

tHq(2ISS+1 τ)

SR

CR $t\bar{t}+t\bar{t}X$

$t\bar{t}$ hdamp=3mtp

$t\bar{t}$ FSR

$t\bar{t}$ ISR

$t\bar{t}$ μ_R, μ_F scale

$t\bar{t}$ μ_F scale

$t\bar{t}$ μ_R scale

$t\bar{t}$ PS + had.

$t\bar{t}$ NLO gen.

$t\bar{t}Z$ ISR

$t\bar{t}Z$ μ_R, μ_F scale

$t\bar{t}Z$ μ_F scale

$t\bar{t}Z$ μ_R scale

$t\bar{t}Z$ NLO gen. + PS + had.

$t\bar{t}W$ ISR

$t\bar{t}W$ μ_R, μ_F scale

$t\bar{t}W$ μ_F scale

$t\bar{t}W$ μ_R scale

$t\bar{t}W$ NLO gen. + PS + had.

tW FSR

tW ISR

tW μ_R, μ_F scale

tW μ_F scale

tW μ_R scale

tW PS + had.

tW NLO gen.

tW (DR vs. DS)

Diboson μ_R, μ_F scale

Diboson μ_F scale

Diboson μ_R scale

Diboson NLO gen. + PS + had.

$t\bar{t}H$ FSR

$t\bar{t}H$ ISR

$t\bar{t}H$ μ_R, μ_F scale

$t\bar{t}H$ μ_F scale

$t\bar{t}H$ μ_R scale

$t\bar{t}H$ PS + had.

$t\bar{t}H$ NLO gen.

tZq ISR

tZq μ_R, μ_F scale

tZq μ_F scale

tZq μ_R scale

tZq PS + had.

tWZ μ_R, μ_F scale

tWZ μ_F scale

tWZ μ_R scale

tWZ (alt. DR)

tWH μ_R, μ_F scale

tWH μ_F scale

tWH μ_R scale

tWH PS + had.

tHq μ_R, μ_F scale

tHq μ_F scale

tHq μ_R scale

tHq PS + had.

tWH XS

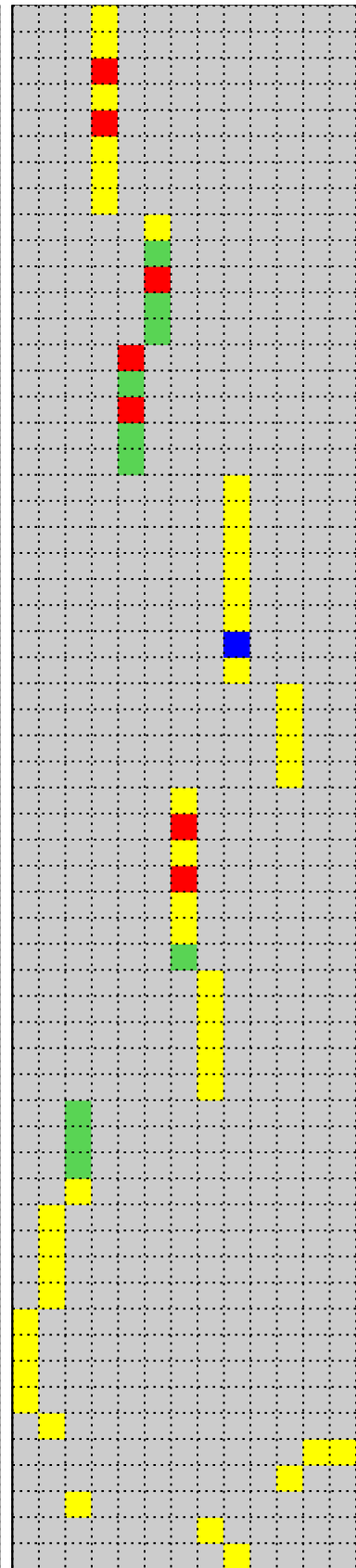
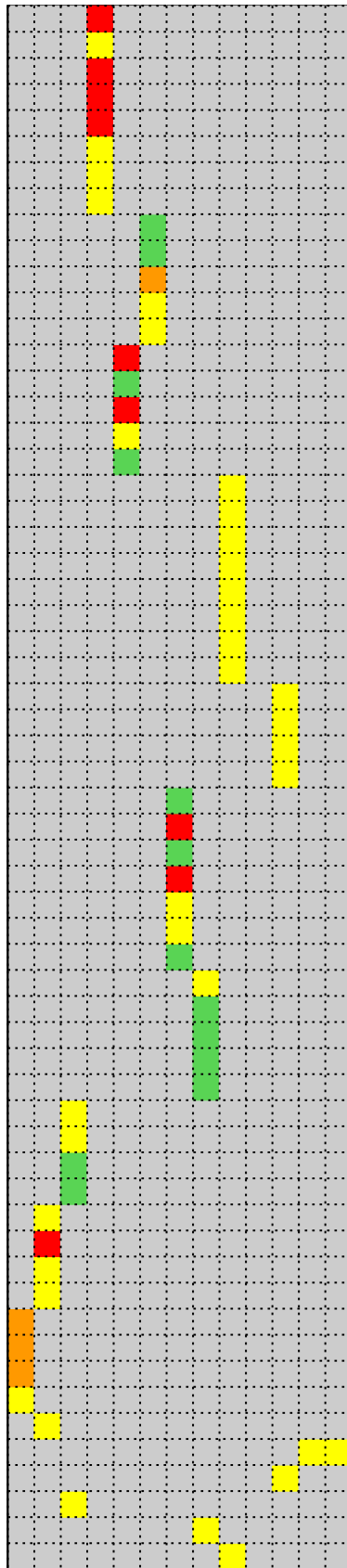
Minor bkg. XS

Diboson XS

tWZ XS

tZq XS

tW XS



Not present
 Kept
 Shape dropped
 Norm. dropped
 Dropped
 Norm >99% (dropped)
 Bad shape (dropped)
 Bad shape & norm. (dropped)

tHq tWH tWZ $t\bar{t}$ $t\bar{t}W$ $t\bar{t}Z$ $t\bar{t}H$ tZq tW $Z+\text{jets}$ Diboson minor bkg. minor bkg.
 tHq tWH tWZ $t\bar{t}$ $t\bar{t}W$ $t\bar{t}Z$ $t\bar{t}H$ tZq tW $Z+\text{jets}$ Diboson minor bkg. minor bkg.