

Production mode	Discriminant	Main goal
VBF	$\mathcal{D}_{0-}^{\text{VBF}}$	separate between CP -even, CP -odd and mixed CP scenarios
VBF	$\mathcal{D}_{\text{NNbkg}}^{\text{VBF}}$	separate H signal from non-resonant backgrounds
VBF	$\mathcal{D}_{\text{NNBSM}}^{\text{VBF}}$	separate between SM H and several BSM H scenarios
V(had)H	$\mathcal{D}_{\text{bkg}}^{\text{VHhad}}$	separate H signal from non-resonant backgrounds
V(had)H	$\mathcal{D}_{\text{BSM}}^{\text{VHhad}}$	separate between SM H and several BSM H scenarios
$W(\ell\nu)H$	$\mathcal{D}_{\text{STXS}}^{\text{WHlep}}$	separate H signal from non-resonant backgrounds
$W(\ell\nu)H$	$\mathcal{D}_{\text{BSM}}^{\text{WHlep}}$	separate H signal from several BSM H scenarios
$Z(\ell\ell)H$	$\mathcal{D}_{\text{STXS}}^{\text{ZHlep}}$	separate H signal from non-resonant backgrounds
$Z(\ell\ell)H$	$\mathcal{D}_{\text{BSM}}^{\text{ZHlep}}$	separate H signal from several BSM H scenarios
$Z(\nu\nu)H$	$\mathcal{D}_{\text{STXS}}^{\text{VHMET}}$	separate H signal from non-resonant backgrounds
$Z(\nu\nu)H$	$\mathcal{D}_{\text{BSM}}^{\text{VHMET}}$	separate H signal from several BSM H scenarios