

Category	VBF-tagged	VH-tagged	Untagged
Selection	$\mathcal{D}_{2\text{jet}}^{\text{VBF}} > 0.5$	$\mathcal{D}_{2\text{jet}}^{\text{ZH}}$ or $\mathcal{D}_{2\text{jet}}^{\text{WH}} > 0.5$	Rest of events
Observables	$m_{4\ell}, \mathcal{D}_{\text{bkg}}^{\text{VBF+dec}}, \mathcal{D}_{\text{bsi}}^{\text{VBF+dec}}$	$m_{4\ell}, \mathcal{D}_{\text{bkg}}^{\text{VH+dec}}, \mathcal{D}_{\text{bsi}}^{\text{VH+dec}}$	$m_{4\ell}, \mathcal{D}_{\text{bkg}}^{\text{kin}}, \mathcal{D}_{\text{bsi}}^{\text{gg,dec}}$