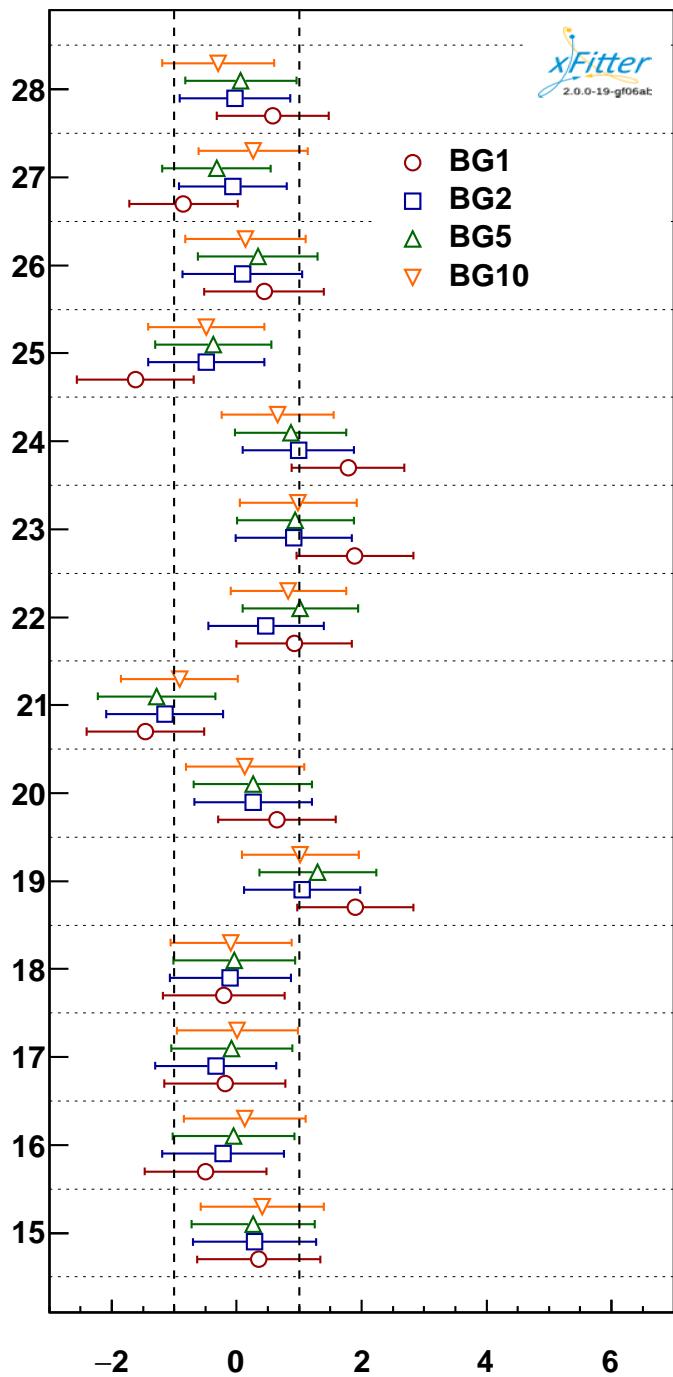
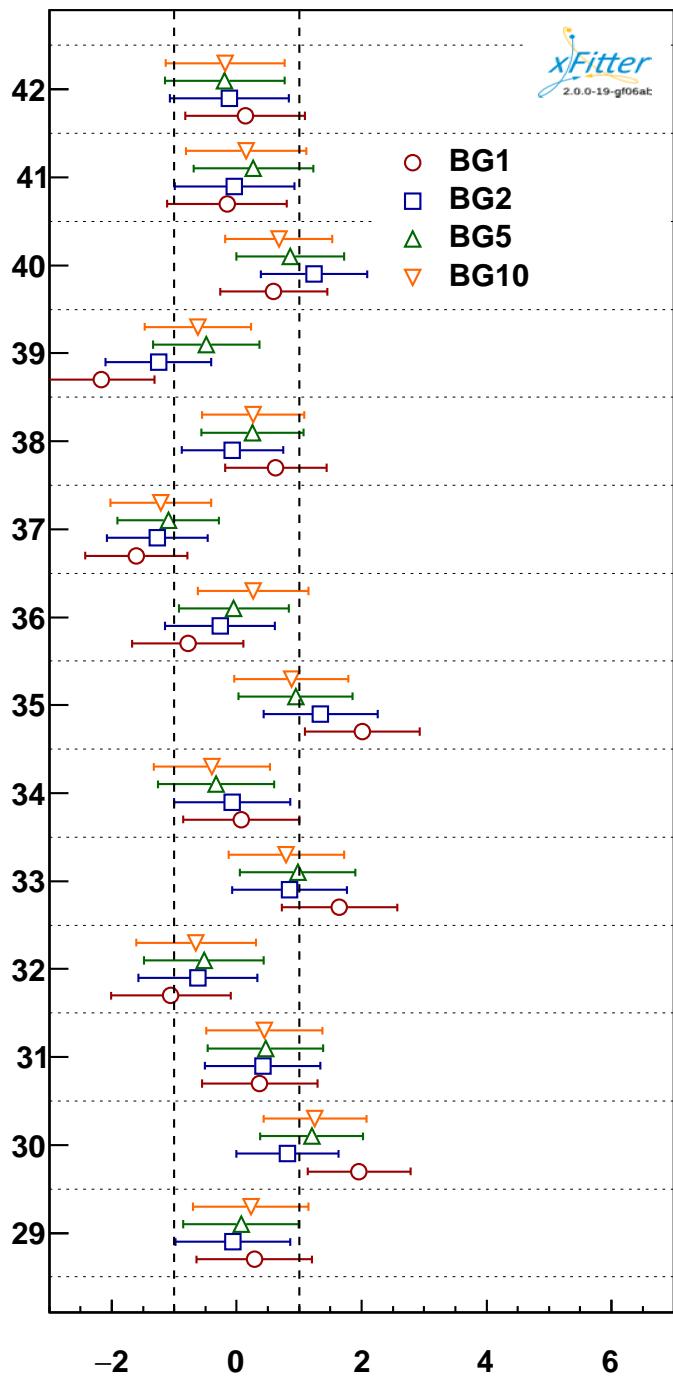


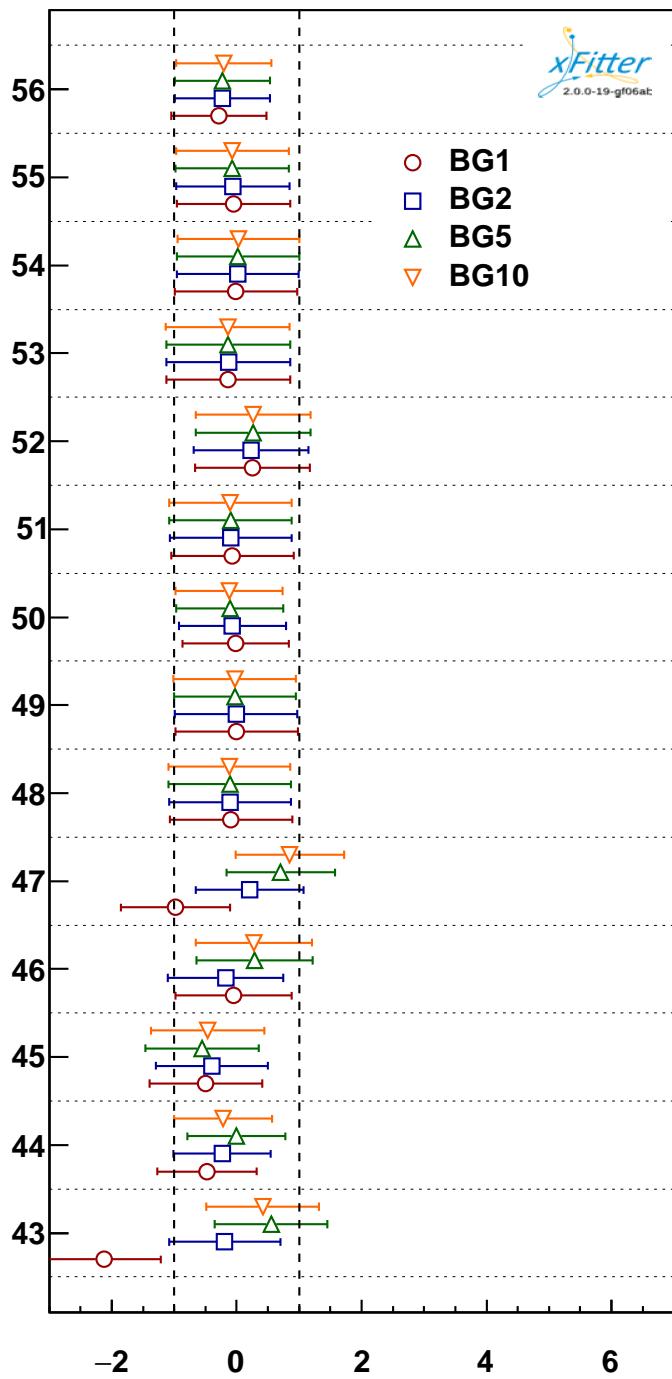
- 14 HERA\_Charm\_Source\_09
- 13 HERA\_Charm\_Source\_08
- 12 HERA\_Charm\_Source\_07
- 11 HERA\_Charm\_Source\_06
- 10 HERA\_Charm\_Source\_05
- 9 HERA\_Charm\_Source\_04
- 8 HERA\_Charm\_Source\_03
- 7 HERA\_Charm\_Source\_02
- 6 HERA\_Charm\_Source\_01
- 5 HERA\_Charm\_Proced\_02
- 4 HERA\_Charm\_Proced\_01
- 3 CST
- 2 BFDp
- 1 BFD0



- 28 HERA\_Charm\_Source\_23
- 27 HERA\_Charm\_Source\_22
- 26 HERA\_Charm\_Source\_21
- 25 HERA\_Charm\_Source\_20
- 24 HERA\_Charm\_Source\_19
- 23 HERA\_Charm\_Source\_18
- 22 HERA\_Charm\_Source\_17
- 21 HERA\_Charm\_Source\_16
- 20 HERA\_Charm\_Source\_15
- 19 HERA\_Charm\_Source\_14
- 18 HERA\_Charm\_Source\_13
- 17 HERA\_Charm\_Source\_12
- 16 HERA\_Charm\_Source\_11
- 15 HERA\_Charm\_Source\_10



- 42 HERA\_Chang\_Source\_37
- 41 HERA\_Chang\_Source\_36
- 40 HERA\_Chang\_Source\_35
- 39 HERA\_Chang\_Source\_34
- 38 HERA\_Chang\_Source\_33
- 37 HERA\_Chang\_Source\_32
- 36 HERA\_Chang\_Source\_31
- 35 HERA\_Chang\_Source\_30
- 34 HERA\_Chang\_Source\_29
- 33 HERA\_Chang\_Source\_28
- 32 HERA\_Chang\_Source\_27
- 31 HERA\_Chang\_Source\_26
- 30 HERA\_Chang\_Source\_25
- 29 HERA\_Chang\_Source\_24



56 mulB

55 hadE

54 gp

53 fragc

52 fragb

51 etac

50 etab

49 dF2

48 cjc

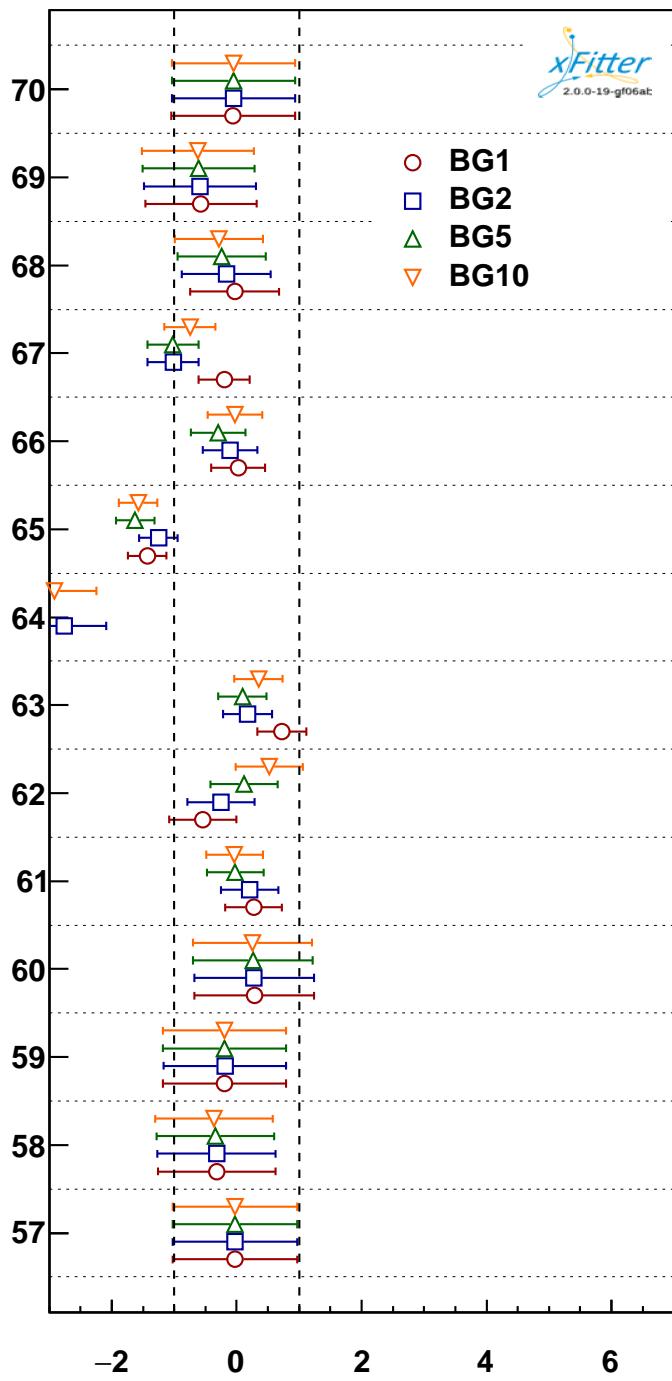
47 HERA\_Chang\_Source\_42

46 HERA\_Chang\_Source\_41

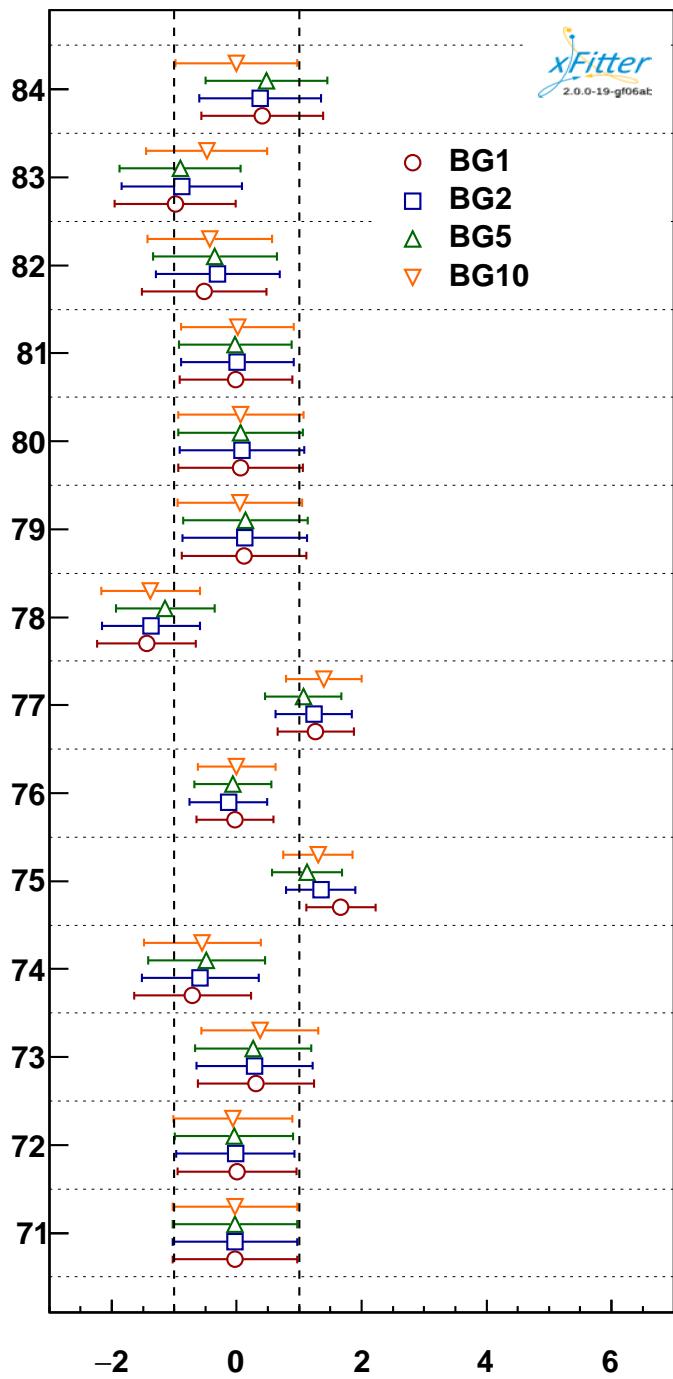
45 HERA\_Chang\_Source\_40

44 HERA\_Chang\_Source\_39

43 HERA\_Chang\_Source\_38



- 70 q2b
- 69 ptc
- 68 ptb
- 67 proc\_tb24
- 66 proc\_tb23
- 65 proc\_tb22
- 64 proc\_tb21
- 63 proc\_nrl
- 62 proc\_had
- 61 proc\_gp
- 60 phiq
- 59 mulDs
- 58 mulDp
- 57 mulD0



84 sysHZComb1012

83 sysHZComb1011

82 sysHZComb1010

81 sysHZComb1009

80 sysHZComb1008

79 sysHZComb1007

78 sysHZComb1006

77 sysHZComb1005

76 sysHZComb1004

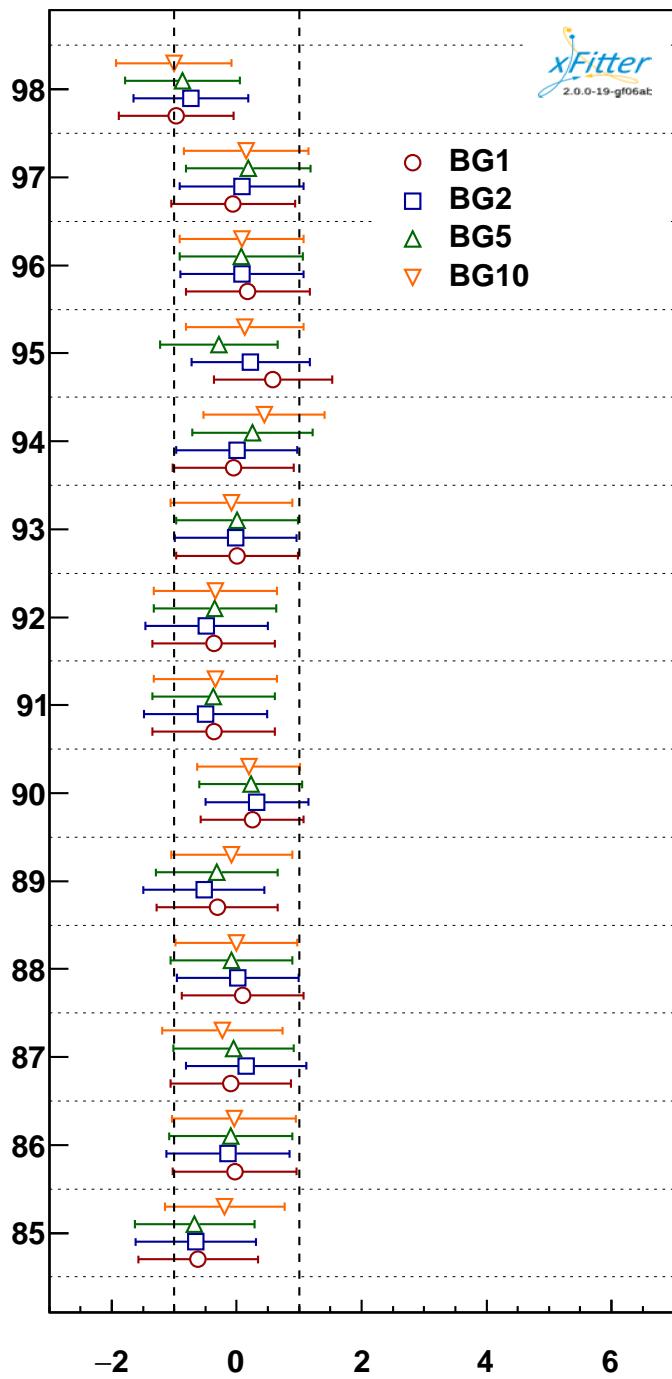
75 sysHZComb1003

74 sysHZComb1002

73 sysHZComb1001

72 res

71 q2c



98 sysHZComb1026

97 sysHZComb1025

96 sysHZComb1024

95 sysHZComb1023

94 sysHZComb1022

93 sysHZComb1021

92 sysHZComb1020

91 sysHZComb1019

90 sysHZComb1018

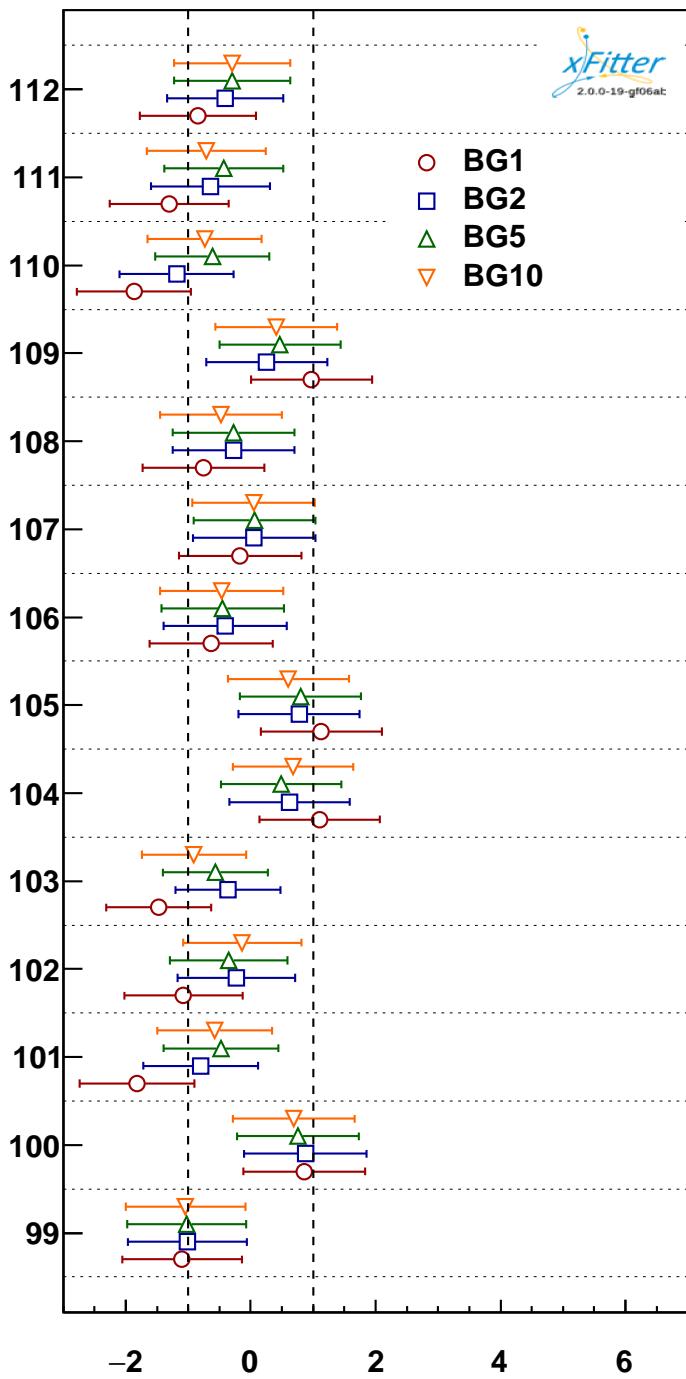
89 sysHZComb1017

88 sysHZComb1016

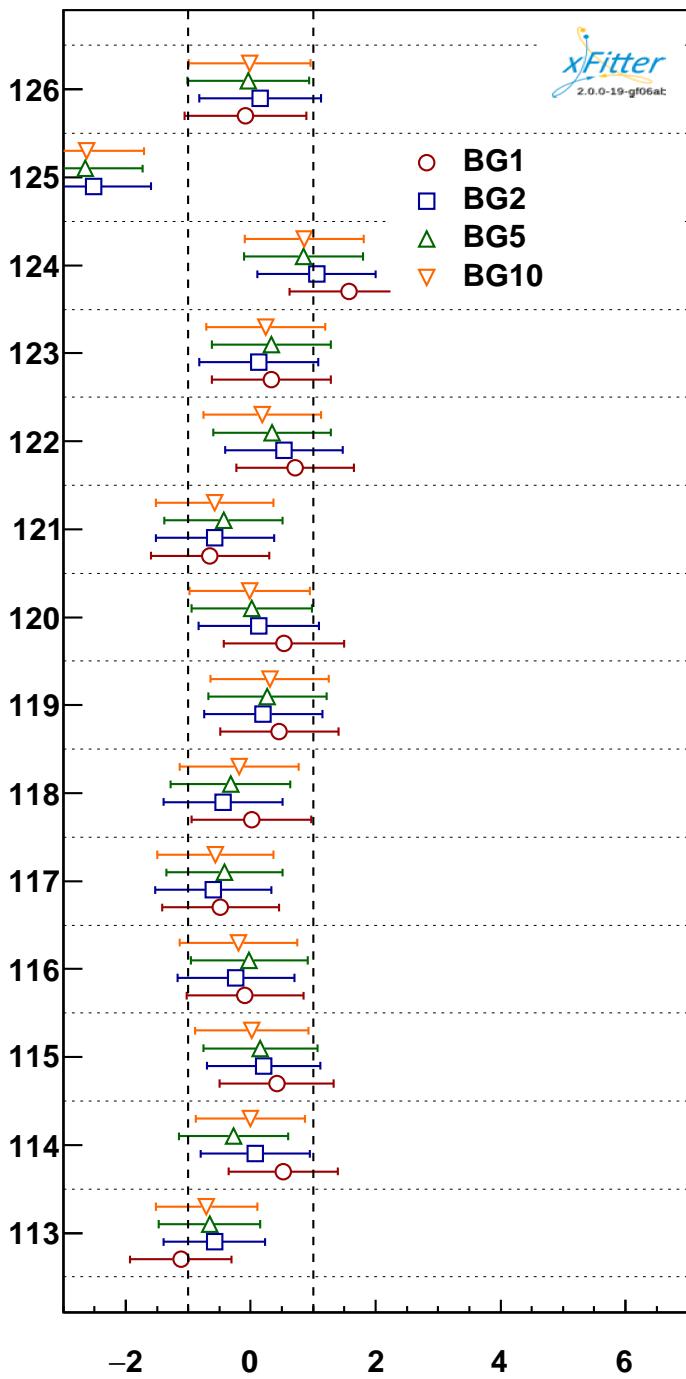
87 sysHZComb1015

86 sysHZComb1014

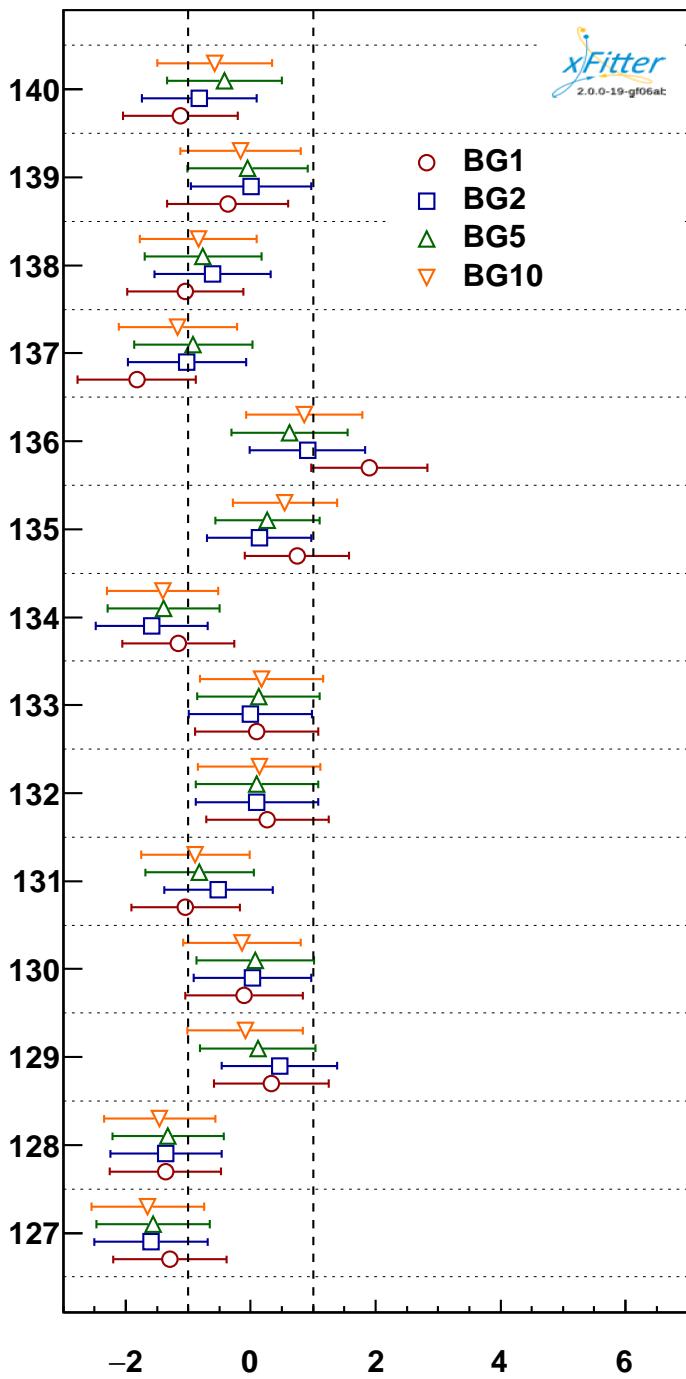
85 sysHZComb1013



112 sysHZComb1040  
111 sysHZComb1039  
110 sysHZComb1038  
109 sysHZComb1037  
108 sysHZComb1036  
107 sysHZComb1035  
106 sysHZComb1034  
105 sysHZComb1033  
104 sysHZComb1032  
103 sysHZComb1031  
102 sysHZComb1030  
101 sysHZComb1029  
100 sysHZComb1028  
99 sysHZComb1027



- 126 sysHZComb1054
- 125 sysHZComb1053
- 124 sysHZComb1052
- 123 sysHZComb1051
- 122 sysHZComb1050
- 121 sysHZComb1049
- 120 sysHZComb1048
- 119 sysHZComb1047
- 118 sysHZComb1046
- 117 sysHZComb1045
- 116 sysHZComb1044
- 115 sysHZComb1043
- 114 sysHZComb1042
- 113 sysHZComb1041



140 sysHZComb1068

139 sysHZComb1067

138 sysHZComb1066

137 sysHZComb1065

136 sysHZComb1064

135 sysHZComb1063

134 sysHZComb1062

133 sysHZComb1061

132 sysHZComb1060

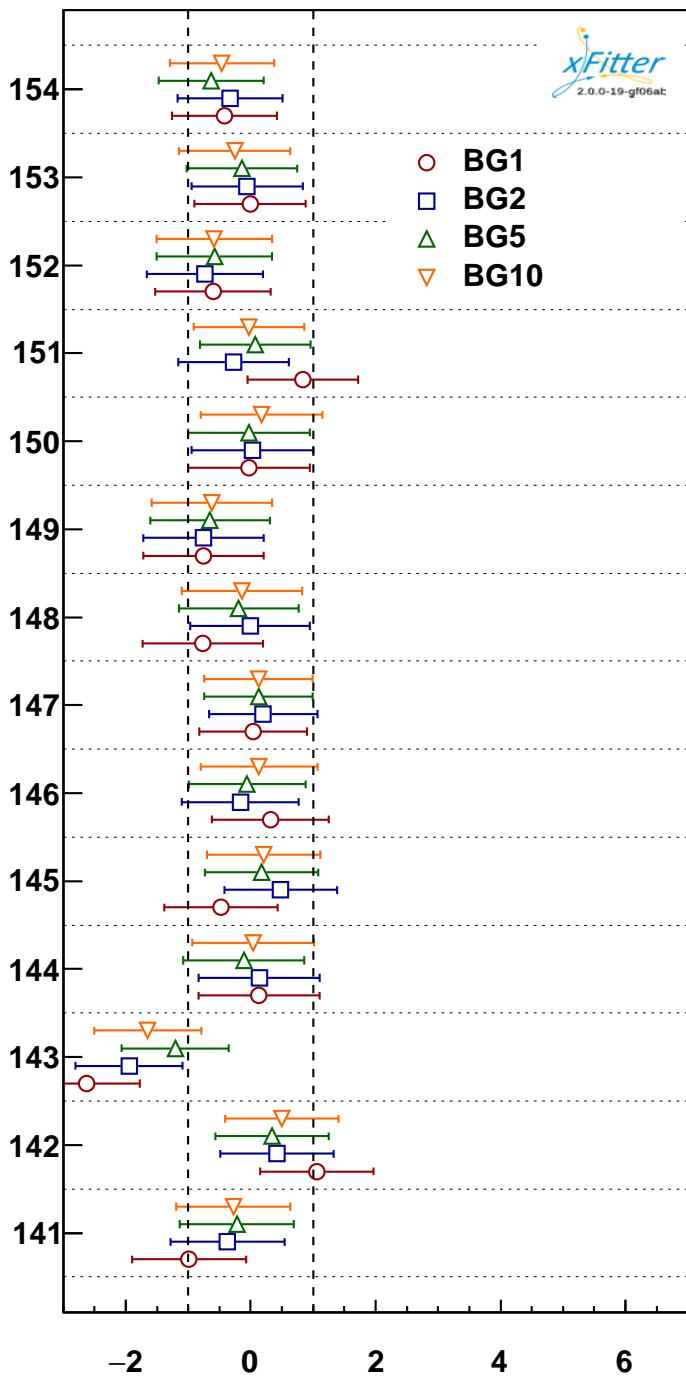
131 sysHZComb1059

130 sysHZComb1058

129 sysHZComb1057

128 sysHZComb1056

127 sysHZComb1055



154 sysHZComb1082

153 sysHZComb1081

152 sysHZComb1080

151 sysHZComb1079

150 sysHZComb1078

149 sysHZComb1077

148 sysHZComb1076

147 sysHZComb1075

146 sysHZComb1074

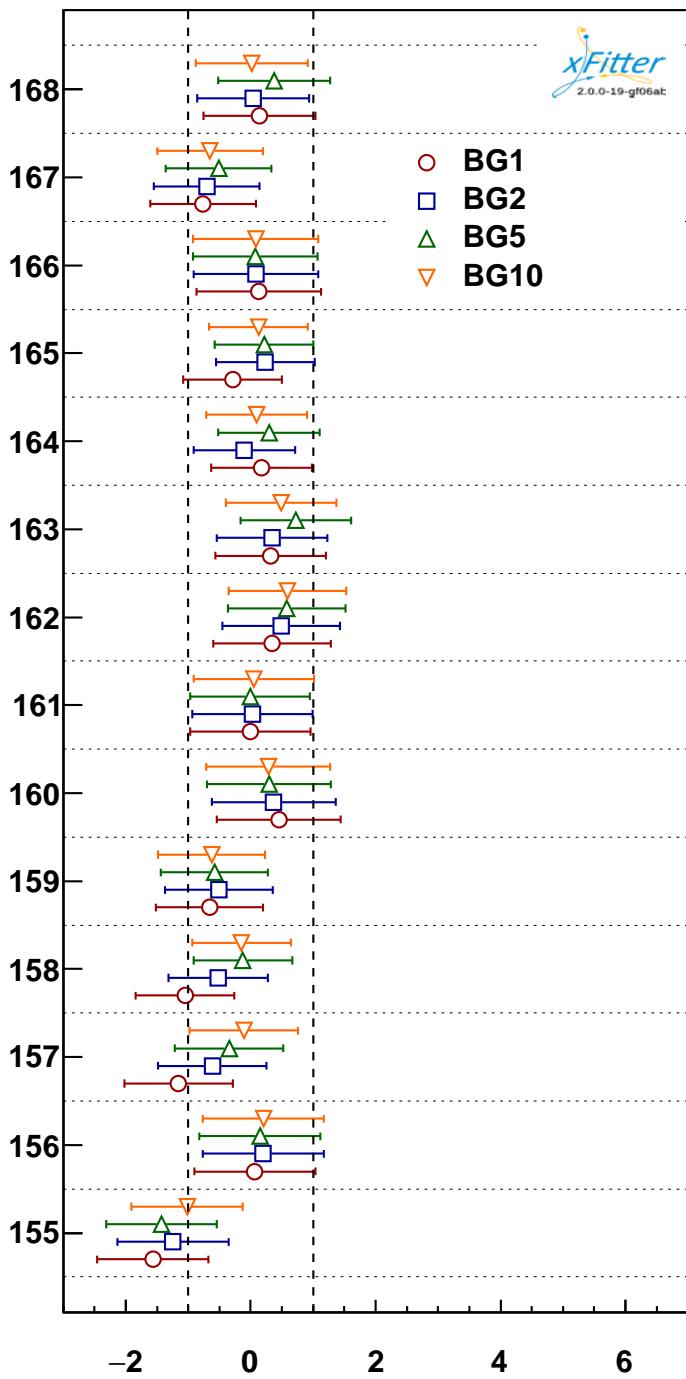
145 sysHZComb1073

144 sysHZComb1072

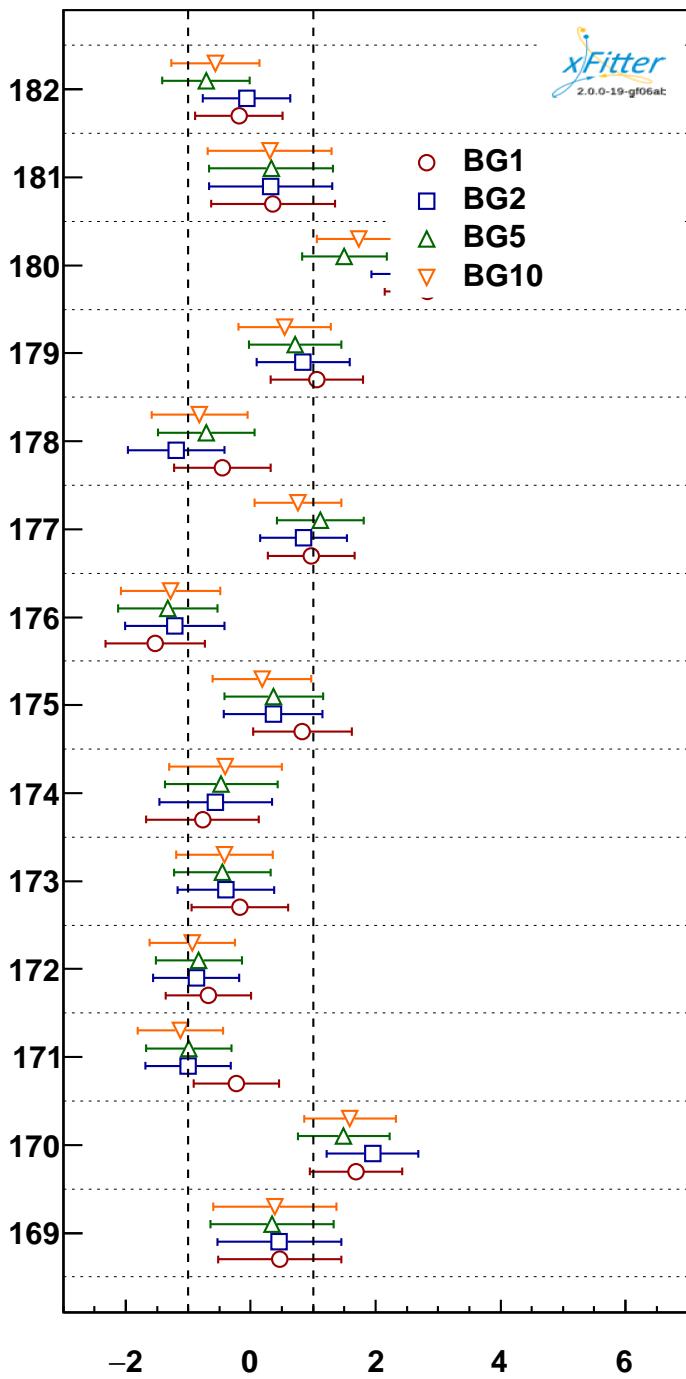
143 sysHZComb1071

142 sysHZComb1070

141 sysHZComb1069



168 sysHZComb1096  
167 sysHZComb1095  
166 sysHZComb1094  
165 sysHZComb1093  
164 sysHZComb1092  
163 sysHZComb1091  
162 sysHZComb1090  
161 sysHZComb1089  
160 sysHZComb1088  
159 sysHZComb1087  
158 sysHZComb1086  
157 sysHZComb1085  
156 sysHZComb1084  
155 sysHZComb1083



182 sysHZComb1110

181 sysHZComb1109

180 sysHZComb1108

179 sysHZComb1107

178 sysHZComb1106

177 sysHZComb1105

176 sysHZComb1104

175 sysHZComb1103

174 sysHZComb1102

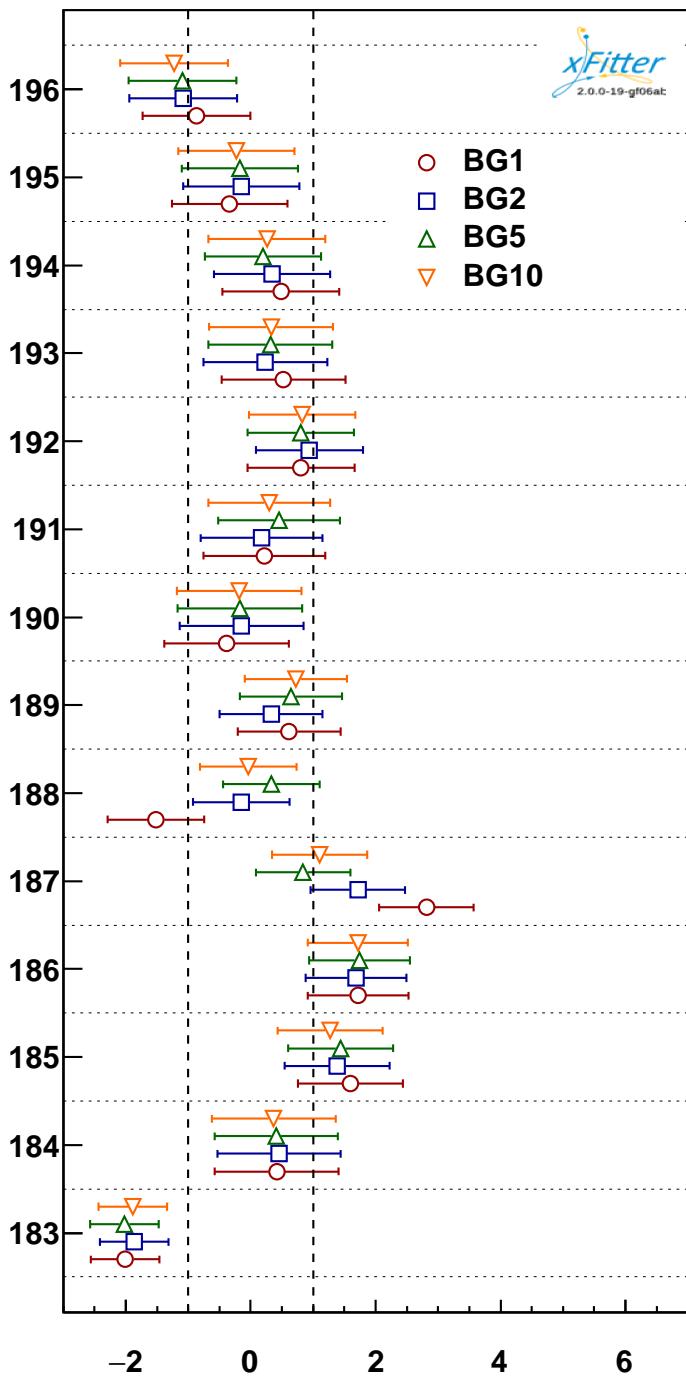
173 sysHZComb1101

172 sysHZComb1100

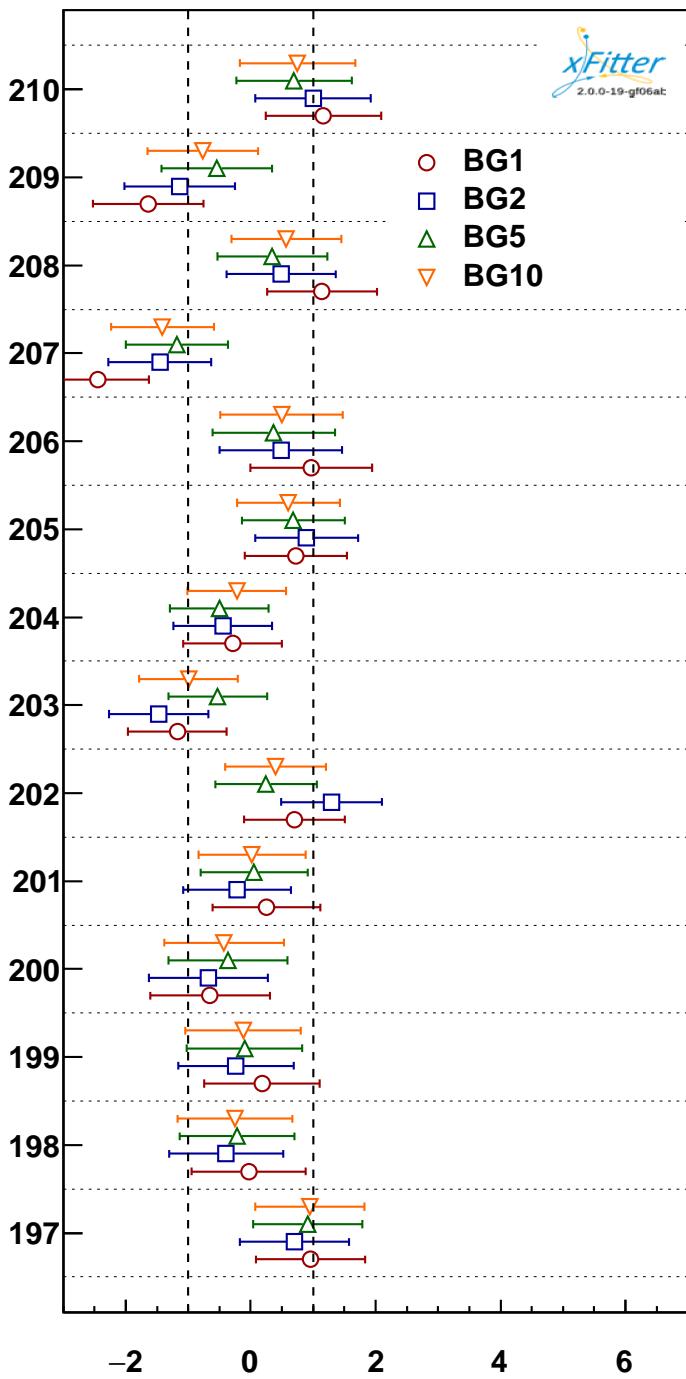
171 sysHZComb1099

170 sysHZComb1098

169 sysHZComb1097



- 196 sysHZComb1124
- 195 sysHZComb1123
- 194 sysHZComb1122
- 193 sysHZComb1121
- 192 sysHZComb1120
- 191 sysHZComb1119
- 190 sysHZComb1118
- 189 sysHZComb1117
- 188 sysHZComb1116
- 187 sysHZComb1115
- 186 sysHZComb1114
- 185 sysHZComb1113
- 184 sysHZComb1112
- 183 sysHZComb1111



210 sysHZComb1138

209 sysHZComb1137

208 sysHZComb1136

207 sysHZComb1135

206 sysHZComb1134

205 sysHZComb1133

204 sysHZComb1132

203 sysHZComb1131

202 sysHZComb1130

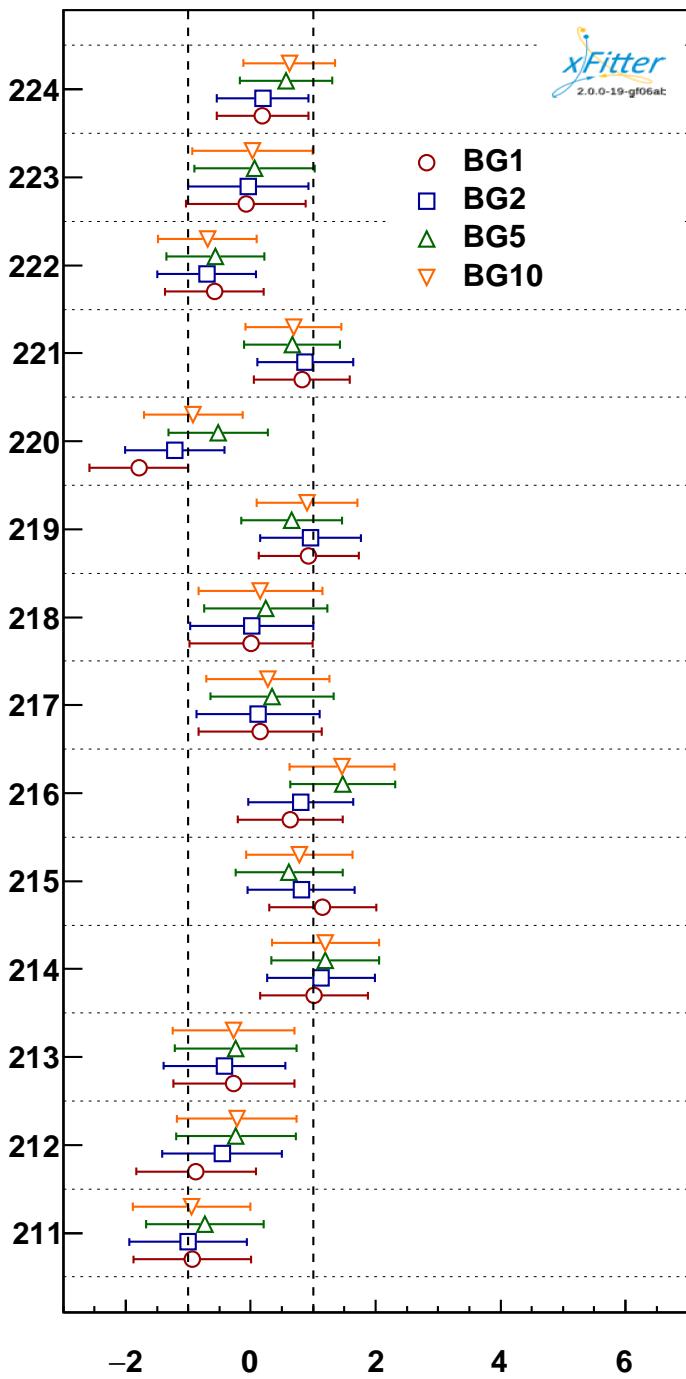
201 sysHZComb1129

200 sysHZComb1128

199 sysHZComb1127

198 sysHZComb1126

197 sysHZComb1125



224 sysHZComb1152

223 sysHZComb1151

222 sysHZComb1150

221 sysHZComb1149

220 sysHZComb1148

219 sysHZComb1147

218 sysHZComb1146

217 sysHZComb1145

216 sysHZComb1144

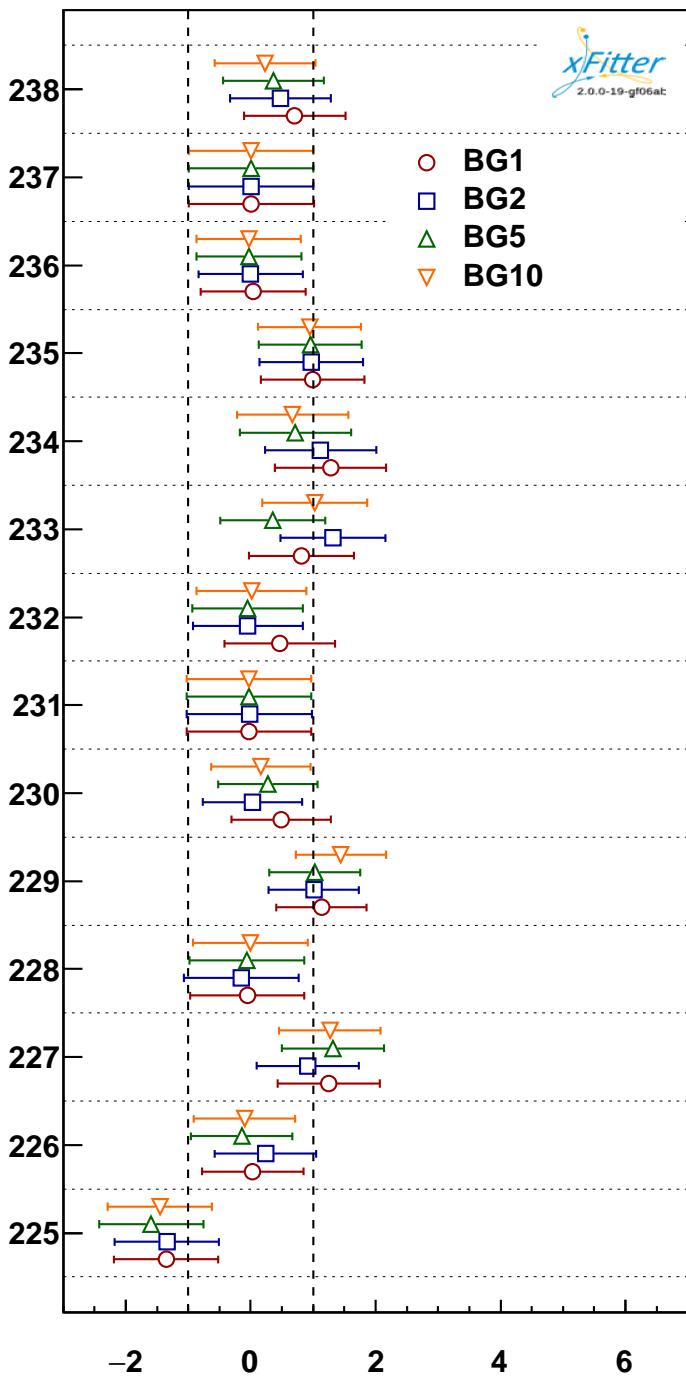
215 sysHZComb1143

214 sysHZComb1142

213 sysHZComb1141

212 sysHZComb1140

211 sysHZComb1139



238 zbv\_MCmodelenjetb

237 xc

236 xb

235 uds

234 sysHZComb1162

233 sysHZComb1161

232 sysHZComb1160

231 sysHZComb1159

230 sysHZComb1158

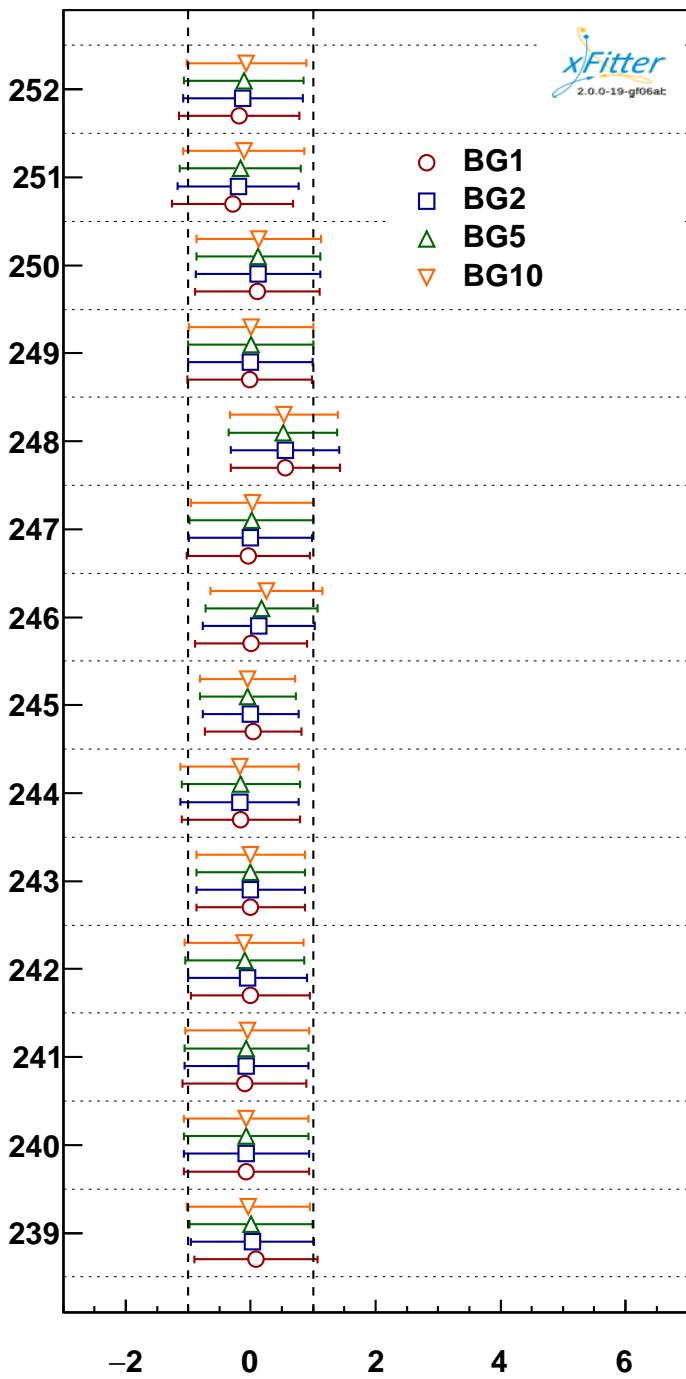
229 sysHZComb1157

228 sysHZComb1156

227 sysHZComb1155

226 sysHZComb1154

225 sysHZComb1153



252 `zbv_trackingef`

251 `zbv_renfacscale`

250 `zbv_mbeauty`

249 `zbv_lumi`

248 `zbv_lfas`

247 `zbv_jetenscale`

246 `zbv_fragfrac`

245 `zbv_emscale`

244 `zbv_core`

243 `zbv_beauty`

242 `zbv_asvar`

241 `zbv_MCmodetab`

240 `zbv_MCmodelq2b`

239 `zbv_MCmodelenjetc`

Dataset	BG1	BG2	BG5	BG10
Beauty cross section ZEUS Vertex	14 / 17	13 / 17	13 / 17	13 / 17
Charm cross section H1-ZEUS combined	234 / 47	66 / 47	51 / 47	50 / 47
HERA1+2 CCep	49 / 39	48 / 39	44 / 39	43 / 39
HERA1+2 CCem	53 / 42	54 / 42	54 / 42	54 / 42
HERA1+2 NCem	224 / 159	220 / 159	225 / 159	225 / 159
HERA1+2 NCep 820	73 / 70	65 / 70	67 / 70	63 / 70
HERA1+2 NCep 920	600 / 377	488 / 377	438 / 377	488 / 377
HERA1+2 NCep 460	214 / 204	243 / 204	221 / 204	219 / 204
HERA1+2 NCep 575	227 / 254	222 / 254	221 / 254	218 / 254
H1 F2 Beauty Vertex	4.2 / 12	3.8 / 12	3.6 / 12	3.5 / 12
Correlated $\chi^2$	221	128	109	116
Log penalty $\chi^2$	+15	+8.9	+7.4	+14
Total $\chi^2$ / dof	1928 / 1207	1559 / 1207	1455 / 1207	1504 / 1207
$\chi^2$ p-value	0.00	0.00	0.00	0.00

Parameter	BG1	BG2	BG5	BG10
'Bg'	$-0.17 \pm 0.15$	$0.174 \pm 0.066$	$-0.097 \pm 0.025$	$-0.09 \pm 0.19$
'Cg'	$3.92 \pm 0.54$	$7.2 \pm 1.2$	$5.37 \pm 0.30$	$6.84 \pm 0.79$
'Aprig'	$0.64 \pm 0.26$	$5.1 \pm 4.5$	$0.454 \pm 0.070$	$0.93 \pm 0.68$
'Bprig'	$-0.286 \pm 0.058$	$0.35 \pm 0.18$	$-0.293 \pm 0.018$	$-0.229 \pm 0.060$
'Cprig'	<b>25.00</b>	<b>25.00</b>	<b>25.00</b>	<b>25.00</b>
'Buv'	$0.808 \pm 0.038$	$0.858 \pm 0.037$	$0.777 \pm 0.017$	$0.765 \pm 0.044$
'Cuv'	$4.716 \pm 0.085$	$4.63 \pm 0.14$	$4.788 \pm 0.060$	$4.801 \pm 0.085$
'Euv'	$10.6 \pm 1.8$	$8.6 \pm 1.3$	$12.65 \pm 0.98$	$13.5 \pm 2.4$
'Bdv'	$1.105 \pm 0.085$	$1.183 \pm 0.100$	$0.977 \pm 0.062$	$0.94 \pm 0.11$
'Cdv'	$5.04 \pm 0.36$	$5.13 \pm 0.46$	$4.44 \pm 0.29$	$4.28 \pm 0.43$
'CUbar'	$7.1 \pm 1.7$	$3.1 \pm 1.0$	$7.69 \pm 0.55$	$8.11 \pm 0.93$
'DUbar'	$2.7 \pm 2.7$	$-2.20 \pm 0.42$	$5.7 \pm 1.2$	$8.7 \pm 2.4$
'ADbar'	$0.251 \pm 0.011$	$0.291 \pm 0.014$	$0.2604 \pm 0.0098$	$0.241 \pm 0.014$
'BDbar'	$-0.1445 \pm 0.0051$	$-0.1052 \pm 0.0059$	$-0.1160 \pm 0.0048$	$-0.1254 \pm 0.0074$
'CDbar'	$13.9 \pm 3.2$	$13.1 \pm 3.1$	$9.1 \pm 1.4$	$7.6 \pm 1.7$
'alphas'	<b>0.1180</b>	<b>0.1180</b>	<b>0.1180</b>	<b>0.1180</b>
'fs'	<b>0.4000</b>	<b>0.4000</b>	<b>0.4000</b>	<b>0.4000</b>
Fit status	converged	converged	<b>not-a-fit</b>	converged
Uncertainties	migrad-hesse	migrad-hesse	not-a-fit	migrad-hesse