

Background method	Region	Bkg. \pm stat. (2016)	Bkg. \pm stat. (2017)	Bkg. \pm stat. (2018)
Anti-acoplanarity sideband	δ	0.4 ± 0.4	1.6 ± 1.0	11.6 ± 2.6
Anti-pruned mass sideband	δ	0.5 ± 0.2	1.5 ± 0.3	11.3 ± 0.8
Event mixing	δ	0.5 ± 0.9	1.8 ± 3.2	14.3 ± 8.9
Expected signal ($a_0^W / \Lambda^2 = 5 \times 10^{-6} \text{ GeV}^{-2}$)	δ	1.7	2.2	16.1
Anti-acoplanarity sideband	o	1.4 ± 0.9	10.0 ± 3.2	41.4 ± 5.7
Anti-pruned mass sideband	o	2.5 ± 0.8	7.1 ± 1.3	43.0 ± 3.0
Event mixing	o	2.4 ± 1.9	8.4 ± 6.3	49.3 ± 12.9
Expected signal ($a_0^W / \Lambda^2 = 5 \times 10^{-6} \text{ GeV}^{-2}$)	o	1.5	1.7	16.8