

Signal process	\mathcal{A}_{fid}	ϵ	f_{nonfid}	$(1 + f_{\text{nonfid}})\epsilon$
Individual Higgs boson production modes				
$gg \rightarrow H$ (POWHEG+JHUGEN)	0.422 ± 0.001	0.647 ± 0.002	0.053 ± 0.001	0.681 ± 0.002
VBF (POWHEG)	0.476 ± 0.003	0.652 ± 0.005	0.040 ± 0.002	0.678 ± 0.005
WH (PYTHIA)	0.342 ± 0.002	0.627 ± 0.003	0.072 ± 0.002	0.672 ± 0.003
ZH (PYTHIA)	0.348 ± 0.003	0.634 ± 0.004	0.072 ± 0.003	0.679 ± 0.005
$t\bar{t}H$ (PYTHIA)	0.250 ± 0.003	0.601 ± 0.008	0.139 ± 0.008	0.685 ± 0.010
Some characteristic models of a Higgs-like boson with exotic decays and properties				
$q\bar{q} \rightarrow H(J^{CP} = 1^-)$ (JHUGEN)	0.238 ± 0.001	0.609 ± 0.002	0.054 ± 0.001	0.642 ± 0.002
$q\bar{q} \rightarrow H(J^{CP} = 1^+)$ (JHUGEN)	0.283 ± 0.001	0.619 ± 0.002	0.051 ± 0.001	0.651 ± 0.002
$gg \rightarrow H \rightarrow Z\gamma^*$ (JHUGEN)	0.156 ± 0.001	0.622 ± 0.002	0.073 ± 0.001	0.667 ± 0.002
$gg \rightarrow H \rightarrow \gamma^*\gamma^*$ (JHUGEN)	0.188 ± 0.001	0.629 ± 0.002	0.066 ± 0.001	0.671 ± 0.002