

Category	VBF-jet	VH-jet	Untagged
Target	$qq'VV \rightarrow qq'H \rightarrow (jj)(4\ell)$	$q\bar{q} \rightarrow VH \rightarrow (jj)(4\ell)$	$H \rightarrow 4\ell$
Selection	$\mathcal{D}_{2\text{jet}}^{\text{VBF}}$ or $\mathcal{D}_{2\text{jet}}^{\text{VBF,BSM}} > 0.5$	$\mathcal{D}_{2\text{jet}}^{\text{ZH}}$ or $\mathcal{D}_{2\text{jet}}^{\text{ZH,BSM}}$ or $\mathcal{D}_{2\text{jet}}^{\text{WH}}$ or $\mathcal{D}_{2\text{jet}}^{\text{WH,BSM}} > 0.5$	not VBF-jet not VH-jet
f_{a3} obs.	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0-}^{\text{VBF+dec}}, \mathcal{D}_{\text{CP}}^{\text{VBF}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0-}^{\text{VH+dec}}, \mathcal{D}_{\text{CP}}^{\text{VH}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0-}^{\text{dec}}, \mathcal{D}_{\text{CP}}^{\text{dec}}$
f_{a2} obs.	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0h+}^{\text{VBF+dec}}, \mathcal{D}_{\text{int}}^{\text{VBF}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0h+}^{\text{VH+dec}}, \mathcal{D}_{\text{int}}^{\text{VH}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{0h+}^{\text{dec}}, \mathcal{D}_{\text{int}}^{\text{dec}}$
$f_{\Lambda 1}$ obs.	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{VBF+dec}}, \mathcal{D}_{0h+}^{\text{VBF+dec}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{VH+dec}}, \mathcal{D}_{0h+}^{\text{VH+dec}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{dec}}, \mathcal{D}_{0h+}^{\text{dec}}$
$f_{\Lambda 1}^{\text{Z}\gamma}$ obs.	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{Z}\gamma, \text{VBF+dec}}, \mathcal{D}_{0h+}^{\text{VBF+dec}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{Z}\gamma, \text{VH+dec}}, \mathcal{D}_{0h+}^{\text{VH+dec}}$	$\mathcal{D}_{\text{bkg}}, \mathcal{D}_{\Lambda 1}^{\text{Z}\gamma, \text{dec}}, \mathcal{D}_{0h+}^{\text{dec}}$