

Production mode	Discriminant	Main goal
ggH	$\mathcal{D}_{0-}^{\text{ggH}}$	separate between CP -even, CP -odd and mixed CP scenarios
ggH	$\mathcal{D}_{\text{CP}}^{\text{ggH}}$	differentiate the interference between CP -even and CP -odd
ggH	$\mathcal{D}_{\text{STXS}}^{\text{ggH}}$	separate H signal from non-resonant backgrounds
ggH	$\mathcal{D}_{\text{bkg}}^{\text{ggH}+2\text{jets}}$	separate between (SM and CP -odd) ggH + 2 jets signal from resonant and non resonant background
ggH	$\mathcal{D}_{\text{BSM}}^{\text{ggH}+2\text{jets}}$	separate between BSM CP -odd ggH + 2 jets signal from SM and resonant and non-resonant background