

## Event sample legend

**ZL** = Zero Lepton;  
signal sample

**SL** = Single Lepton;  
top & W+jets control  
sample

**LDP** = low  $\Delta\hat{\phi}_{\min}$ ;  
QCD control  
sample

**Zee** =  $Z \rightarrow e^+e^-$ ;  
Z to  $\nu\bar{\nu}$  control  
sample

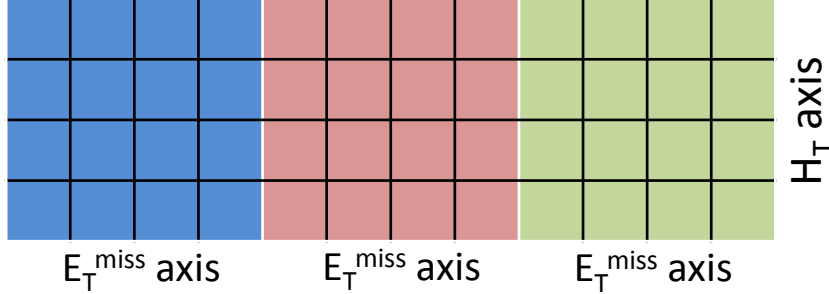
**Z $\mu\mu$**  =  $Z \rightarrow \mu^+\mu^-$ ;  
Z to  $\nu\bar{\nu}$  control  
sample

**ZL**

**SL**

**LDP**

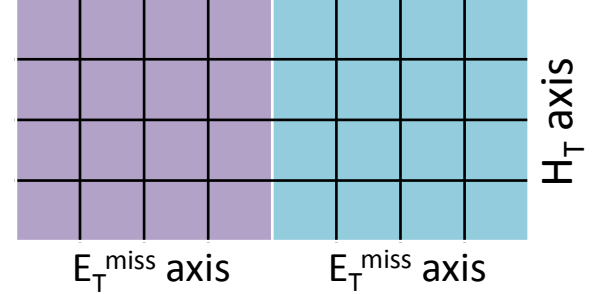
$N_{b\text{-jet}} = 1$



**Zee**

**Z $\mu\mu$**

Loose  
b-jet  
tagging

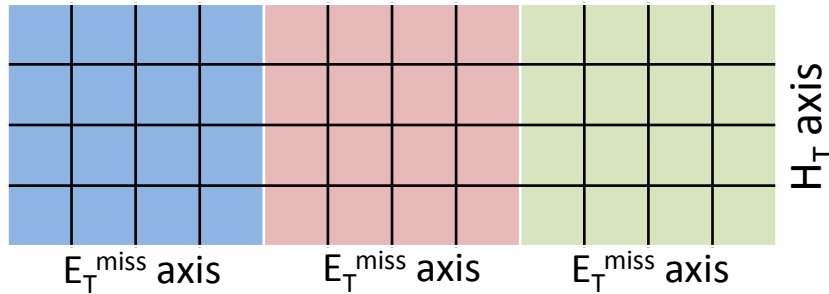


**ZL**

**SL**

**LDP**

$N_{b\text{-jet}} = 2$

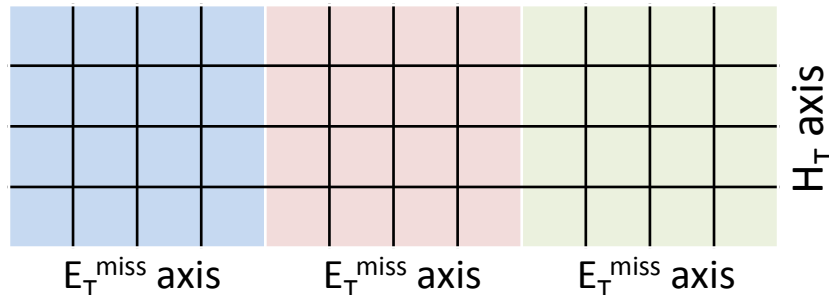


**ZL**

**SL**

**LDP**

$N_{b\text{-jet}} \geq 3$



Bin	$H_T$ (GeV)	$E_T^{\text{miss}}$ (GeV)
1	400 – 500 (HT1)	125 – 150 (MET1)
2	500 – 800 (HT2)	150 – 250 (MET2)
3	800 – 1000 (HT3)	250 – 350 (MET3)
4	> 1000 (HT4)	> 350 (MET4)