

Decay mode	Observables	Data set
$H \rightarrow \gamma\gamma$ [526]	$p_T^{\gamma\gamma}, n_j, y^{\gamma\gamma} , \cos(\theta^*) , \phi_\eta, n_{\text{b jet}}, n_\ell, p_T^{\text{miss}},$ $p_T^{j1}, y_{j1} , \Delta\phi_{\gamma\gamma,j1} , \Delta y_{\gamma\gamma,j1} , \mathcal{T}_C^j,$ $p_T^{j2}, y_{j2} , \Delta\Phi_{j1,j2} , \Delta\Phi_{\gamma\gamma,j1j2} ,$ $ \bar{\eta}_{j1j2} - \eta_{\gamma\gamma} , m_{jj}, \Delta\eta_{j1j2} $	137 fb^{-1}
$H \rightarrow ZZ \rightarrow 4\ell$ [527]	$p_T^H, y_H , n_j, p_T^{j1}, p_T^{j2}, m_{jj},$ $\Delta\Phi_{jj}, \Delta\eta_{jj} , m_{Hj}, p_T^{Hj}, p_T^{Hjj}, \mathcal{T}_C^{\text{max}}, \mathcal{T}_B^{\text{max}},$ $m_{Z1}, m_{Z2}, \cos\theta^*, \cos\theta_1, \cos\theta_2, \Phi, \Phi_1,$ $D_{0-}^{\text{dec}}, D_{0h+}^{\text{dec}}, D_{CP}^{\text{dec}}, D_{\text{int}}^{\text{dec}}, D_{\Lambda 1}^{\text{dec}}, D_{\Lambda 1}^{Z\gamma, \text{dec}}$	138 fb^{-1}
$H \rightarrow \tau\tau$ [528]	p_T^H, n_j, p_T^{j1}	137 fb^{-1}
$H \rightarrow WW$ [529]	p_T^H, n_j	137 fb^{-1}
Boosted $H \rightarrow b\bar{b}$ [537]	p_T^H ($p_T^H > 450 \text{ GeV}$)	137 fb^{-1}
Combination $H \rightarrow \gamma\gamma$	p_T^H, n_j, y_H, p_T^j	36 fb^{-1}
$H \rightarrow ZZ^*, H \rightarrow b\bar{b}$ [539]		