

Label	Channels	Q_ℓ	OSSF n	M_{OSSF}	N_b	S_T	N_j	p_{T3}	M_ℓ	Dilepton mass
$W\phi(\tau\tau)$ SR1	3L	1	0	—	0	>200	—	>15	>150	$M_{e\mu}^{\min}$
$W\phi(\tau\tau)$ SR2	2L1T+1L2T	1	0	—	0	>200	—	>30	>150	$M_{\ell\tau}^{\min}$
$W\phi(\tau\tau)$ SR3	1L2T	1	1	—	0	>200	—	>30	>150	$M_{\tau\tau}^{\min}$
$Z\phi(\tau\tau)$ SR1	4L+2L2T	0	1	—	0	>200	—	—	—	$M_{e\mu}^{\min}$
$Z\phi(\tau\tau)$ SR2	3L1T	0	1	—	0	>200	—	—	—	$M_{\ell\tau}^{\min}$
$Z\phi(\tau\tau)$ SR2	2L2T	0	0	—	0	>200	—	—	—	$M_{\ell\tau}^{\min}$
$Z\phi(\tau\tau)$ SR3	2L2T	0	2	—	0	>200	—	—	—	$M_{\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR1	3L	1	0	—	0	>400	>1	>15	>100	$M_{e\mu}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR2	2L1T+1L2T	1	0	—	0	>400	>1	>30	>100	$M_{\ell\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR3	1L2T	1	1	—	0	>400	>1	>30	>100	$M_{\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR4	3L	1	1	OffZ	>0	>400	>1	>15	>100	$M_{e\mu}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR4	3L	1	0	—	>0	>400	>1	>15	>100	$M_{e\mu}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR5	2L1T+1L2T	1	0	—	>0	>400	>1	>30	>100	$M_{\ell\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR6	1L2T	1	1	—	>0	>400	>1	>30	>100	$M_{\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR7	3L1T	0	1	OffZ	—	>400	—	—	—	$M_{\ell\tau/\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR7	3L1T	0	0	—	—	>400	—	—	—	$M_{\ell\tau/\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR7	2L2T	0	2	OffZ	—	>400	—	—	—	$M_{\ell\tau/\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR7	2L2T	0	<2	—	—	>400	—	—	—	$M_{\ell\tau/\tau\tau}^{\min}$
$t\bar{t}\phi(\tau\tau)$ SR7	1L3T	0	1	—	—	>400	—	—	—	$M_{\ell\tau/\tau\tau}^{\min}$