

Expected background	Low- p_T^{miss} category	High- p_T^{miss} category
SM $h \rightarrow \gamma\gamma$ (Vh)	$2.9 \pm 0.1 \text{ (stat)} \pm 0.2 \text{ (syst)}$	$1.26 \pm 0.05 \text{ (stat)} \pm 0.09 \text{ (syst)}$
SM $h \rightarrow \gamma\gamma$ (ggh, tth, VBF)	$5.3 \pm 0.3 \text{ (stat)} \pm 1.2 \text{ (syst)}$	$0.11 \pm 0.01 \text{ (stat)} \pm 0.01 \text{ (syst)}$
Nonresonant background	$125.1 \pm 11.2 \text{ (stat)}$	$4.5 \pm 2.1 \text{ (stat)}$
Total background	$133 \pm 11 \text{ (stat)} \pm 1 \text{ (syst)}$	$5.9 \pm 2.1 \text{ (stat)} \pm 0.1 \text{ (syst)}$
Observed events	159	6