

Background method	Region	Bkg. \pm stat. (2016)	Bkg. \pm stat. (2017)	Bkg. \pm stat. (2018)
Anti-acoplanarity sideband	δ	1.5 ± 1.1	1.6 ± 0.8	14.2 ± 3.0
Anti-pruned mass sideband	δ	0.4 ± 0.2	0.9 ± 0.2	9.9 ± 0.9
Event mixing	δ	0.5 ± 0.9	1.5 ± 2.8	11.6 ± 9.4
Expected signal ($a_0^Z / \Lambda^2 = 1 \times 10^{-5} \text{ GeV}^{-2}$)	δ	1.3	1.4	9.0
Anti-acoplanarity sideband	o	1.5 ± 1.1	3.7 ± 1.5	37.4 ± 5.6
Anti-pruned mass sideband	o	2.1 ± 0.8	5.4 ± 1.3	41.7 ± 3.1
Event mixing	o	2.0 ± 1.8	6.3 ± 5.1	42.0 ± 15.5
Expected signal ($a_0^Z / \Lambda^2 = 1 \times 10^{-5} \text{ GeV}^{-2}$)	o	1.0	1.6	12.8