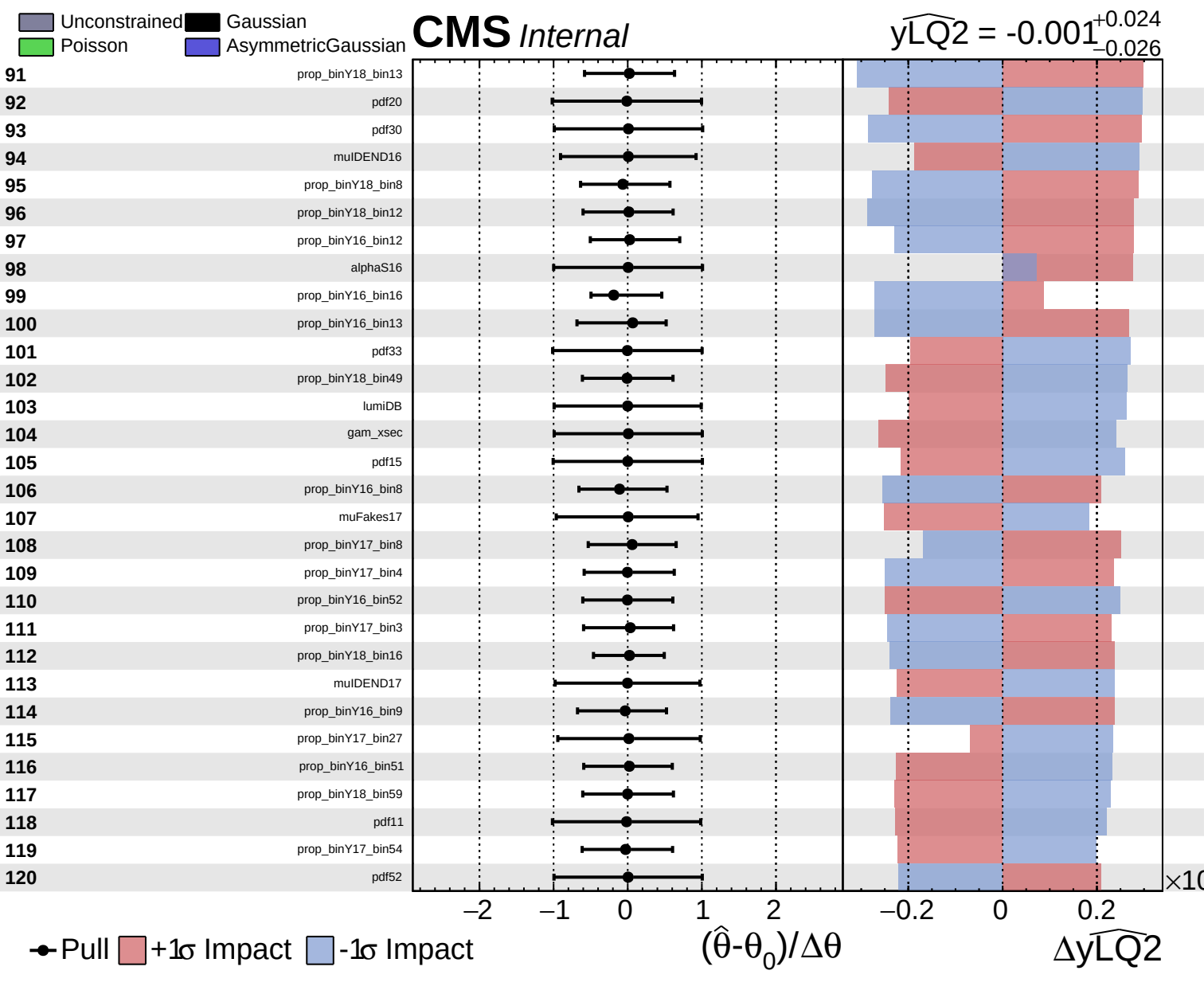
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = -0.001 +0.024 −0.026
61 prop_binY17_bin7
62 prop_binY17_bin9
63 prop_binY18_bin1
64 prop_binY17_bin11
65 prop_binY16_bin10
66 prop_binY17_bin6
67 prop_binY18_bin10
68 prop_binY17_bin1
69 prop_binY18_bin20
70 pdf43
71 prop_binY16_bin46
72 prop_binY16_bin41
73 muIDBAR16
74 prop_binY17_bin10
75 prop_binY18_bin0
76 prop_binY16_bin2
77 muIDBAR18
78 pdf57
79 prop_binY17_bin46
80 prop_binY16_bin5
81 prop_binY17_bin13
82 prop_binY18_bin54
83 prop_binY16_bin49
84 lumiBC
85 lumiLS
86 prop_binY16_bin0
87 pdf8
88 prop_binY16_bin20
89 prop_binY18_bin3
90 prop_binY18_bin4
×10
−2 −1 0 1 2
−0.4 −0.2 0 0.2 0.4
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2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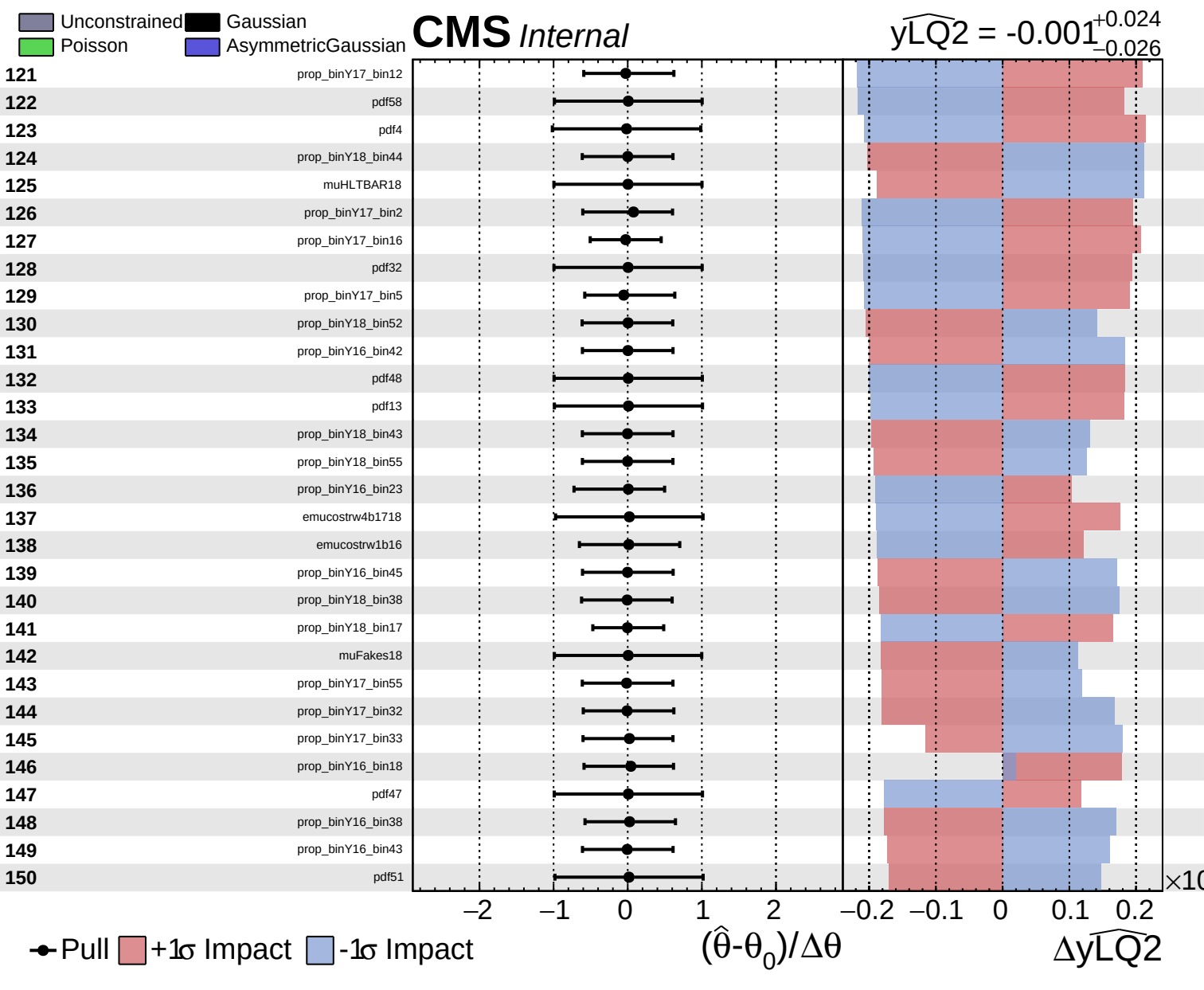
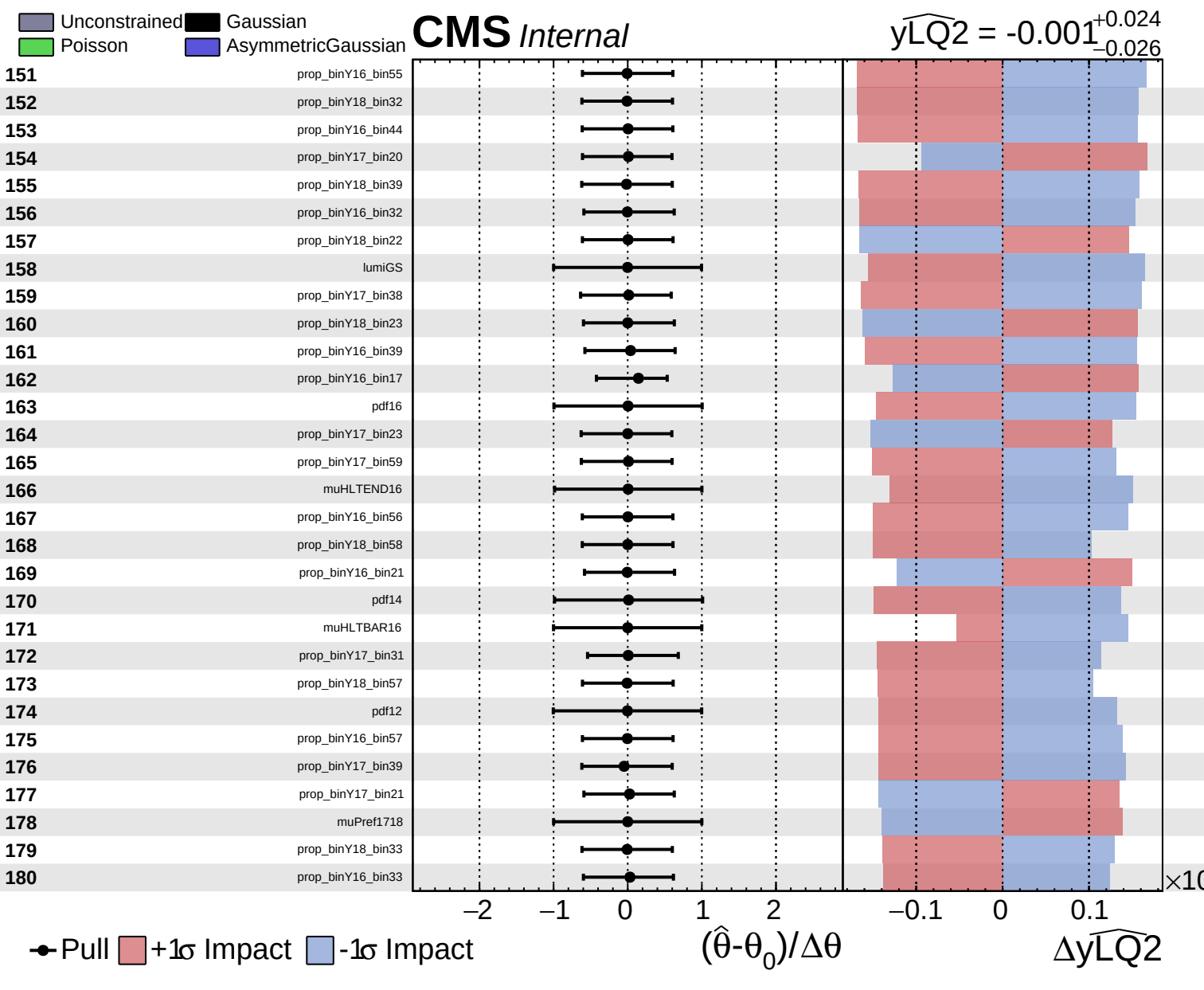
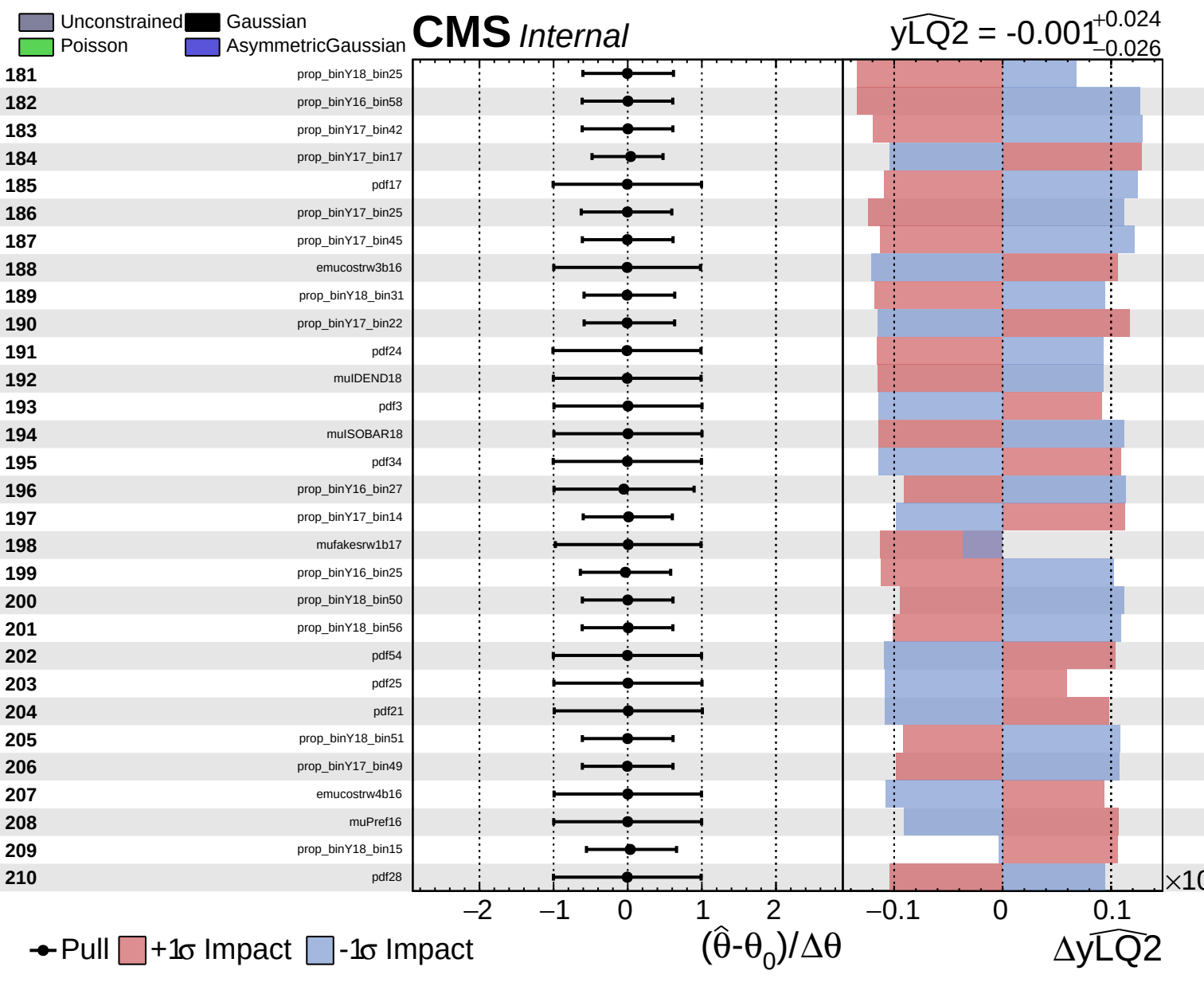
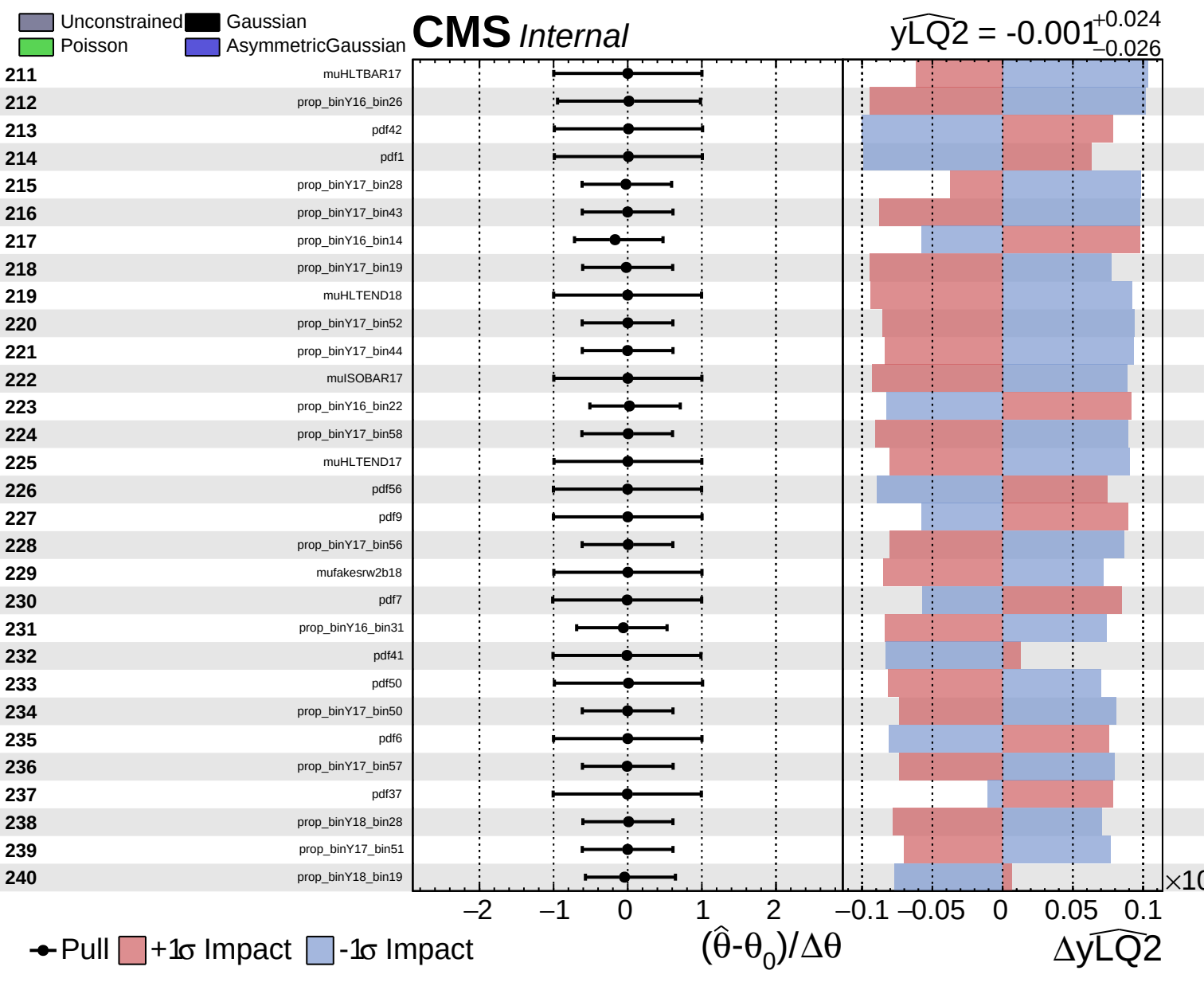
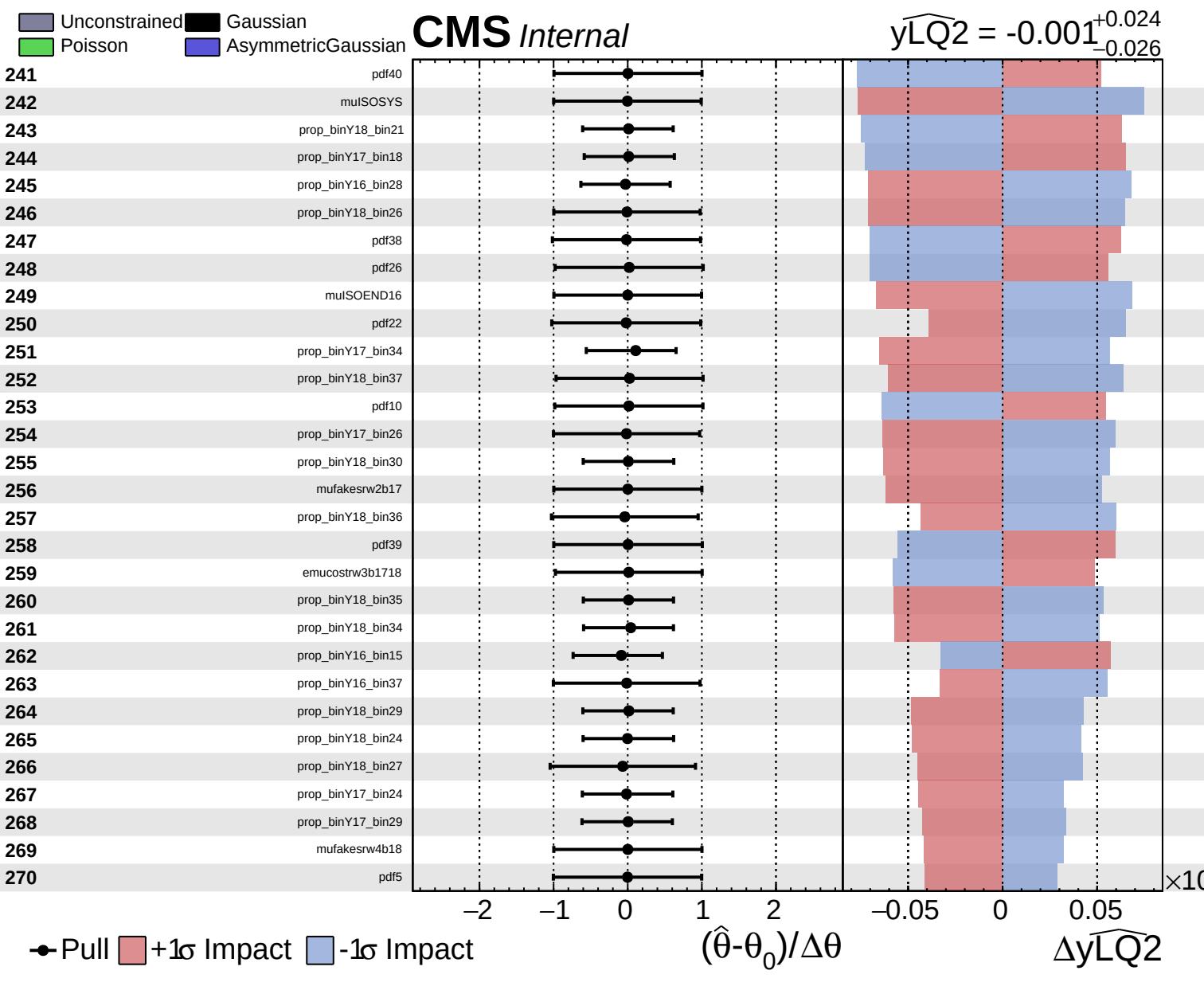
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = -0.001 +0.024 −0.026
91 prop_binY18_bin13
92 pdf20
93 pdf30
94 muIDEND16
95 prop_binY18_bin8
96 prop_binY18_bin12
97 prop_binY16_bin12
98 alphaS16
99 prop_binY16_bin16
100 prop_binY16_bin13
101 pdf33
102 prop_binY18_bin49
103 lumiDB
104 gam_xsec
105 pdf15
106 prop_binY16_bin8
107 muFakes17
108 prop_binY17_bin8
109 prop_binY17_bin4
110 prop_binY16_bin52
111 prop_binY17_bin3
112 prop_binY18_bin16
113 muIDEND17
114 prop_binY16_bin9
115 prop_binY17_bin27
116 prop_binY16_bin51
117 prop_binY18_bin59
118 pdf11
119 prop_binY17_bin54
120 pdf52
×10
−2 −1 0 1 2
−0.2 0 0.2
Pull +1σ Impact -1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = -0.001 +0.024 −0.026
121 prop_binY17_bin12
122 pdf58
123 pdf4
124 prop_binY18_bin44
125 muHLTBAR18
126 prop_binY17_bin2
127 prop_binY17_bin16
128 pdf32
129 prop_binY17_bin5
130 prop_binY18_bin52
131 prop_binY16_bin42
132 pdf48
133 pdf13
134 prop_binY18_bin43
135 prop_binY18_bin55
136 prop_binY16_bin23
137 emucostrw4b1718
138 emucostrw1b16
139 prop_binY16_bin45
140 prop_binY18_bin38
141 prop_binY18_bin17
142 muFakes18
143 prop_binY17_bin55
144 prop_binY17_bin32
145 prop_binY17_bin33
146 prop_binY16_bin18
147 pdf47
148 prop_binY16_bin38
149 prop_binY16_bin43
150 pdf51
−2 −1 0 1 2
−0.2 −0.1 0 0.1 0.2
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = -0.001 +0.024 −0.026
151 prop_binY16_bin55
152 prop_binY18_bin32
153 prop_binY16_bin44
154 prop_binY17_bin20
155 prop_binY18_bin39
156 prop_binY16_bin32
157 prop_binY18_bin22
158 lumiGS
159 prop_binY17_bin38
160 prop_binY18_bin23
161 prop_binY16_bin39
162 prop_binY16_bin17
163 pdf16
164 prop_binY17_bin23
165 prop_binY17_bin59
166 muHLTEND16
167 prop_binY16_bin56
168 prop_binY18_bin58
169 prop_binY16_bin21
170 pdf14
171 muHLTBAR16
172 prop_binY17_bin31
173 prop_binY18_bin57
174 pdf12
175 prop_binY16_bin57
176 prop_binY17_bin39
177 prop_binY17_bin21
178 muPref1718
179 prop_binY18_bin33
180 prop_binY16_bin33
×10
−2 −1 0 1 2
−0.1 0 0.1
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = -0.001 +0.024 −0.026
181 prop_binY18_bin25
182 prop_binY16_bin58
183 prop_binY17_bin42
184 prop_binY17_bin17
185 pdf17
186 prop_binY17_bin25
187 prop_binY17_bin45
188 emucostrw3b16
189 prop_binY18_bin31
190 prop_binY17_bin22
191 pdf24
192 muIDEND18
193 pdf3
194 muISOBAR18
195 pdf34
196 prop_binY16_bin27
197 prop_binY17_bin14
198 mufakesrw1b17
199 prop_binY16_bin25
200 prop_binY18_bin50
201 prop_binY18_bin56
202 pdf54
203 pdf25
204 pdf21
205 prop_binY18_bin51
206 prop_binY17_bin49
207 emucostrw4b16
208 muPref16
209 prop_binY18_bin15
210 pdf28
−2 −1 0 1 2
−0.1 0 0.1
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = -0.001 +0.024 −0.026
211 muHLTBAR17
212 prop_binY16_bin26
213 pdf42
214 pdf1
215 prop_binY17_bin28
216 prop_binY17_bin43
217 prop_binY16_bin14
218 prop_binY17_bin19
219 muHLTEND18
220 prop_binY17_bin52
221 prop_binY17_bin44
222 muISOBAR17
223 prop_binY16_bin22
224 prop_binY17_bin58
225 muHLTEND17
226 pdf56
227 pdf9
228 prop_binY17_bin56
229 mufakesrw2b18
230 pdf7
231 prop_binY16_bin31
232 pdf41
233 pdf50
234 prop_binY17_bin50
235 pdf6
236 prop_binY17_bin57
237 pdf37
238 prop_binY18_bin28
239 prop_binY17_bin51
240 prop_binY18_bin19
×10
−2 −1 0 1 2
−0.1 −0.05 0 0.05 0.1
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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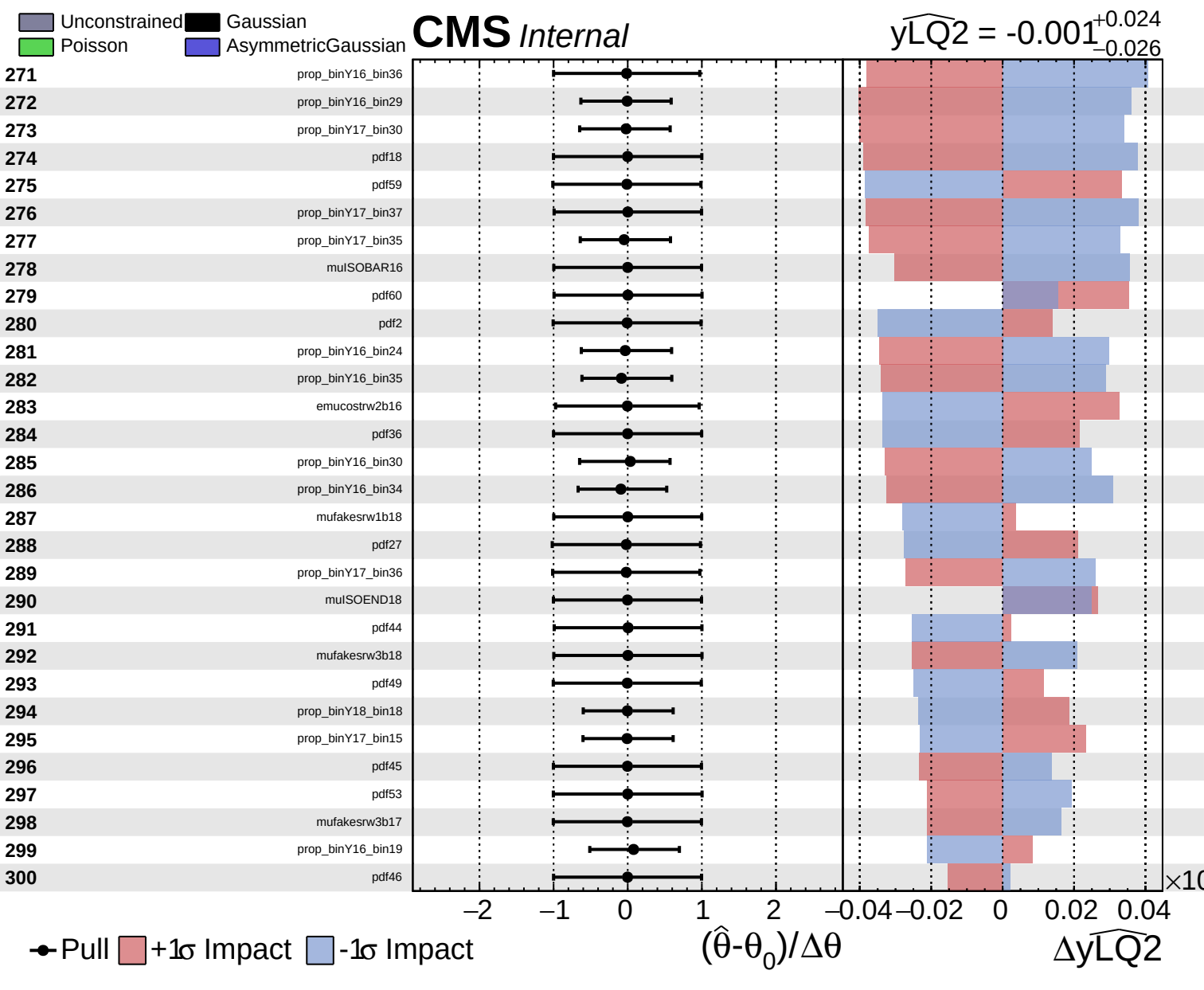
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = -0.001 +0.024 −0.026
241 pdf40
242 muISOSYS
243 prop_binY18_bin21
244 prop_binY17_bin18
245 prop_binY16_bin28
246 prop_binY18_bin26
247 pdf38
248 pdf26
249 muISOEND16
250 pdf22
251 prop_binY17_bin34
252 prop_binY18_bin37
253 pdf10
254 prop_binY17_bin26
255 prop_binY18_bin30
256 mufakesrw2b17
257 prop_binY18_bin36
258 pdf39
259 emucostrw3b1718
260 prop_binY18_bin35
261 prop_binY18_bin34
262 prop_binY16_bin15
263 prop_binY16_bin37
264 prop_binY18_bin29
265 prop_binY18_bin24
266 prop_binY18_bin27
267 prop_binY17_bin24
268 prop_binY17_bin29
269 mufakesrw4b18
270 pdf5
−2 −1 0 1 2
−0.05 0 0.05
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = -0.001 +0.024 −0.026
271 prop_binY16_bin36
272 prop_binY16_bin29
273 prop_binY17_bin30
274 pdf18
275 pdf59
276 prop_binY17_bin37
277 prop_binY17_bin35
278 muISOBAR16
279 pdf60
280 pdf2
281 prop_binY16_bin24
282 prop_binY16_bin35
283 emucostrw2b16
284 pdf36
285 prop_binY16_bin30
286 prop_binY16_bin34
287 mufakesrw1b18
288 pdf27
289 prop_binY17_bin36
290 muISOEND18
291 pdf44
292 mufakesrw3b18
293 pdf49
294 prop_binY18_bin18
295 prop_binY17_bin15
296 pdf45
297 pdf53
298 mufakesrw3b17
299 prop_binY16_bin19
300 pdf46
×10
−2 −1 0 1 2
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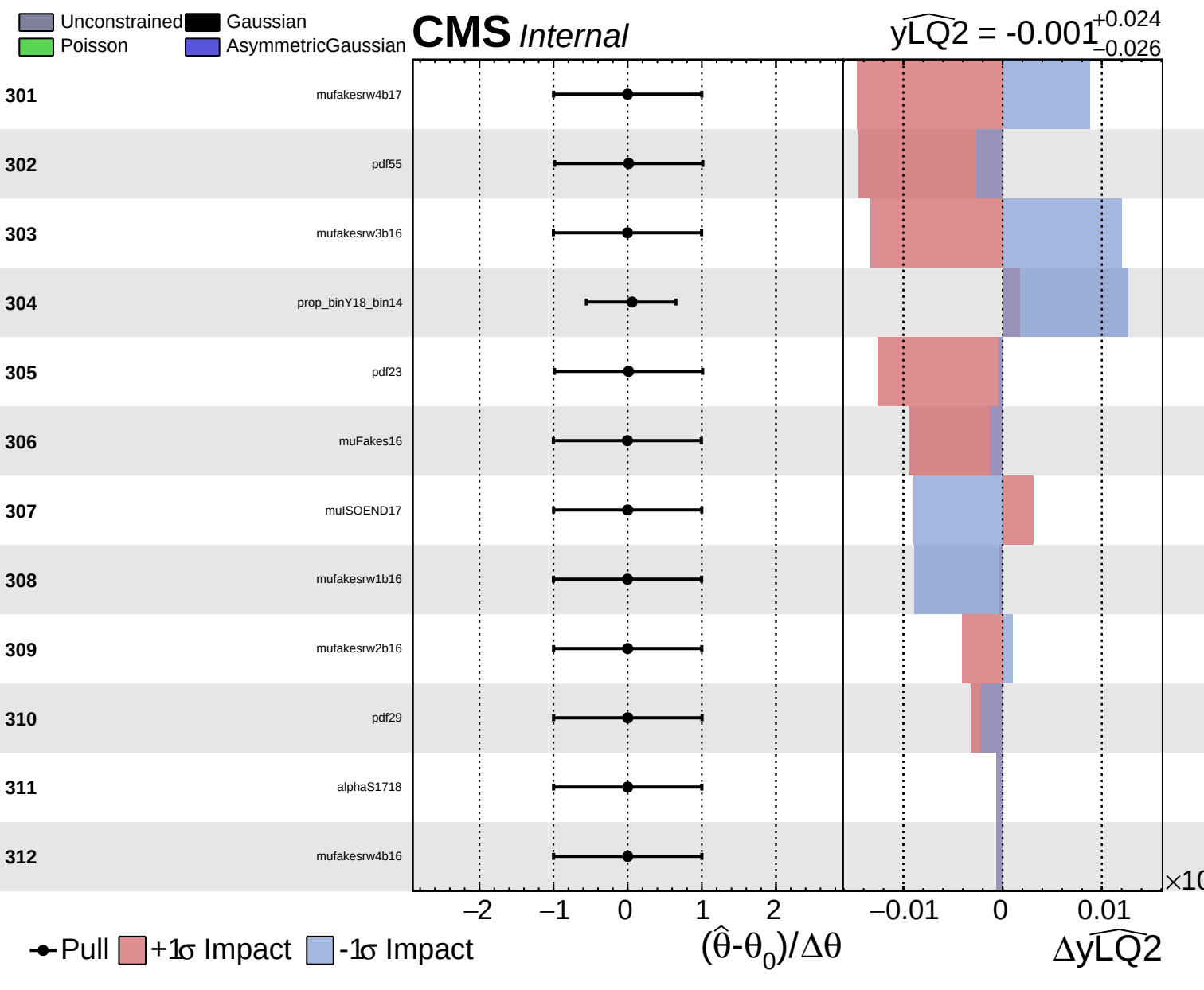
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = -0.001 +0.024 −0.026
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302 pdf55
303 mufakesrw3b16
304 prop_binY18_bin14
305 pdf23
306 muFakes16
307 muISOEND17
308 mufakesrw1b16
309 mufakesrw2b16
310 pdf29
311 alphaS1718
312 mufakesrw4b16
−2 −1 0 1 2
−0.01 0 0.01
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2