Control region	Quantity	Requirement
$W^-W^+/t\bar{t}$	N_ℓ ($N_{\ell,\text{tight}}$)	$= 2$ (2)
	Dilepton flavour/charge	$e^\mp\mu^\pm$
	Number of b jets	$= 0$
	pNN(m_H, m_A)	> 0.9
	Fit variable	Dilepton p_T
$t\bar{t}$	N_ℓ ($N_{\ell,\text{tight}}$)	$= 2$ (2)
	Dilepton flavour/charge	$e^\mp\mu^\pm$
	Number of b jets	≥ 1
	pNN(m_H, m_A)	> 0.9
	Fit variable	Dilepton p_T
ZZ	N_ℓ ($N_{\ell,\text{tight}}$)	$= 4$ (≥ 2)
	Both dilepton flavour/charge	$e^-e^+/\mu^-\mu^+$
	Second dilepton mass	$\lvert m_{\ell\ell} - m_Z\rvert < 10\,\text{GeV}$
	pNN(m_H, m_A)	> 0.8
	Fit variable	pNN(m_H, m_A)
WZ opposite-charge	N_ℓ ($N_{\ell,\text{tight}}$)	$= 3$ (3)
	Dilepton flavour/charge	$e^\mp e^\pm/\mu^\mp\mu^\pm$
	pNN(m_H, m_A)	> 0.9
	Fit variable	pNN(m_H, m_A)
WZ same-charge	N_ℓ ($N_{\ell,\text{tight}}$)	$= 3$ (3)
	Dilepton flavour/charge	$e^\pm e^\pm/\mu^\pm\mu^\pm$
	pNN(m_H, m_A)	> 0.9
	Fit variable	pNN(m_H, m_A)
MisID same-flavour	N_ℓ ($N_{\ell,\text{tight}}$)	$= 2$ (2)
	Dilepton flavour/charge	$e^\pm e^\pm/\mu^\pm\mu^\pm$
	Number of b jets	$= 0$
	pNN(m_H, m_A)	> 0.9
	Fit variable	pNN(m_H, m_A)
MisID different-flavour	N_ℓ ($N_{\ell,\text{tight}}$)	$= 2$ (2)
	Dilepton flavour/charge	$e^\pm\mu^\pm$
	Number of b jets	$= 0$
	pNN(m_H, m_A)	> 0.9
	Fit variable	Dilepton p_T