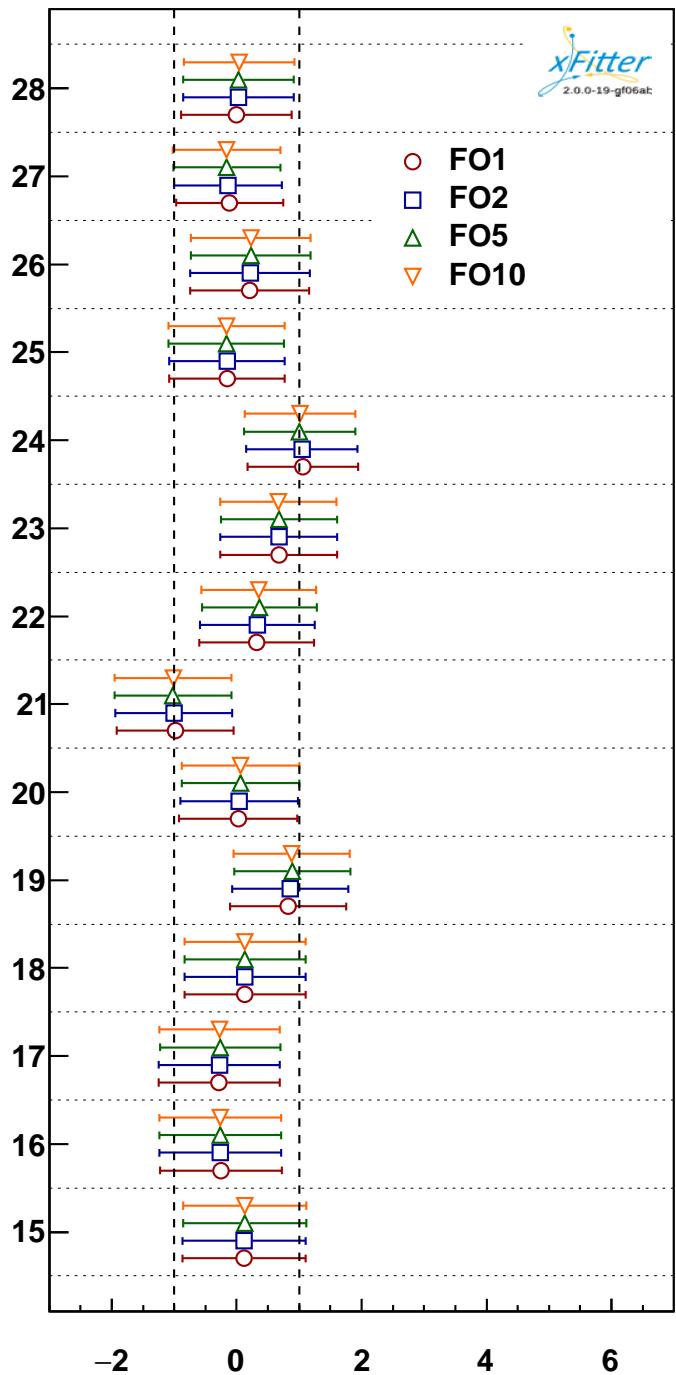
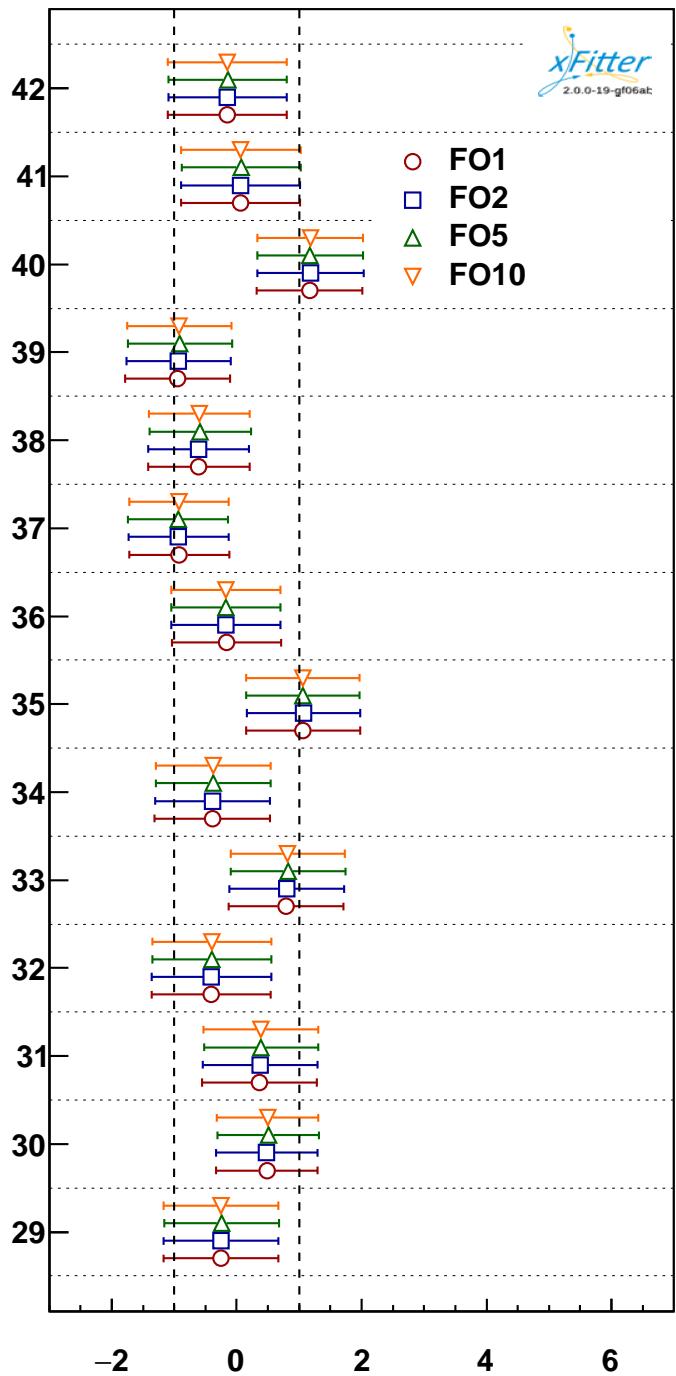


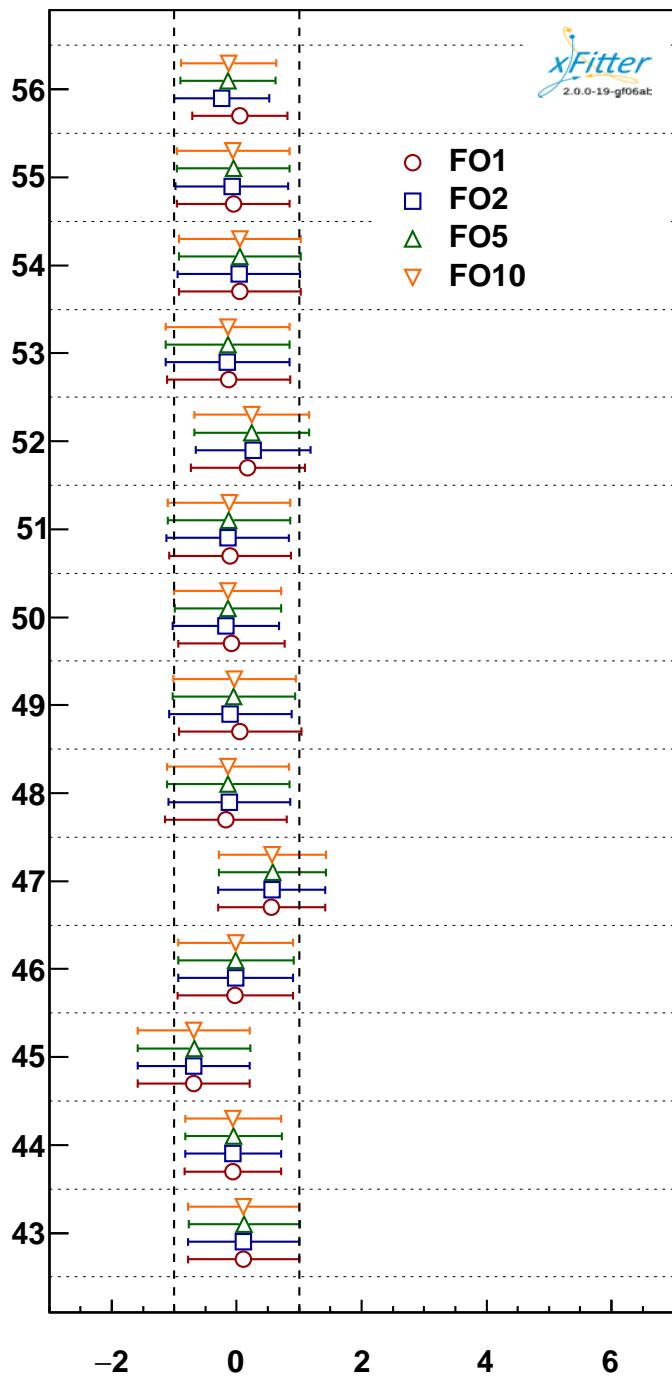
- 14 HERA_Charm_Source_09
- 13 HERA_Charm_Source_08
- 12 HERA_Charm_Source_07
- 11 HERA_Charm_Source_06
- 10 HERA_Charm_Source_05
- 9 HERA_Charm_Source_04
- 8 HERA_Charm_Source_03
- 7 HERA_Charm_Source_02
- 6 HERA_Charm_Source_01
- 5 HERA_Charm_Proced_02
- 4 HERA_Charm_Proced_01
- 3 CST
- 2 BFDp
- 1 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

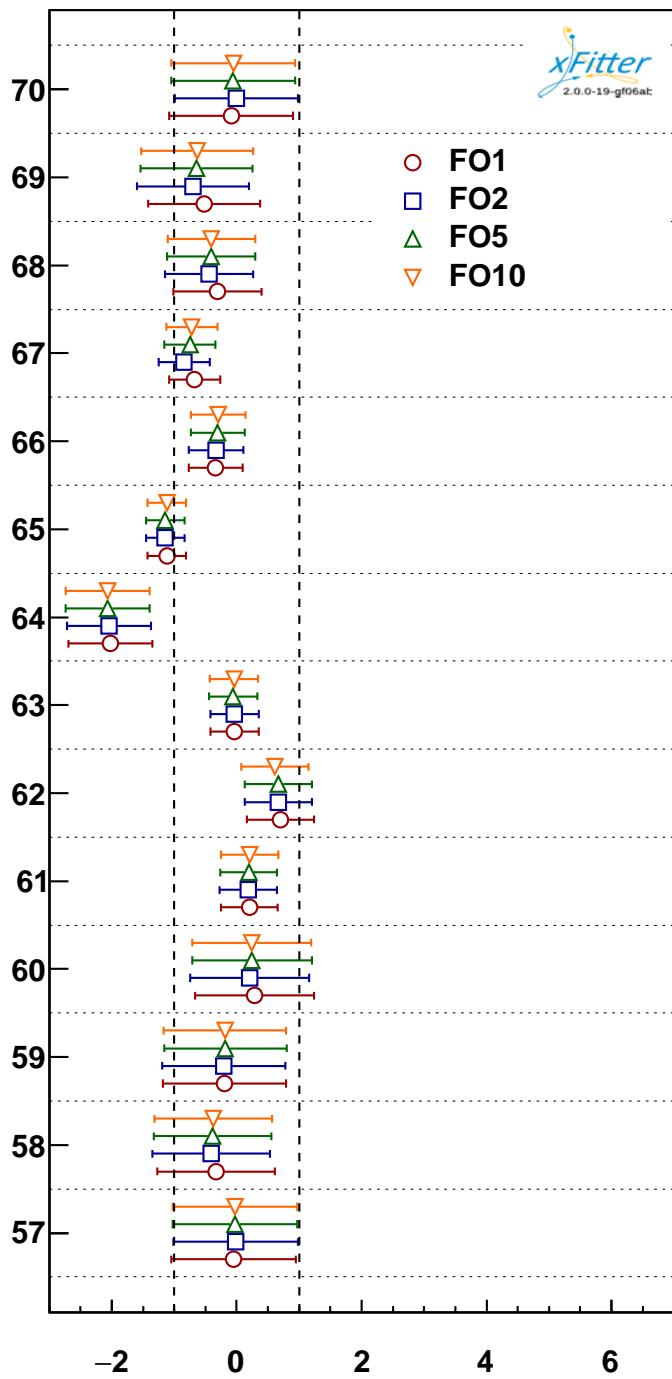
47 HERA_Chang_Source_42

46 HERA_Chang_Source_41

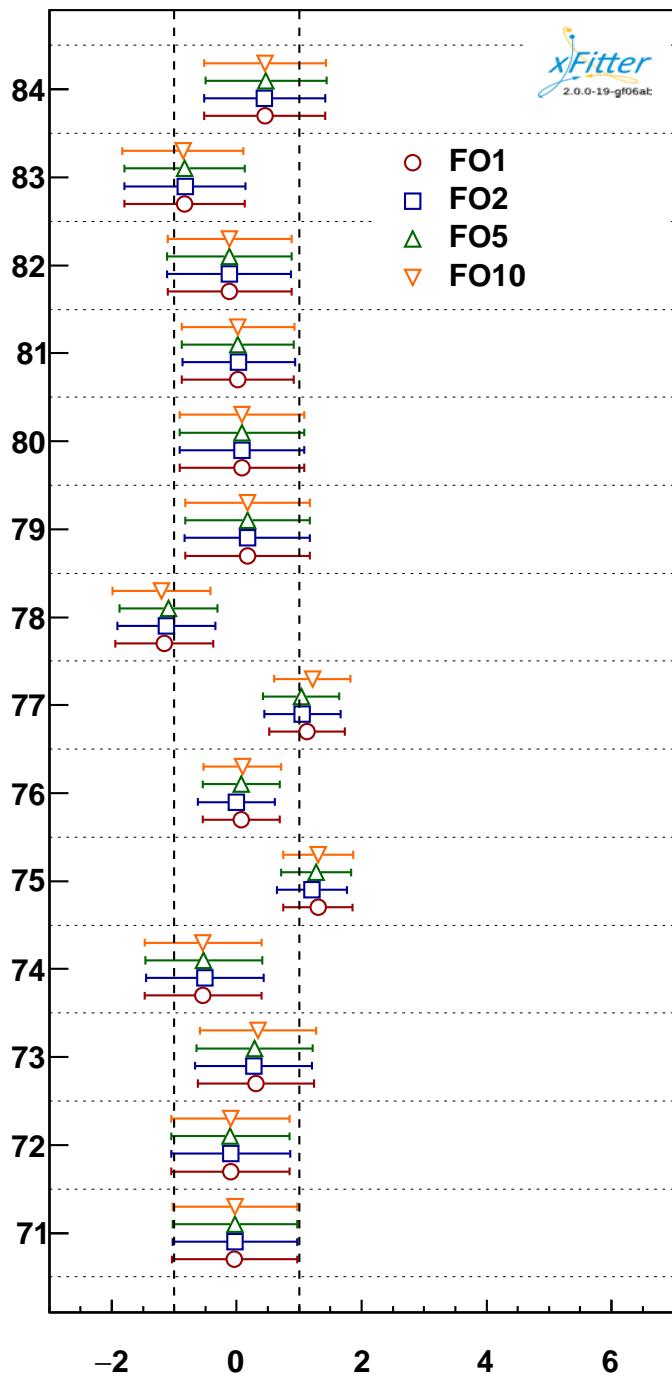
45 HERA_Chang_Source_40

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

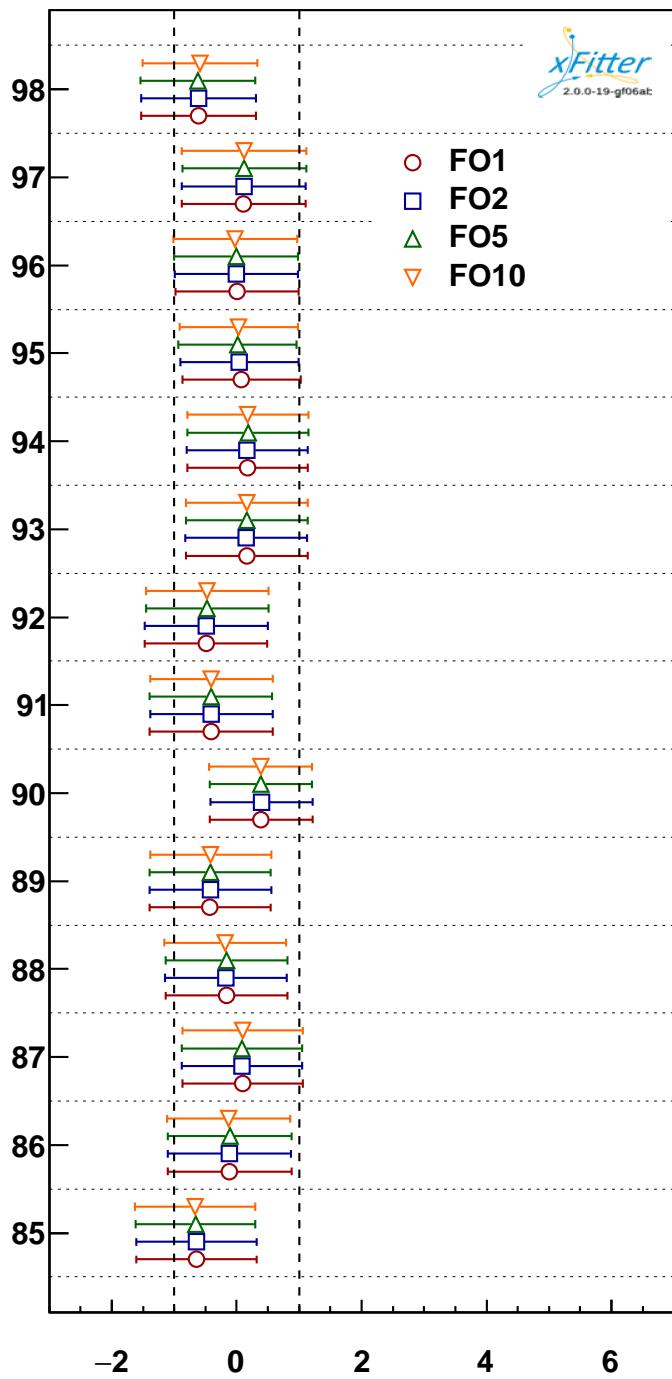
75 sysHZComb1003

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

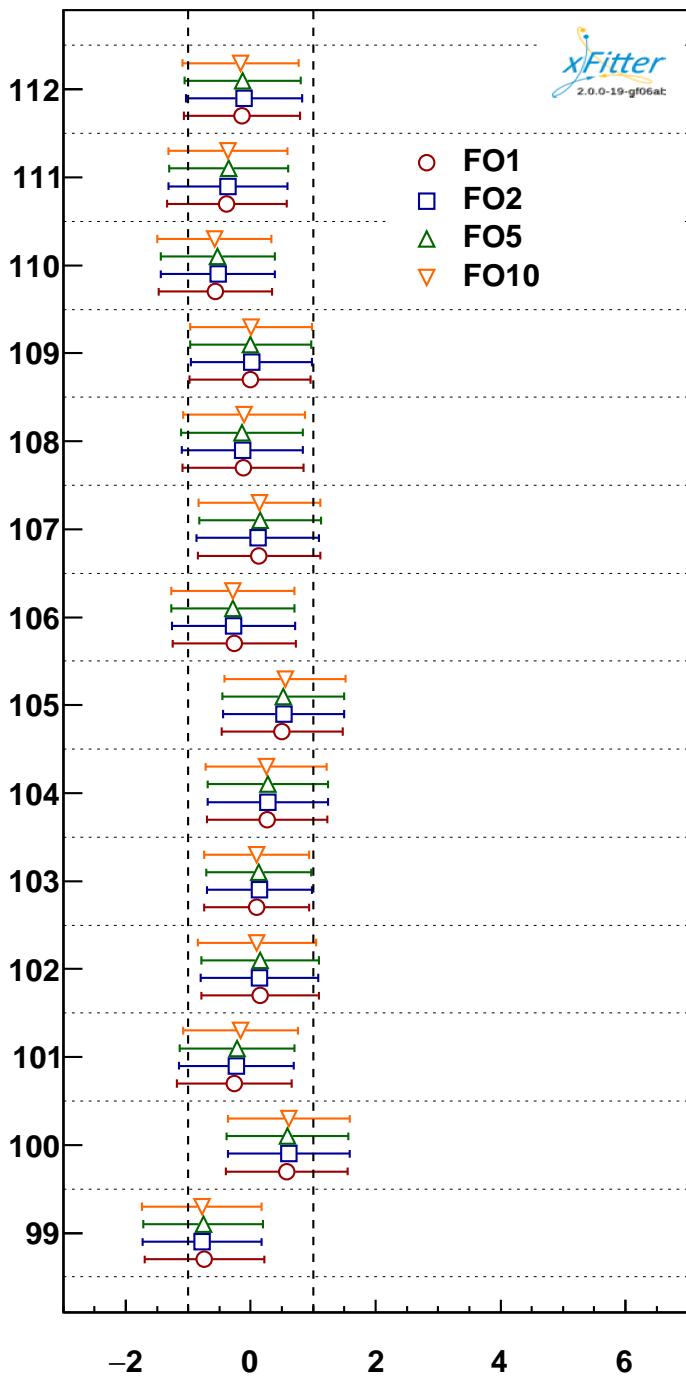
89 sysHZComb1017

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

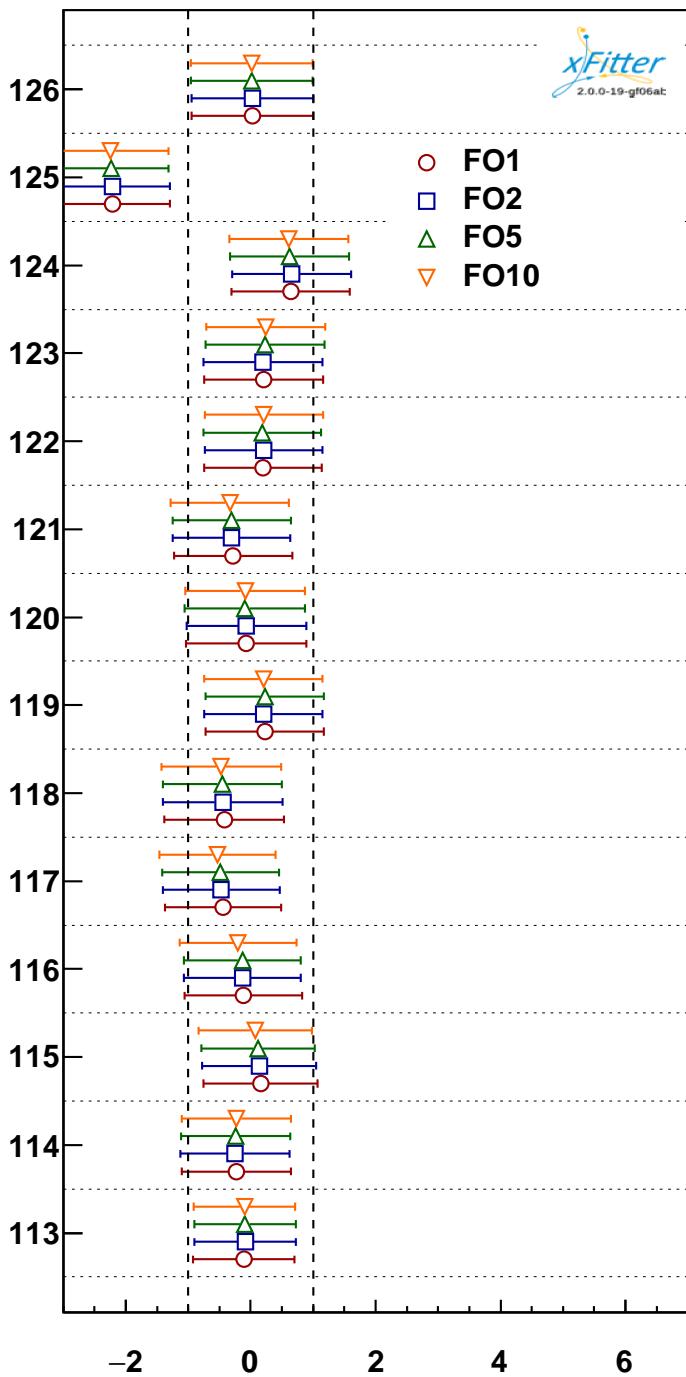
103 sysHZComb1031

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

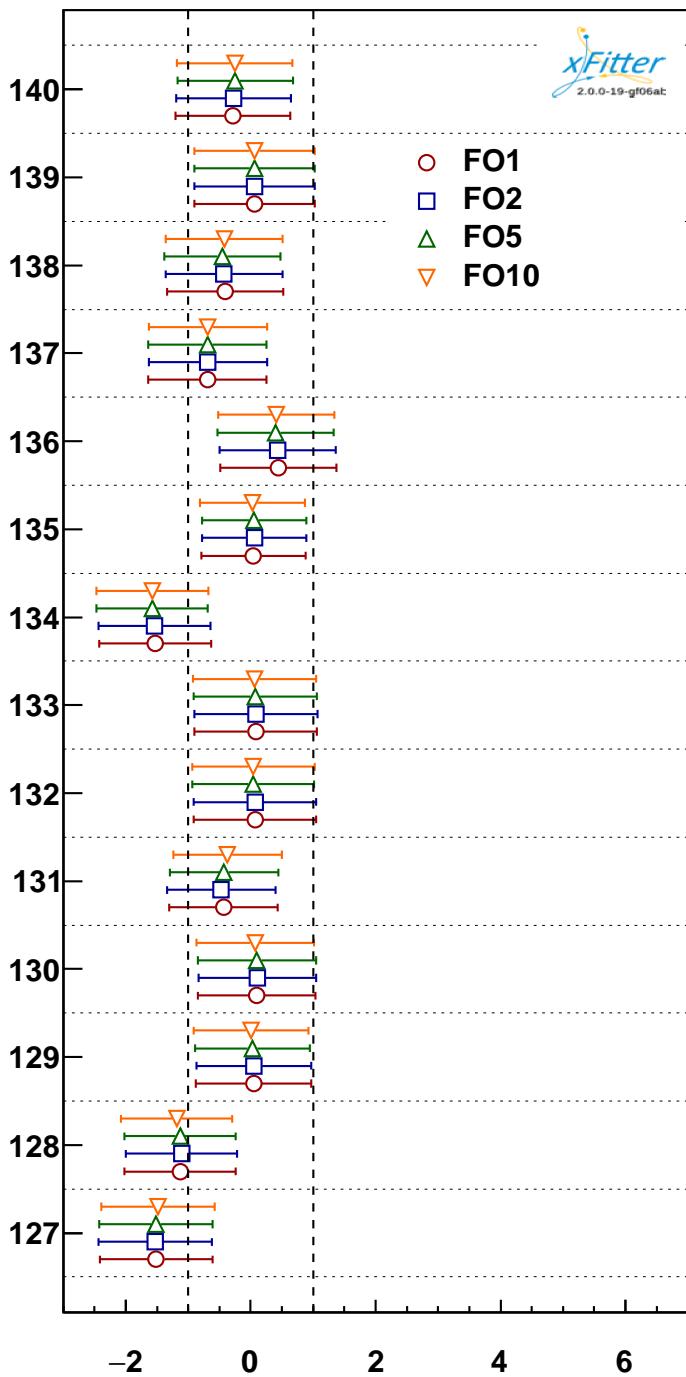
117 sysHZComb1045

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

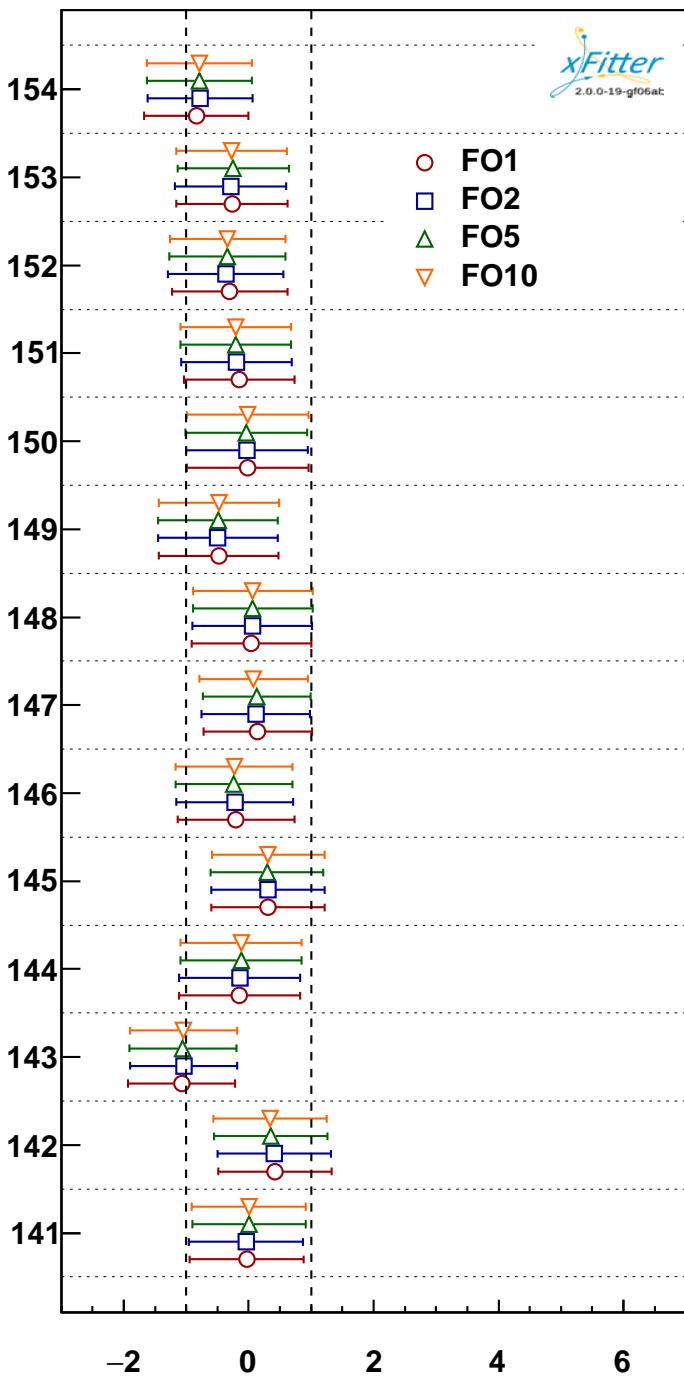
131 sysHZComb1059

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

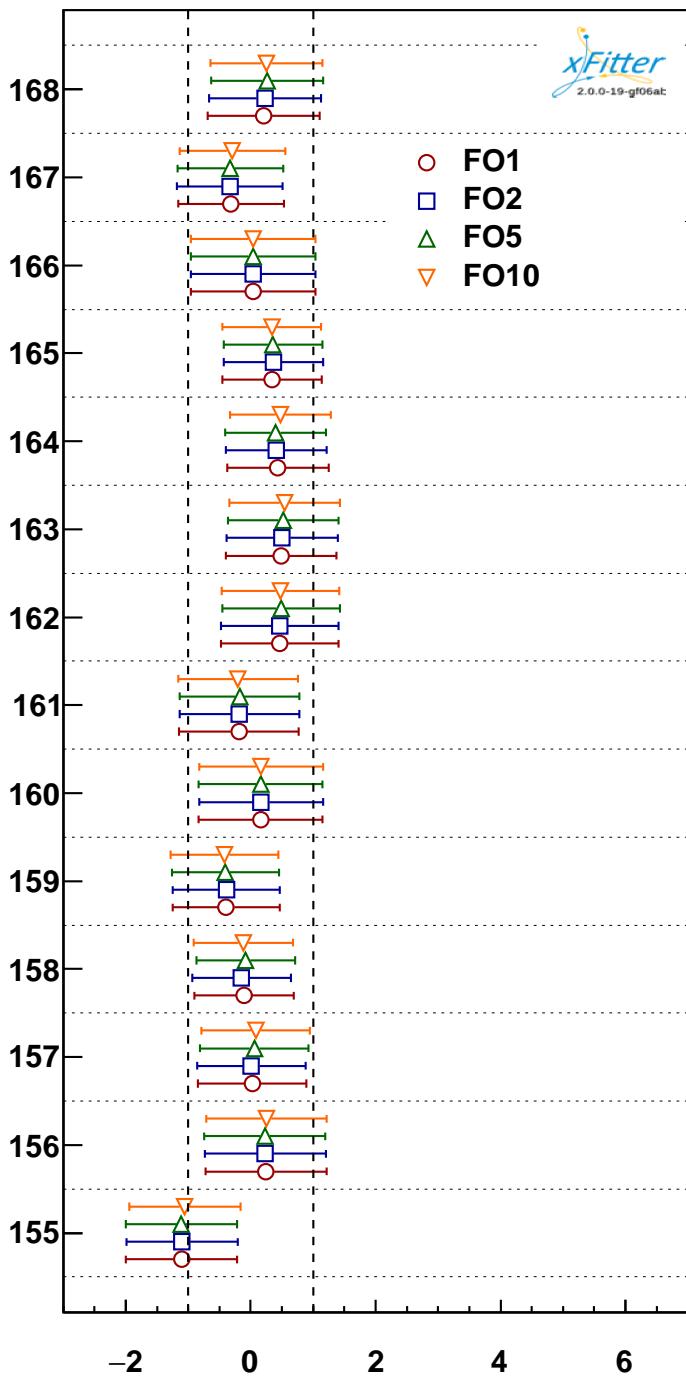
145 sysHZComb1073

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

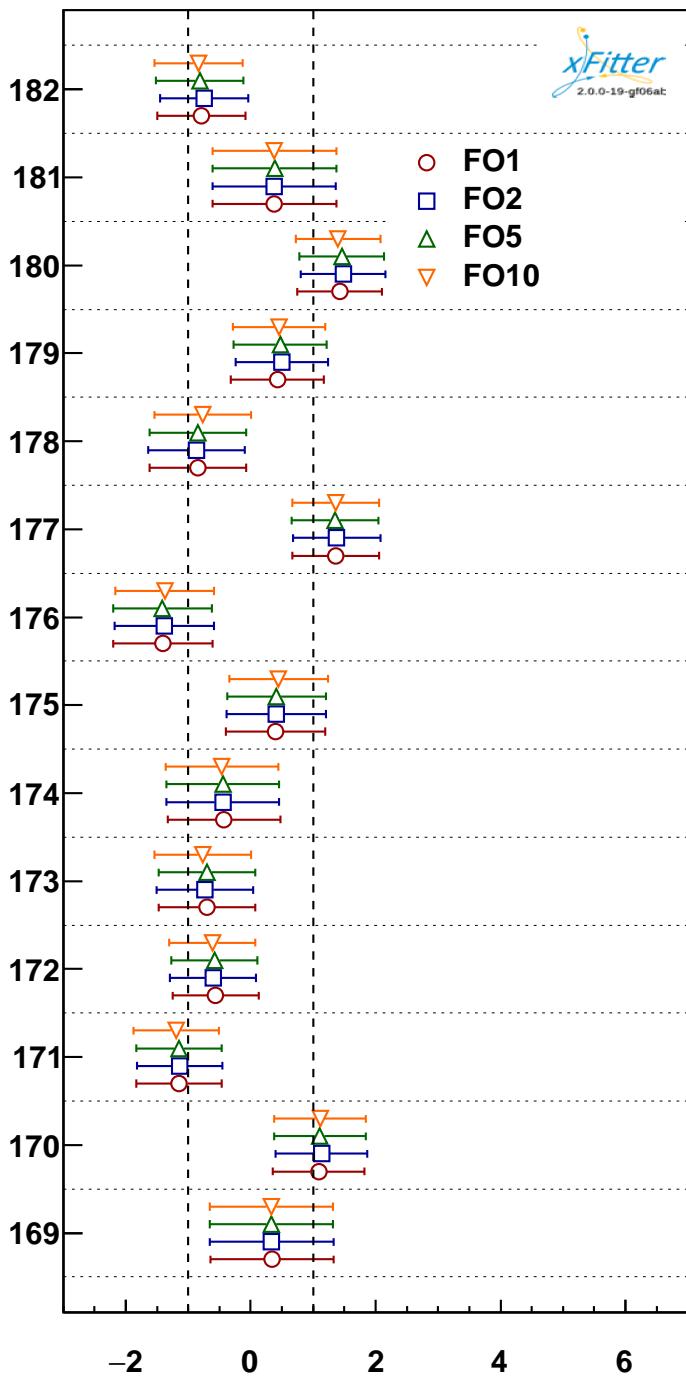
159 sysHZComb1087

158 sysHZComb1086

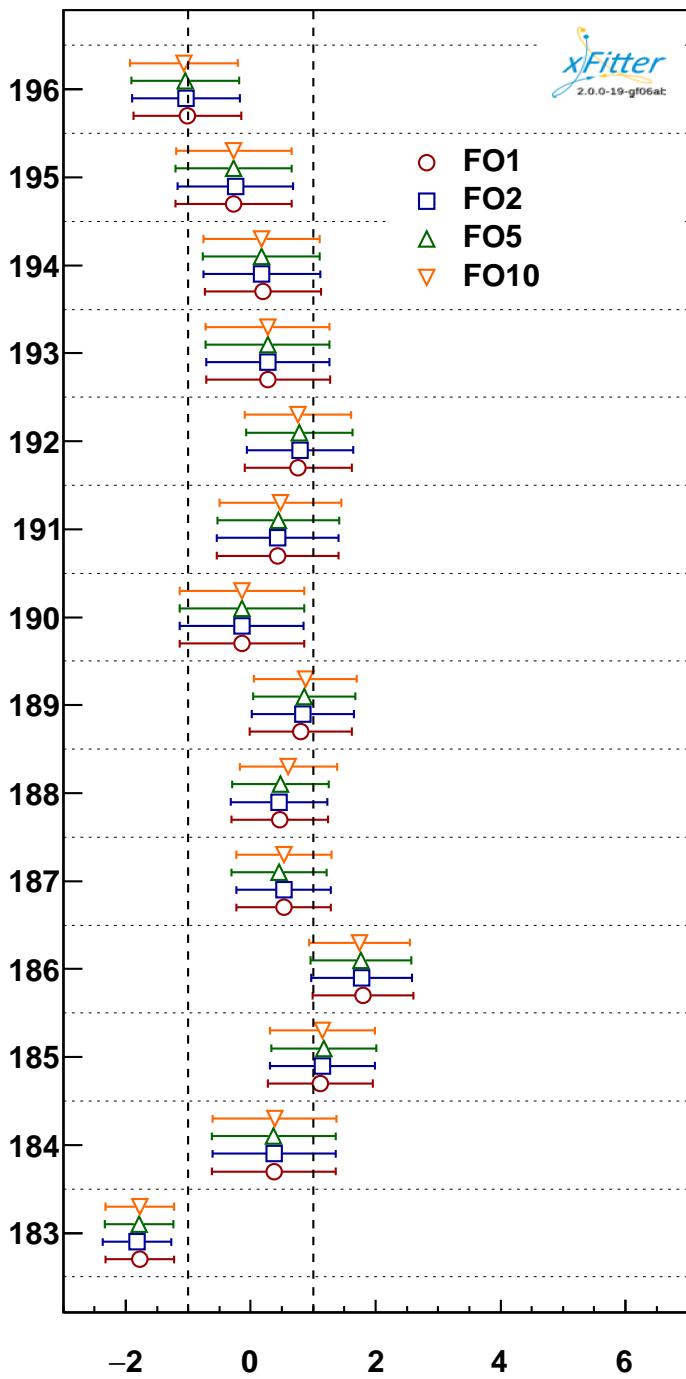
157 sysHZComb1085

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

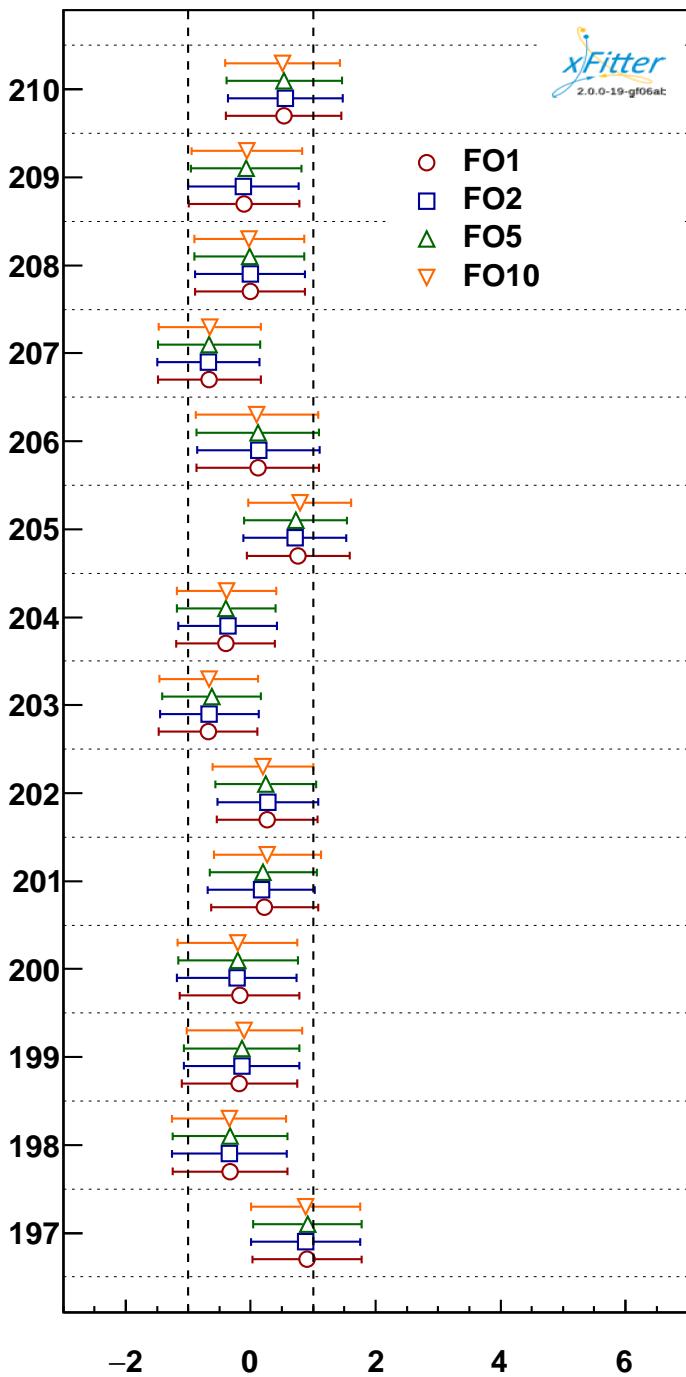
187 sysHZComb1115

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

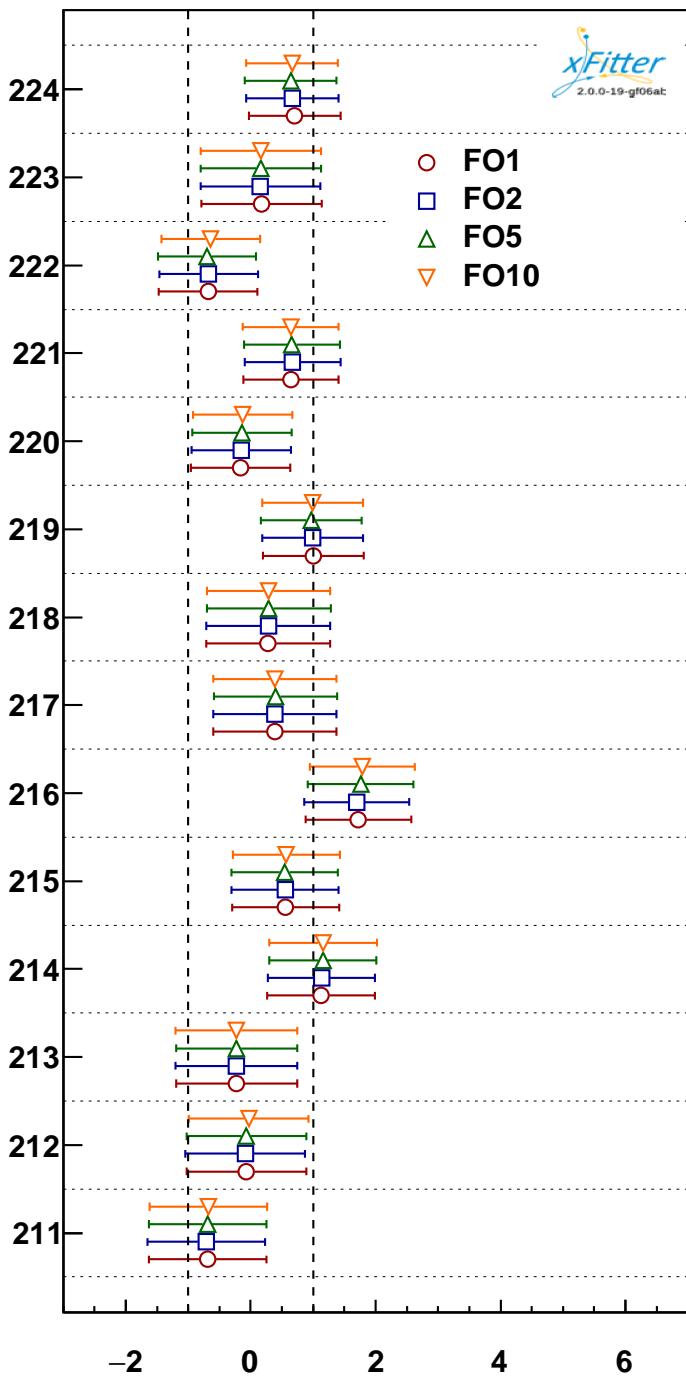
201 sysHZComb1129

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

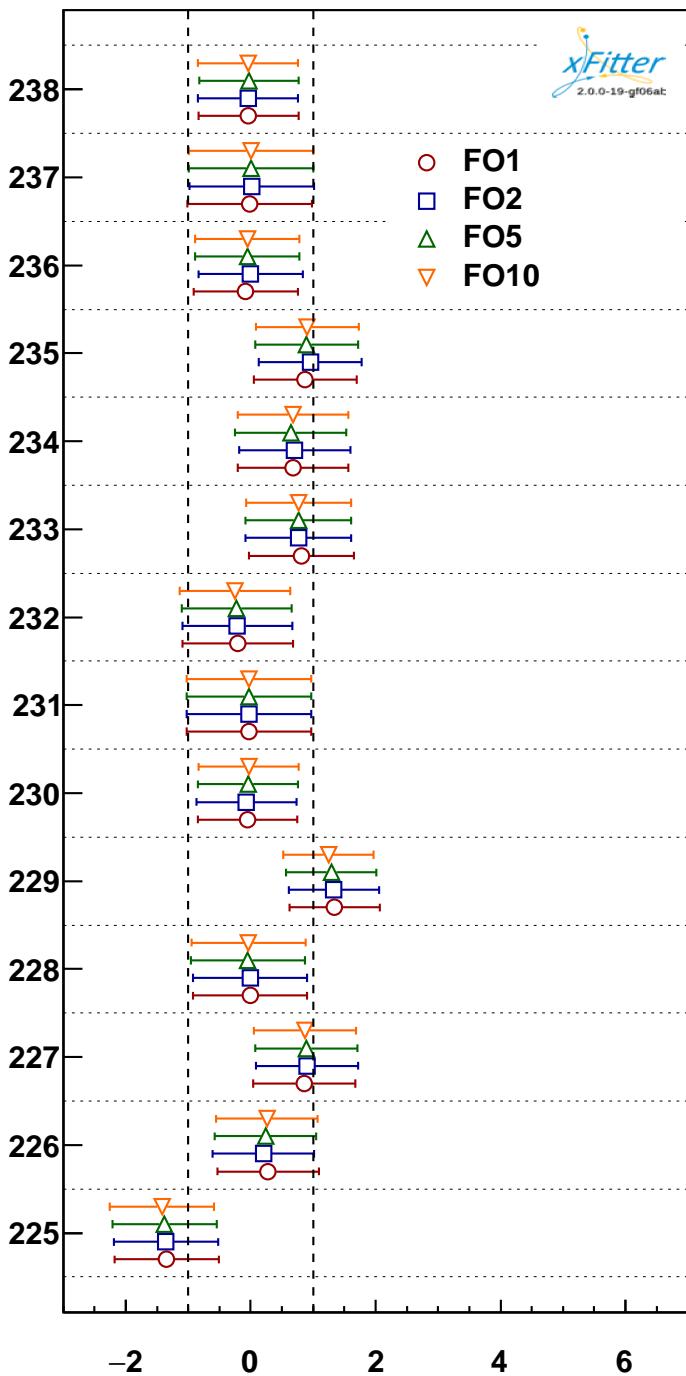
215 sysHZComb1143

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

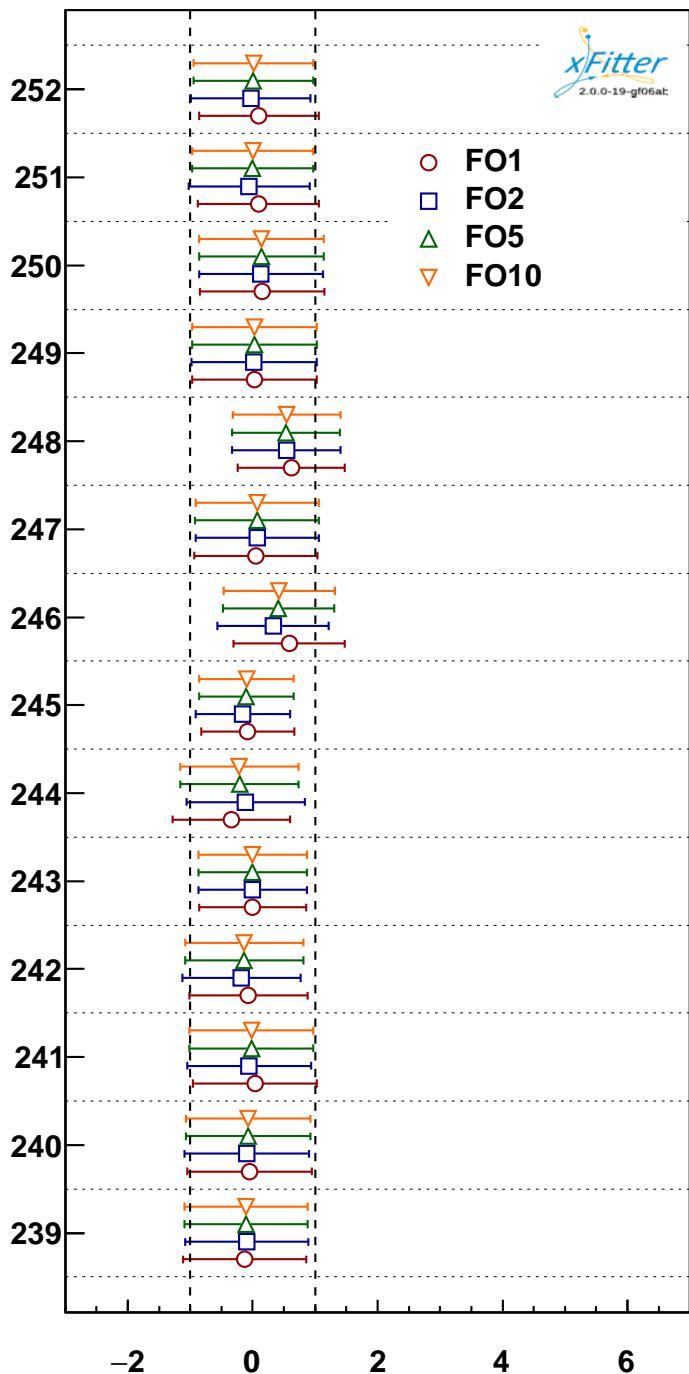
229 sysHZComb1157

228 sysHZComb1156

227 sysHZComb1155

226 sysHZComb1154

225 sysHZComb1153



252 $z bv_trackingef$

251 $z bv_renfacscale$

250 $z bv_mbeauty$

249 $z bv_lumi$

248 $z bv_lfas$

247 $z bv_jetenscale$

246 $z bv_fragfrac$

245 $z bv_emscale$

244 $z bv_core$

243 $z bv_beauty$

242 $z bv_asvar$

241 $z bv_MCmodetab$

240 $z bv_MCmodelq2b$

239 $z bv_MCmodelenjetc$

Dataset	FO1	FO2	FO5	FO10
Beauty cross section ZEUS Vertex	12 / 17	12 / 17	12 / 17	12 / 17
Charm cross section H1-ZEUS combined	46 / 47	46 / 47	46 / 47	46 / 47
HERA1+2 CCep	44 / 39	44 / 39	44 / 39	44 / 39
HERA1+2 CCem	52 / 42	52 / 42	52 / 42	53 / 42
HERA1+2 NCem	220 / 159	218 / 159	220 / 159	219 / 159
HERA1+2 NCep 820	65 / 70	64 / 70	65 / 70	65 / 70
HERA1+2 NCep 920	414 / 377	411 / 377	410 / 377	412 / 377
HERA1+2 NCep 460	221 / 204	221 / 204	221 / 204	219 / 204
HERA1+2 NCep 575	216 / 254	216 / 254	216 / 254	216 / 254
H1 F2 Beauty Vertex	3.1 / 12	3.5 / 12	3.1 / 12	3.2 / 12
Correlated χ^2	86	86	86	87
Log penalty χ^2	+6.7	+5.0	+4.3	+7.2
Total χ^2 / dof	1386 / 1207	1379 / 1207	1380 / 1207	1383 / 1207
χ^2 p-value	0.00	0.00	0.00	0.00

Parameter	FO1	FO2	FO5	FO10
'Bg'	0.17 ± 0.48	0.187 ± 0.034	0.175 ± 0.033	0.020 ± 0.024
'Cg'	9.4 ± 2.2	9.22 ± 0.47	8.63 ± 0.45	8.51 ± 0.35
'Aprig'	0.2 ± 2.0	0.26 ± 0.13	0.23 ± 0.11	1.16 ± 0.17
'Bprig'	-0.20 ± 0.57	-0.172 ± 0.057	-0.185 ± 0.057	-0.133 ± 0.019
'Cprig'	25.00	25.00	25.00	25.00
'Buv'	0.711 ± 0.040	0.716 ± 0.017	0.715 ± 0.017	0.720 ± 0.016
'Cuv'	4.728 ± 0.082	4.721 ± 0.060	4.731 ± 0.060	4.725 ± 0.059
'Euv'	13.7 ± 2.3	13.6 ± 1.0	13.8 ± 1.0	13.62 ± 0.98
'Bdv'	0.807 ± 0.098	0.824 ± 0.057	0.826 ± 0.058	0.822 ± 0.054
'Cdv'	4.05 ± 0.37	4.06 ± 0.27	4.02 ± 0.27	4.03 ± 0.26
'CUbar'	8.01 ± 0.79	7.90 ± 0.45	7.76 ± 0.45	7.80 ± 0.43
'DUbar'	14.5 ± 3.6	13.8 ± 1.7	12.8 ± 1.6	13.2 ± 1.5
'ADbar'	0.158 ± 0.014	0.1591 ± 0.0071	0.1629 ± 0.0073	0.1620 ± 0.0071
'BDbar'	-0.171 ± 0.011	-0.1707 ± 0.0056	-0.1681 ± 0.0057	-0.1689 ± 0.0055
'CDbar'	3.8 ± 1.3	4.23 ± 0.78	4.64 ± 0.86	4.29 ± 0.72
'alphas'	0.1180	0.1180	0.1180	0.1180
'fs'	0.4000	0.4000	0.4000	0.4000
Fit status	converged	not-a-fit	not-a-fit	not-a-fit
Uncertainties	migrad-hesse	not-a-fit	not-a-fit	not-a-fit