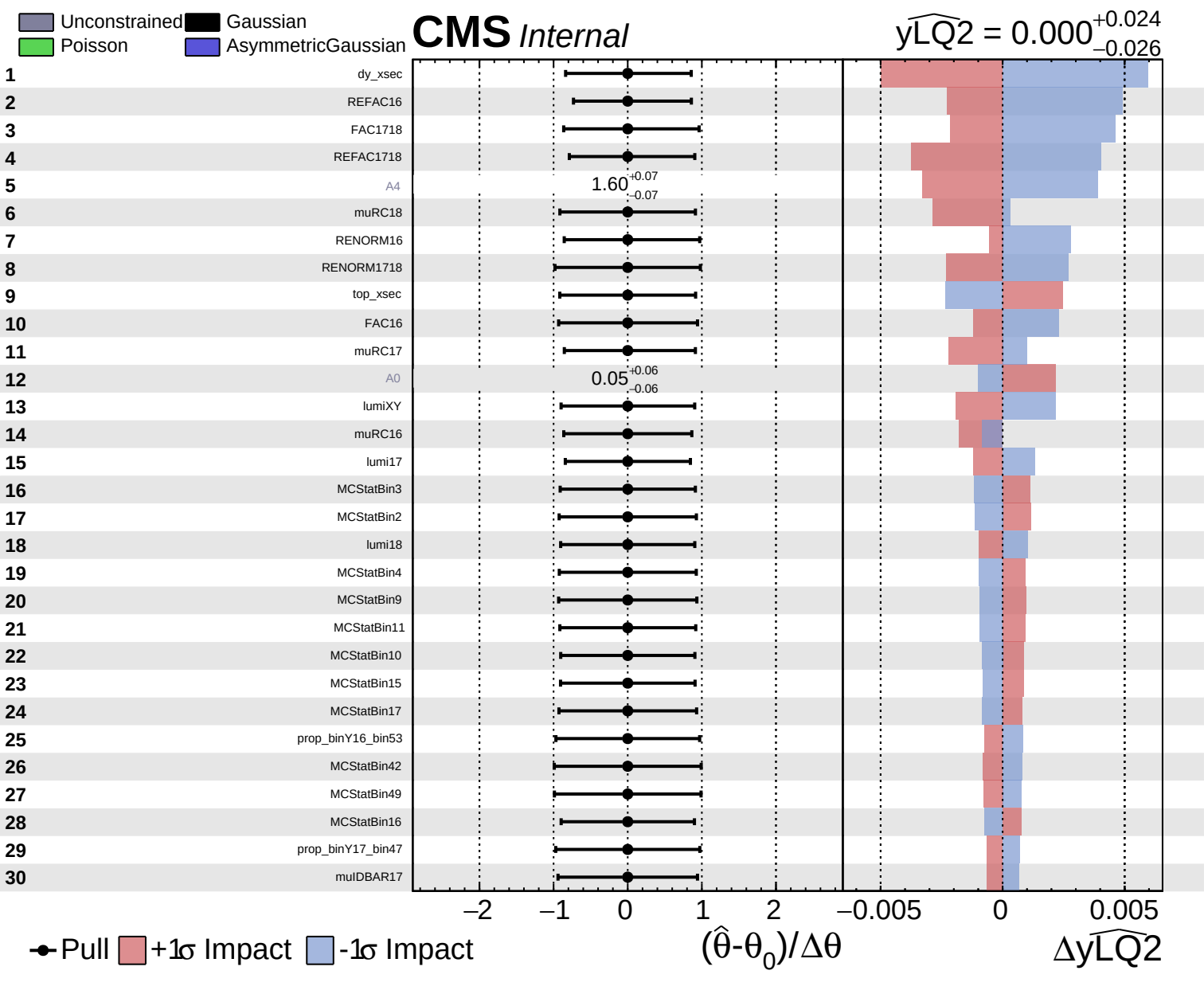
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Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
1 dy_xsec
2 REFAC16
3 FAC1718
4 REFAC1718
5 A4
1.60 +0.07 −0.07
6 muRC18
7 RENORM16
8 RENORM1718
9 top_xsec
10 FAC16
11 muRC17
12 A0
0.05 +0.06 −0.06
13 lumiXY
14 muRC16
15 lumi17
16 MCStatBin3
17 MCStatBin2
18 lumi18
19 MCStatBin4
20 MCStatBin9
21 MCStatBin11
22 MCStatBin10
23 MCStatBin15
24 MCStatBin17
25 prop_binY16_bin53
26 MCStatBin42
27 MCStatBin49
28 MCStatBin16
29 prop_binY17_bin47
30 muIDBAR17
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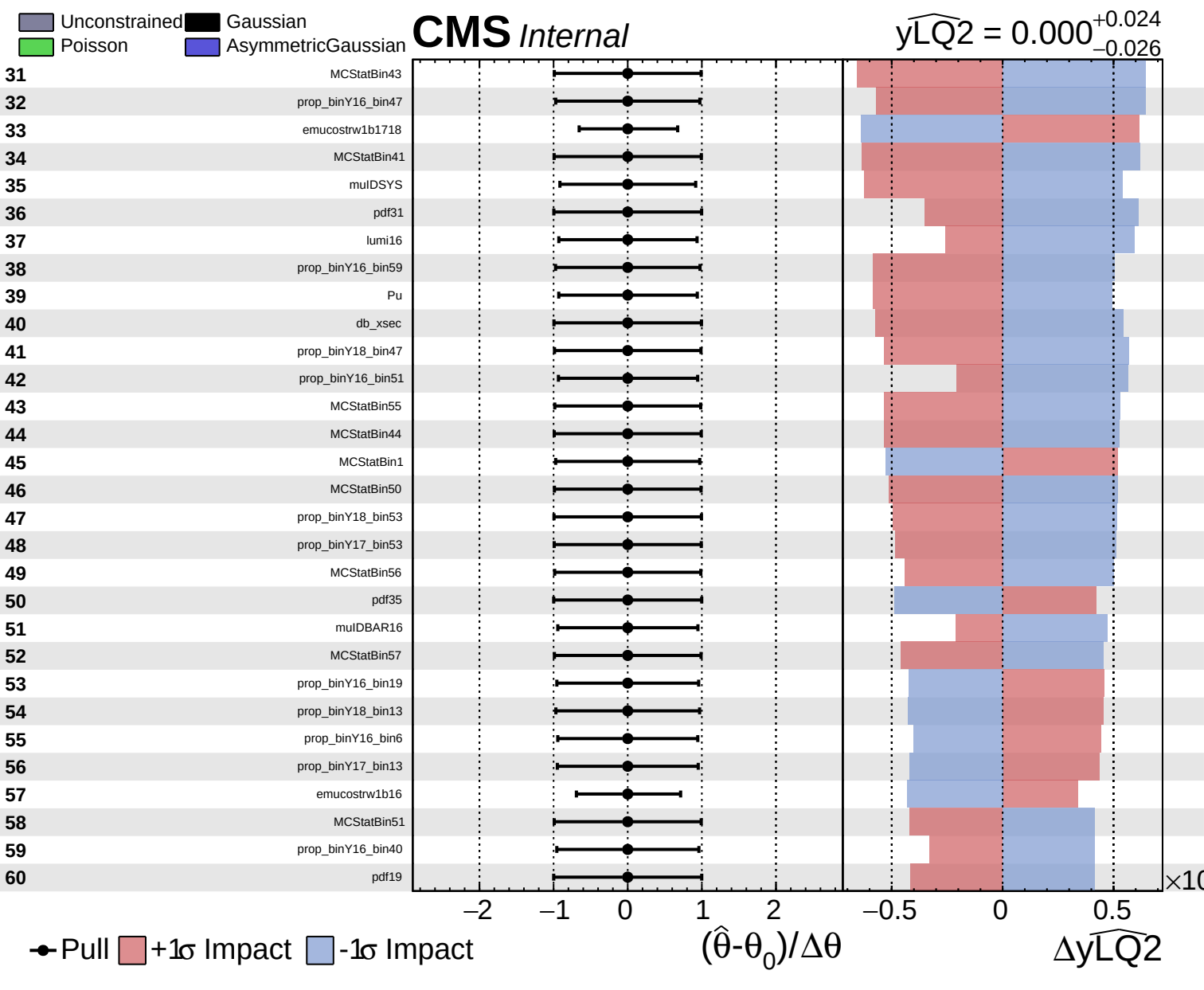
−0.005 0 0.005
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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AsymmetricGaussian
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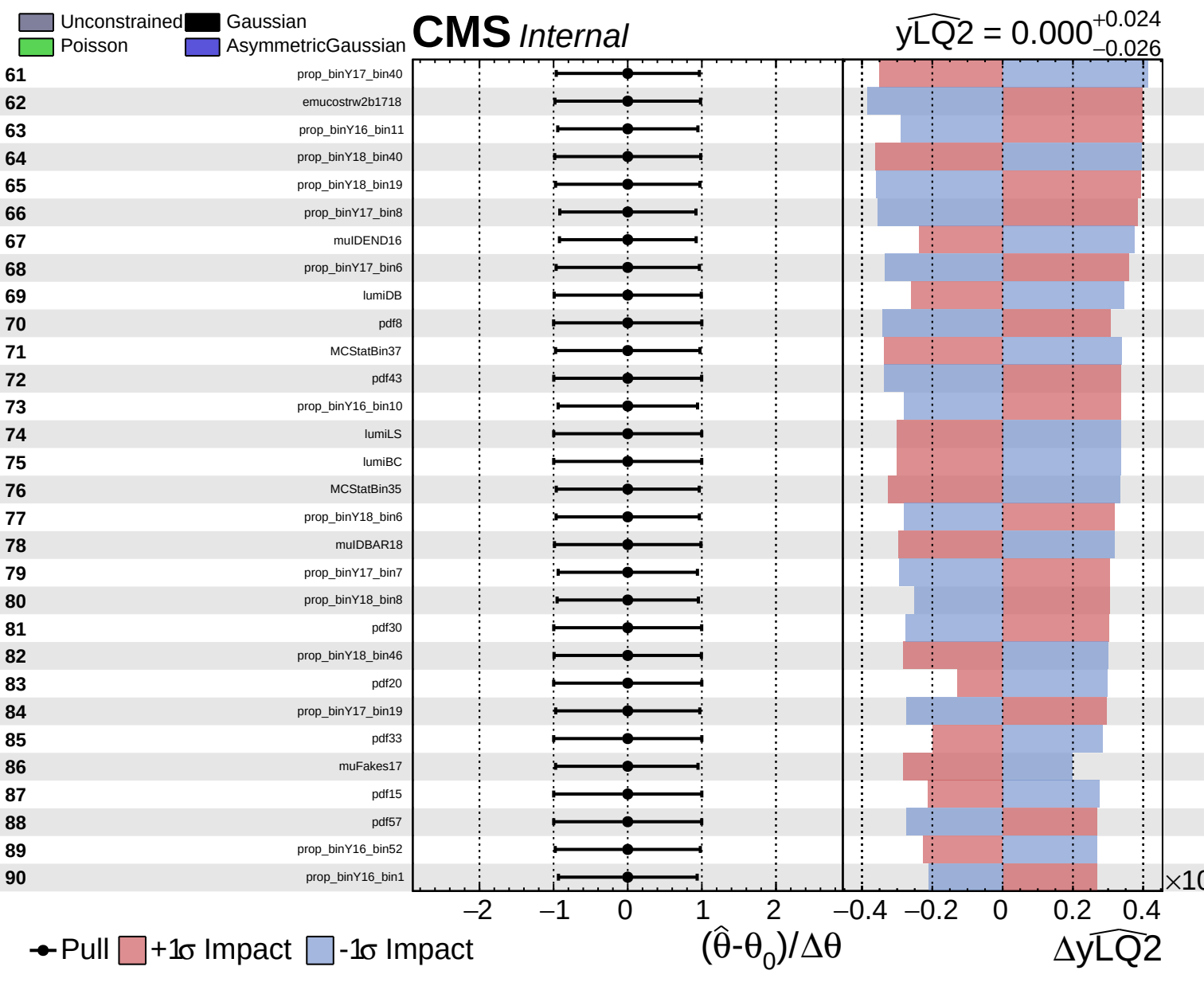
yLQ2 = 0.000 +0.024 −0.026
31 MCStatBin43
32 prop_binY16_bin47
33 emucostrw1b1718
34 MCStatBin41
35 muIDSYS
36 pdf31
37 lumi16
38 prop_binY16_bin59
39 Pu
40 db_xsec
41 prop_binY18_bin47
42 prop_binY16_bin51
43 MCStatBin55
44 MCStatBin44
45 MCStatBin1
46 MCStatBin50
47 prop_binY18_bin53
48 prop_binY17_bin53
49 MCStatBin56
50 pdf35
51 muIDBAR16
52 MCStatBin57
53 prop_binY16_bin19
54 prop_binY18_bin13
55 prop_binY16_bin6
56 prop_binY17_bin13
57 emucostrw1b16
58 MCStatBin51
59 prop_binY16_bin40
60 pdf19
−2
−1
0
1
2
−0.5
0
0.5
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2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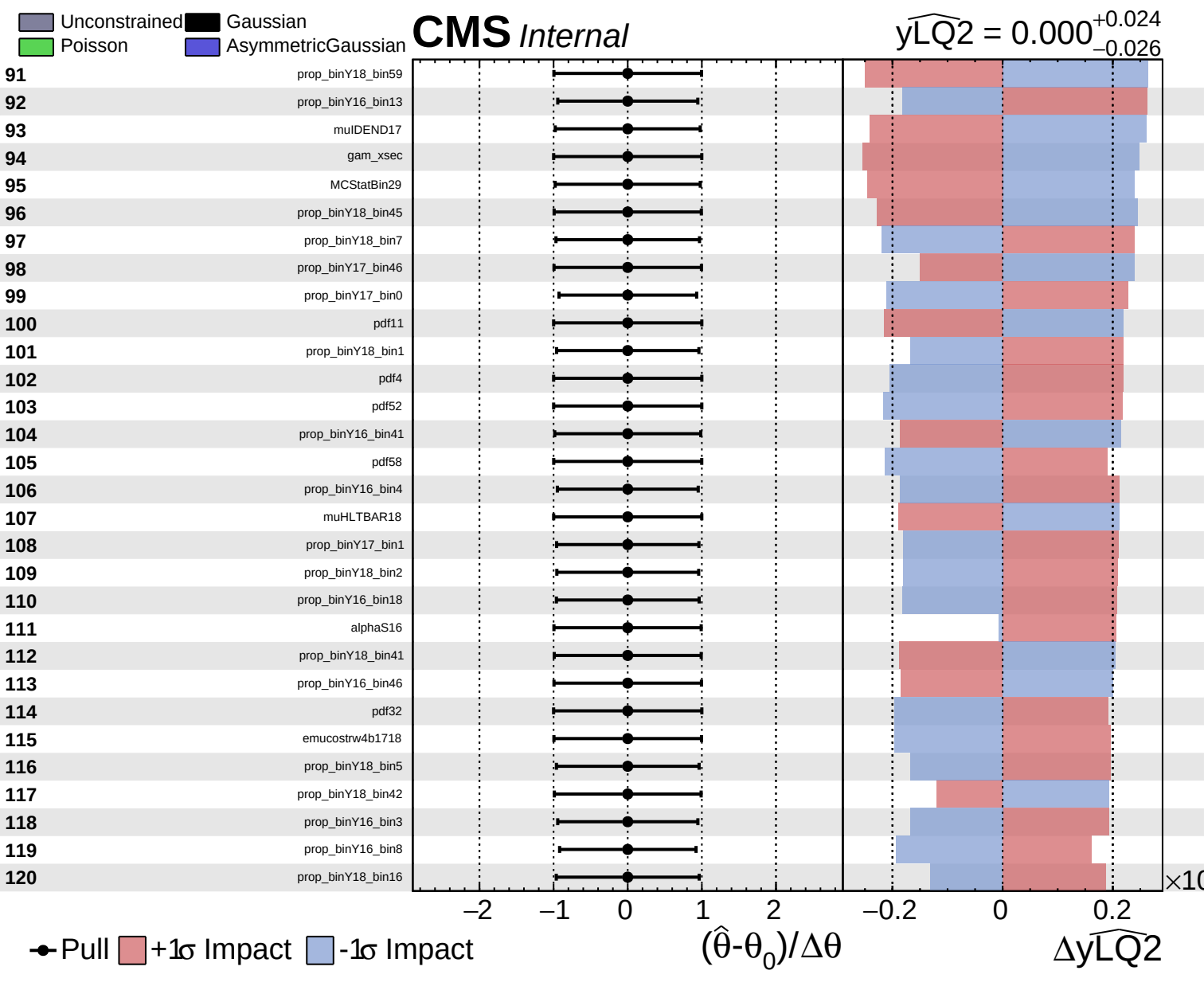
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
61 prop_binY17_bin40
62 emucostrw2b1718
63 prop_binY16_bin11
64 prop_binY18_bin40
65 prop_binY18_bin19
66 prop_binY17_bin8
67 muIDEND16
68 prop_binY17_bin6
69 lumiDB
70 pdf8
71 MCStatBin37
72 pdf43
73 prop_binY16_bin10
74 lumiLS
75 lumiBC
76 MCStatBin35
77 prop_binY18_bin6
78 muIDBAR18
79 prop_binY17_bin7
80 prop_binY18_bin8
81 pdf30
82 prop_binY18_bin46
83 pdf20
84 prop_binY17_bin19
85 pdf33
86 muFakes17
87 pdf15
88 pdf57
89 prop_binY16_bin52
90 prop_binY16_bin1
×10
−2 −1 0 1 2
−0.4 −0.2 0 0.2 0.4
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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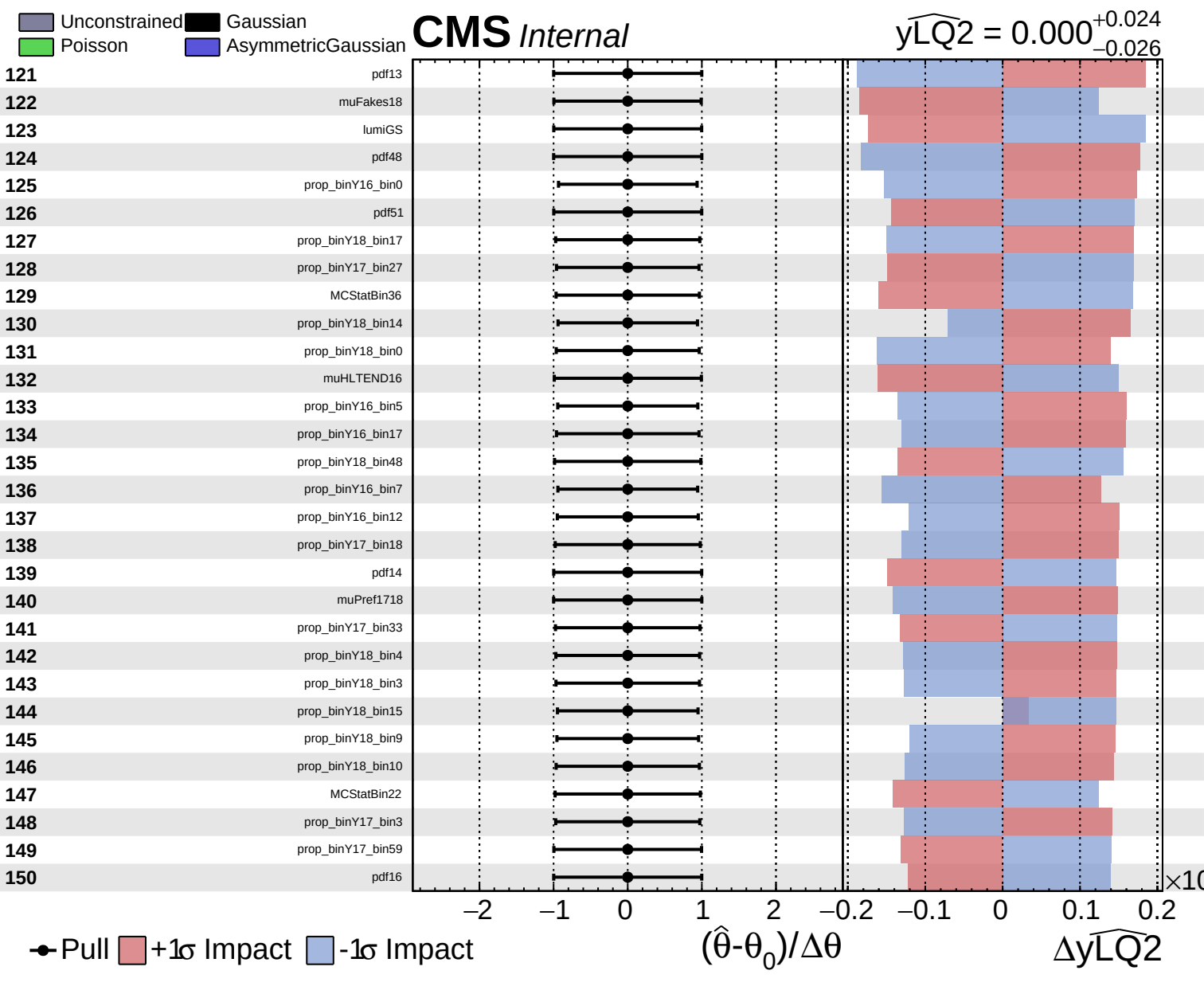
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
yLQ2 = 0.000 +0.024 −0.026
91 prop_binY18_bin59
92 prop_binY16_bin13
93 muIDEND17
94 gam_xsec
95 MCStatBin29
96 prop_binY18_bin45
97 prop_binY18_bin7
98 prop_binY17_bin46
99 prop_binY17_bin0
100 pdf11
101 prop_binY18_bin1
102 pdf4
103 pdf52
104 prop_binY16_bin41
105 pdf58
106 prop_binY16_bin4
107 muHLTBAR18
108 prop_binY17_bin1
109 prop_binY18_bin2
110 prop_binY16_bin18
111 alphaS16
112 prop_binY18_bin41
113 prop_binY16_bin46
114 pdf32
115 emucostrw4b1718
116 prop_binY18_bin5
117 prop_binY18_bin42
118 prop_binY16_bin3
119 prop_binY16_bin8
120 prop_binY18_bin16
−2 −1 0 1 2
−0.2 0 0.2
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔyLQ2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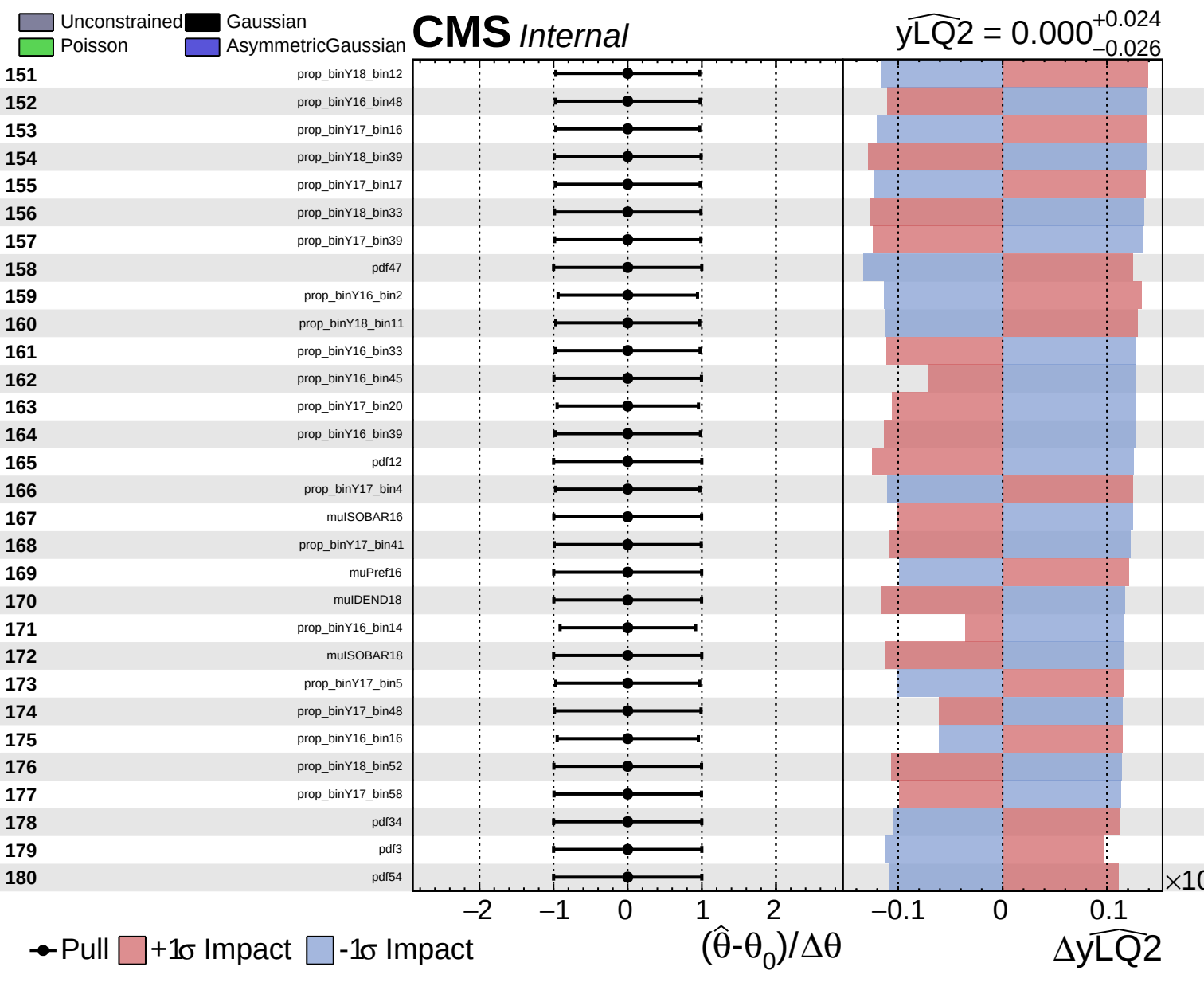
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
121 pdf13
122 muFakes18
123 lumiGS
124 pdf48
125 prop_binY16_bin0
126 pdf51
127 prop_binY18_bin17
128 prop_binY17_bin27
129 MCStatBin36
130 prop_binY18_bin14
131 prop_binY18_bin0
132 muHLTEND16
133 prop_binY16_bin5
134 prop_binY16_bin17
135 prop_binY18_bin48
136 prop_binY16_bin7
137 prop_binY16_bin12
138 prop_binY17_bin18
139 pdf14
140 muPref1718
141 prop_binY17_bin33
142 prop_binY18_bin4
143 prop_binY18_bin3
144 prop_binY18_bin15
145 prop_binY18_bin9
146 prop_binY18_bin10
147 MCStatBin22
148 prop_binY17_bin3
149 prop_binY17_bin59
150 pdf16
−2 −1 0 1 2
−0.2 −0.1 0 0.1 0.2
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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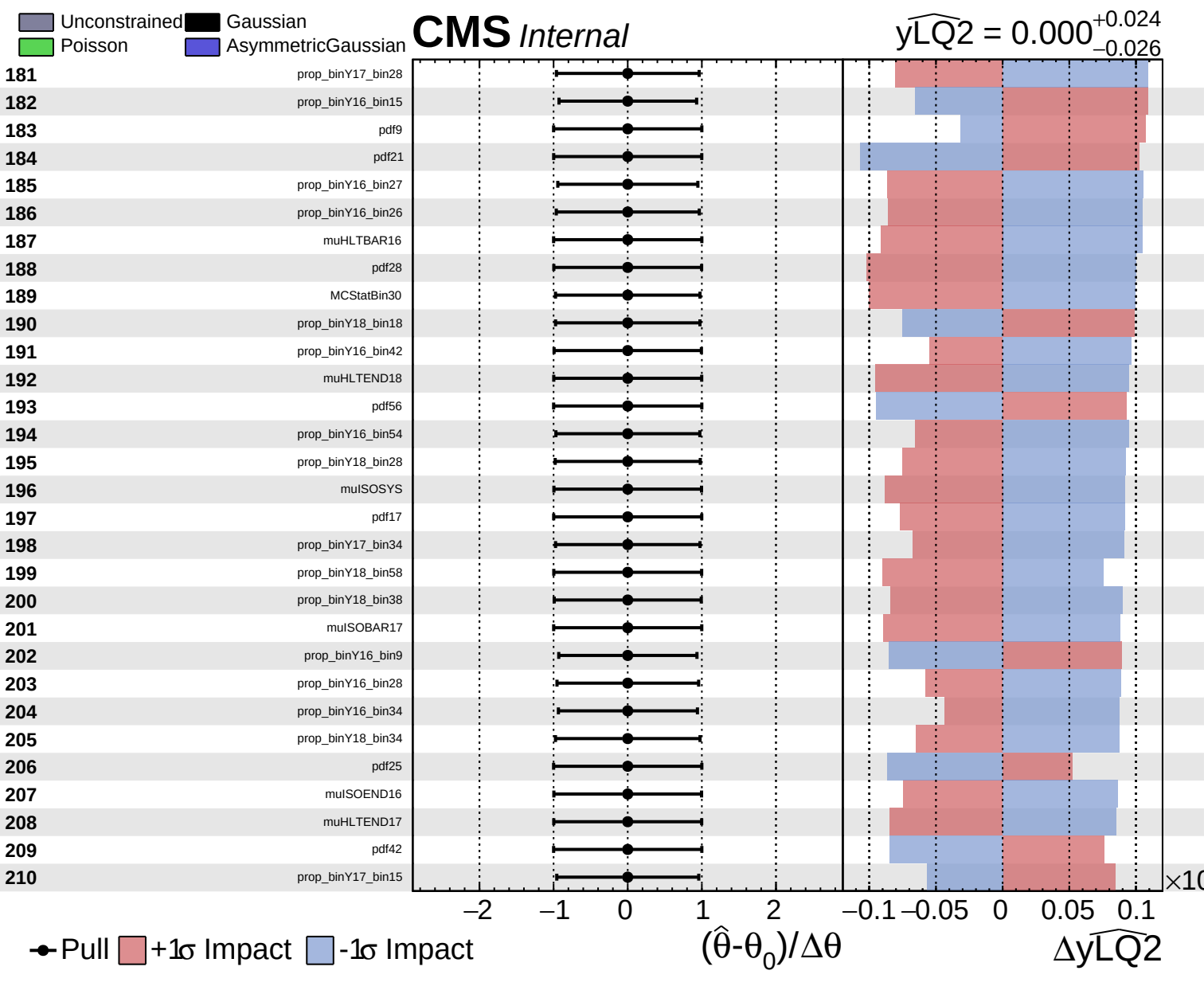
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
151 prop_binY18_bin12
152 prop_binY16_bin48
153 prop_binY17_bin16
154 prop_binY18_bin39
155 prop_binY17_bin17
156 prop_binY18_bin33
157 prop_binY17_bin39
158 pdf47
159 prop_binY16_bin2
160 prop_binY18_bin11
161 prop_binY16_bin33
162 prop_binY16_bin45
163 prop_binY17_bin20
164 prop_binY16_bin39
165 pdf12
166 prop_binY17_bin4
167 muISOBAR16
168 prop_binY17_bin41
169 muPref16
170 muIDEND18
171 prop_binY16_bin14
172 muISOBAR18
173 prop_binY17_bin5
174 prop_binY17_bin48
175 prop_binY16_bin16
176 prop_binY18_bin52
177 prop_binY17_bin58
178 pdf34
179 pdf3
180 pdf54
−2
−1
0
1
2
−0.1
0
0.1
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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Poisson
AsymmetricGaussian
CMS Internal
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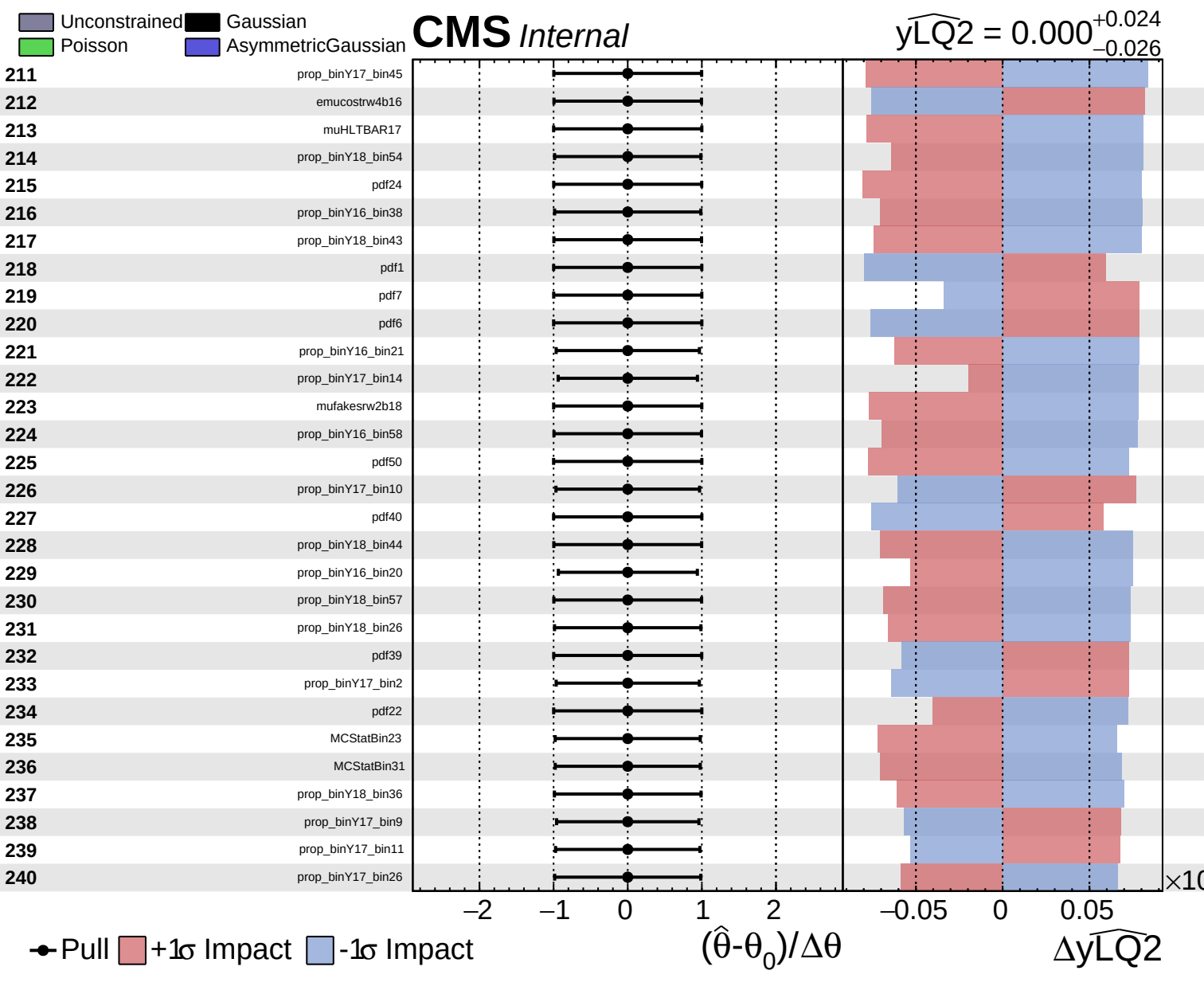
181 prop_binY17_bin28
182 prop_binY16_bin15
183 pdf9
184 pdf21
185 prop_binY16_bin27
186 prop_binY16_bin26
187 muHLTBAR16
188 pdf28
189 MCStatBin30
190 prop_binY18_bin18
191 prop_binY16_bin42
192 muHLTEND18
193 pdf56
194 prop_binY16_bin54
195 prop_binY18_bin28
196 muISOSYS
197 pdf17
198 prop_binY17_bin34
199 prop_binY18_bin58
200 prop_binY18_bin38
201 muISOBAR17
202 prop_binY16_bin9
203 prop_binY16_bin28
204 prop_binY16_bin34
205 prop_binY18_bin34
206 pdf25
207 muISOEND16
208 muHLTEND17
209 pdf42
210 prop_binY17_bin15
×10
−2 −1 0 1 2
−0.1 −0.05 0 0.05 0.1
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{yLQ2}$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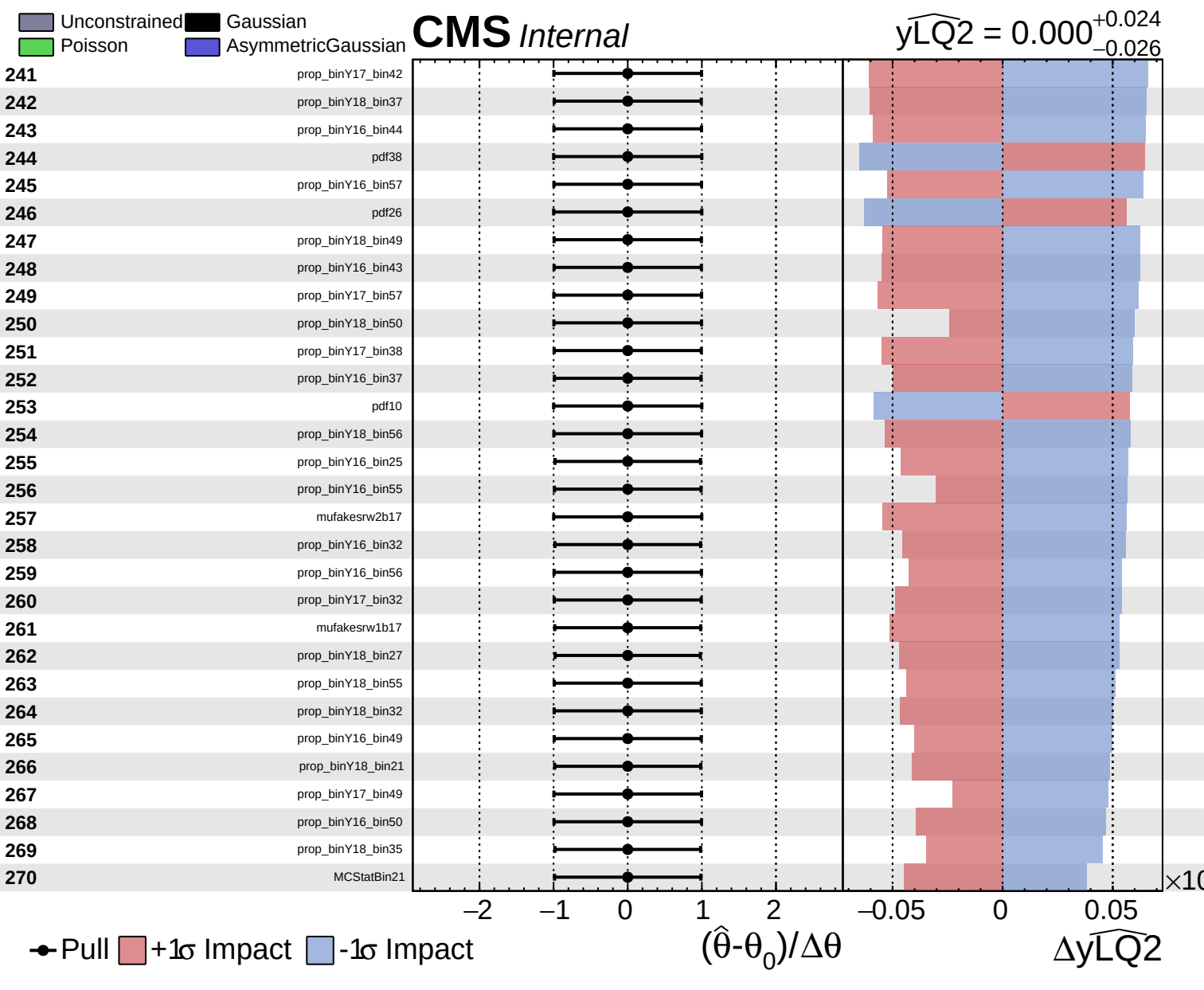
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
$\widehat{yLQ2} = 0.000^{+0.024}_{-0.026}$
211 prop_binY17_bin45
212 emucostrw4b16
213 muHLTBAR17
214 prop_binY18_bin54
215 pdf24
216 prop_binY16_bin38
217 prop_binY18_bin43
218 pdf1
219 pdf7
220 pdf6
221 prop_binY16_bin21
222 prop_binY17_bin14
223 mufakesrw2b18
224 prop_binY16_bin58
225 pdf50
226 prop_binY17_bin10
227 pdf40
228 prop_binY18_bin44
229 prop_binY16_bin20
230 prop_binY18_bin57
231 prop_binY18_bin26
232 pdf39
233 prop_binY17_bin2
234 pdf22
235 MCStatBin23
236 MCStatBin31
237 prop_binY18_bin36
238 prop_binY17_bin9
239 prop_binY17_bin11
240 prop_binY17_bin26
×10
−2
−1
0
1
2
−0.05
0
0.05
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{yLQ2}$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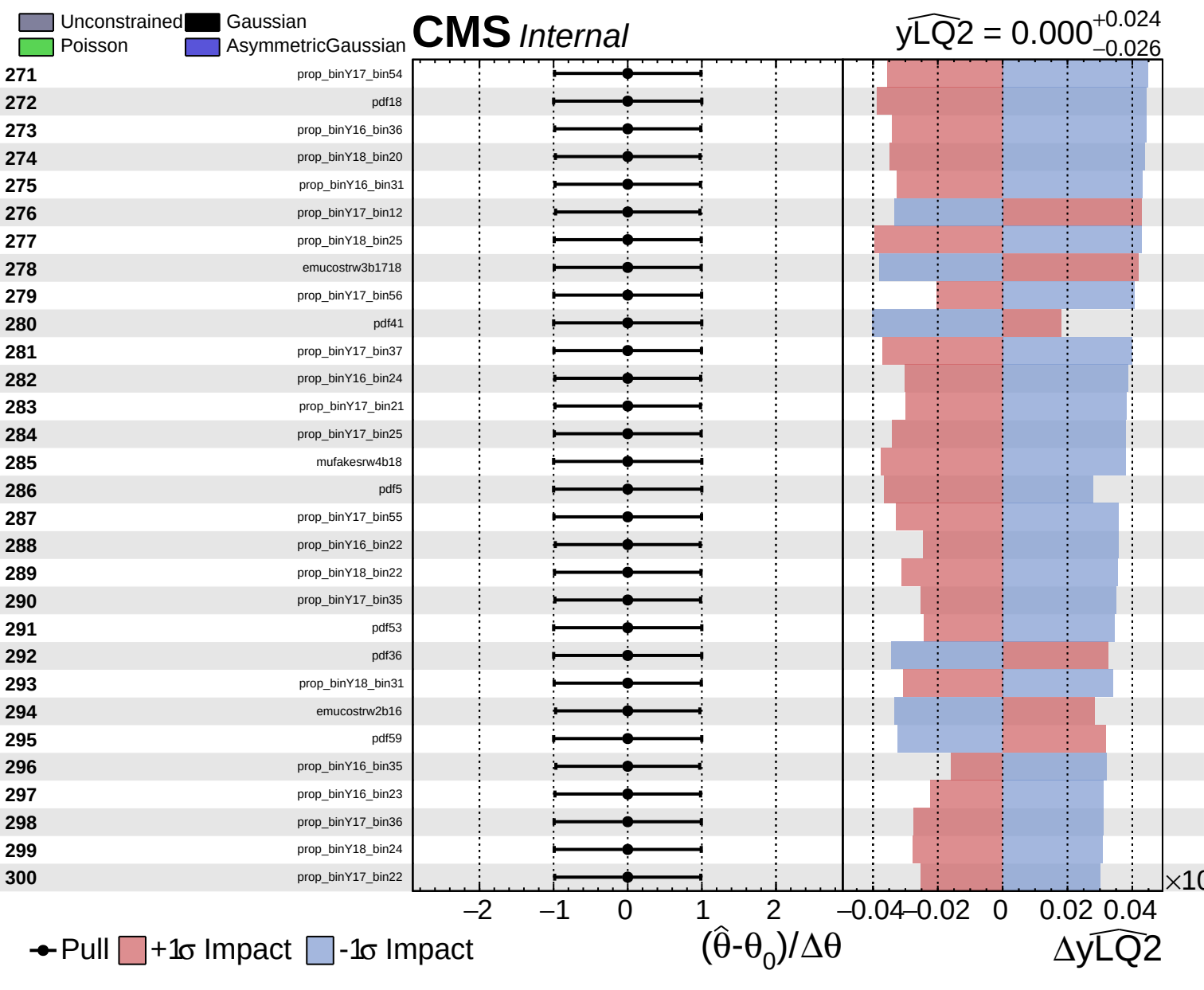
Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
241 prop_binY17_bin42
242 prop_binY18_bin37
243 prop_binY16_bin44
244 pdf38
245 prop_binY16_bin57
246 pdf26
247 prop_binY18_bin49
248 prop_binY16_bin43
249 prop_binY17_bin57
250 prop_binY18_bin50
251 prop_binY17_bin38
252 prop_binY16_bin37
253 pdf10
254 prop_binY18_bin56
255 prop_binY16_bin25
256 prop_binY16_bin55
257 mufakesrw2b17
258 prop_binY16_bin32
259 prop_binY16_bin56
260 prop_binY17_bin32
261 mufakesrw1b17
262 prop_binY18_bin27
263 prop_binY18_bin55
264 prop_binY18_bin32
265 prop_binY16_bin49
266 prop_binY18_bin21
267 prop_binY17_bin49
268 prop_binY16_bin50
269 prop_binY18_bin35
270 MCStatBin21
−2
−1
0
1
2
−0.05
0
0.05
×10
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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Poisson
AsymmetricGaussian
CMS Internal
ŷLQ2 = 0.000 +0.024 −0.026
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272 pdf18
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274 prop_binY18_bin20
275 prop_binY16_bin31
276 prop_binY17_bin12
277 prop_binY18_bin25
278 emucostrw3b1718
279 prop_binY17_bin56
280 pdf41
281 prop_binY17_bin37
282 prop_binY16_bin24
283 prop_binY17_bin21
284 prop_binY17_bin25
285 mufakesrw4b18
286 pdf5
287 prop_binY17_bin55
288 prop_binY16_bin22
289 prop_binY18_bin22
290 prop_binY17_bin35
291 pdf53
292 pdf36
293 prop_binY18_bin31
294 emucostrw2b16
295 pdf59
296 prop_binY16_bin35
297 prop_binY16_bin23
298 prop_binY17_bin36
299 prop_binY18_bin24
300 prop_binY17_bin22
×10
−2 −1 0 1 2
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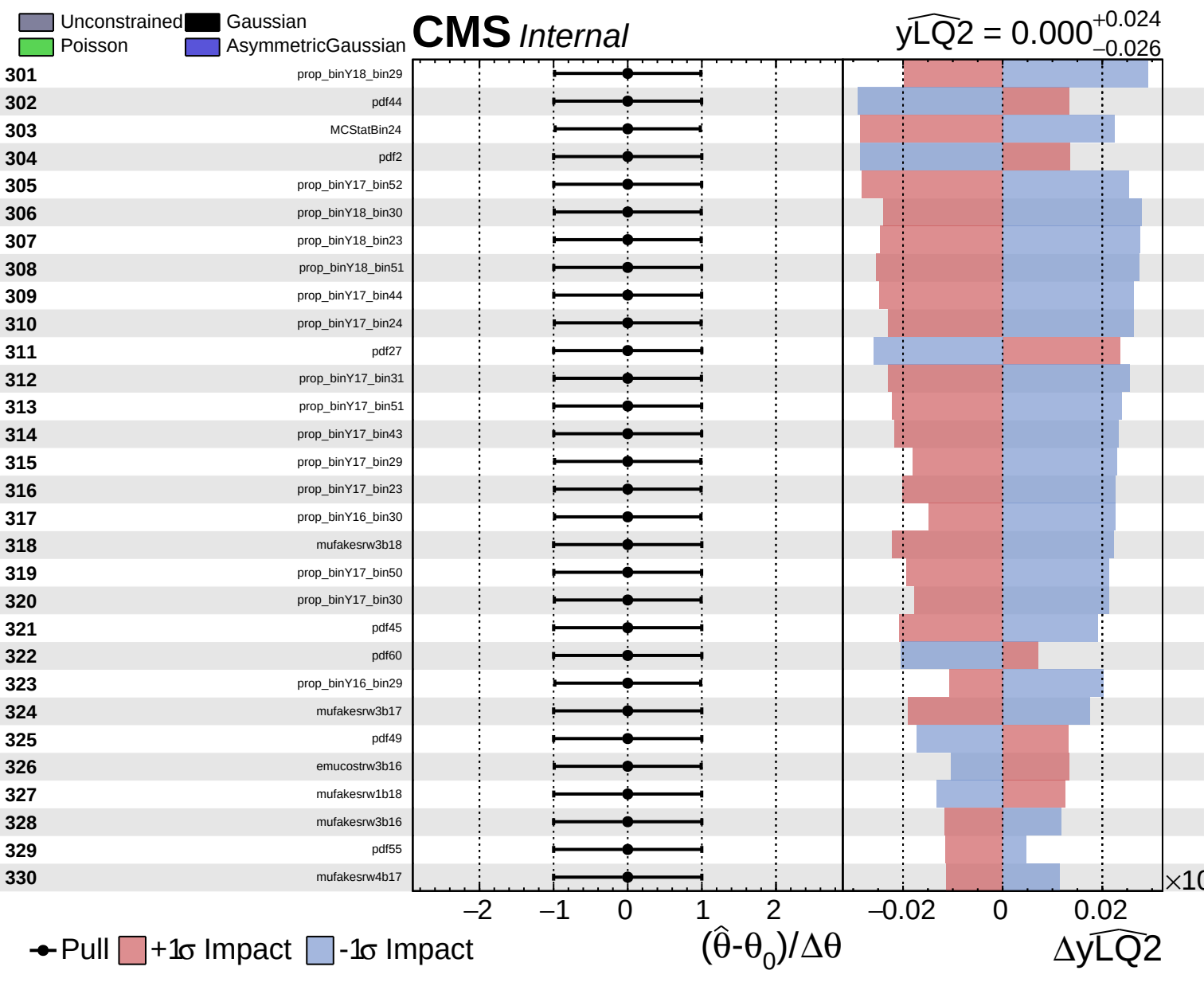
Pull
+1σ Impact
-1σ Impact
(θ̂-θ0)/Δθ
ΔŷLQ2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AsymmetricGaussian
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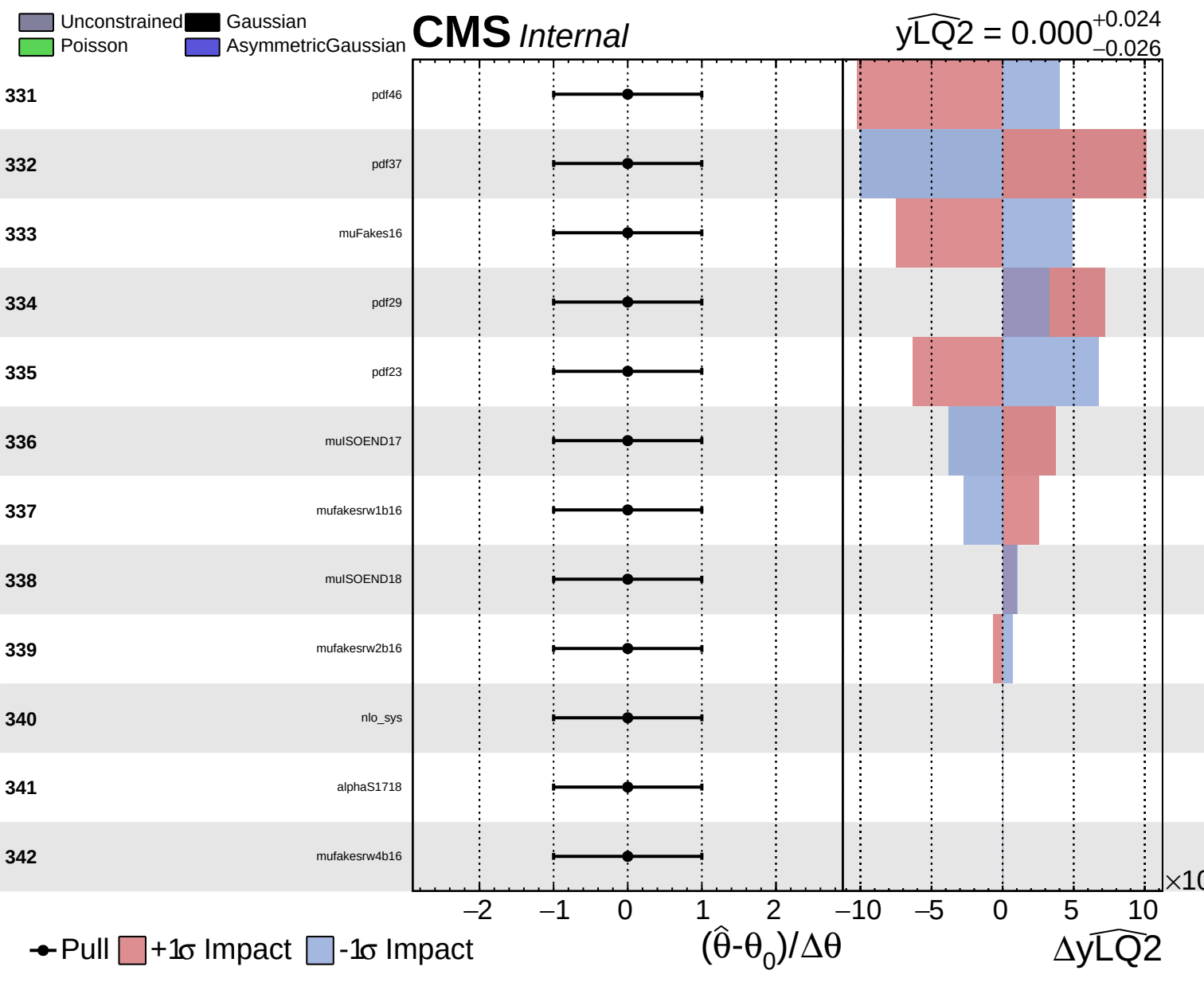
302 pdf44
303 MCStatBin24
304 pdf2
305 prop_binY17_bin52
306 prop_binY18_bin30
307 prop_binY18_bin23
308 prop_binY18_bin51
309 prop_binY17_bin44
310 prop_binY17_bin24
311 pdf27
312 prop_binY17_bin31
313 prop_binY17_bin51
314 prop_binY17_bin43
315 prop_binY17_bin29
316 prop_binY17_bin23
317 prop_binY16_bin30
318 mufakesrw3b18
319 prop_binY17_bin50
320 prop_binY17_bin30
321 pdf45
322 pdf60
323 prop_binY16_bin29
324 mufakesrw3b17
325 pdf49
326 emucostrw3b16
327 mufakesrw1b18
328 mufakesrw3b16
329 pdf55
330 mufakesrw4b17
×10
–2
–1
0
1
2
–0.02
0
0.02
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{yLQ2}$


Unconstrained
Gaussian
Poisson
AsymmetricGaussian
CMS Internal
$\widehat{yLQ2} = 0.000^{+0.024}_{-0.026}$
331 pdf46
332 pdf37
333 muFakes16
334 pdf29
335 pdf23
336 muISOEND17
337 mufakesrw1b16
338 muISOEND18
339 mufakesrw2b16
340 nlo_sys
341 alphaS1718
342 mufakesrw4b16
−2 −1 0 1 2
−10 −5 0 5 10
×10
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\widehat{yLQ2}$