

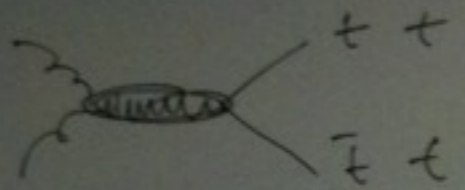
# Heavy Flavor: Progress Report

$t-t, b-$   
 $t\bar{t} \phi_{t\bar{t}}^c$   
 $t\bar{b} H^{+c}$   
 $t\bar{t} \phi_{0,3}^{j=0,1c}$   
 $t\bar{t} \Delta_{tt}^c$   
 $t\bar{b} \Delta_{t\bar{b}}^c$   
 $t\bar{t} \tilde{T}^c$   


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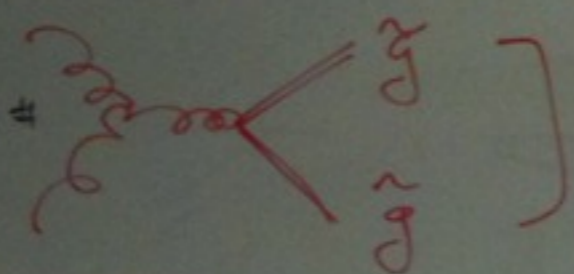
 $t X_t X_B$

MARTIN WEIRD



$\phi, W', Z', \Delta_{tt}$  "double" top

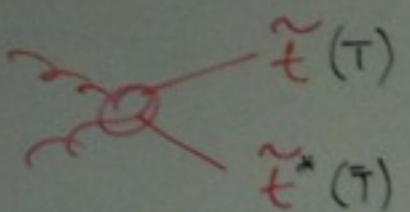
NO TOP QUANTUM #



$t\bar{t}\bar{t}\bar{t}$   
 SUSY  
 $t\bar{t}b\bar{b} + X_{LL}$

colored singlets

$X_B \rightarrow Z^* X$   
 TOP QUANTUM #

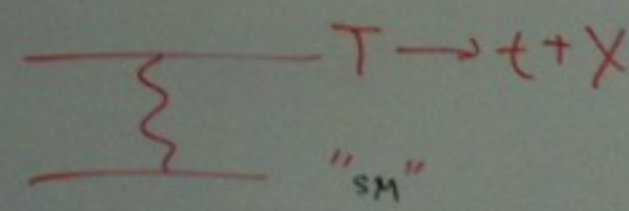


4th gen SUSY

$T \rightarrow t\bar{t}t$

$t^* \rightarrow t g$

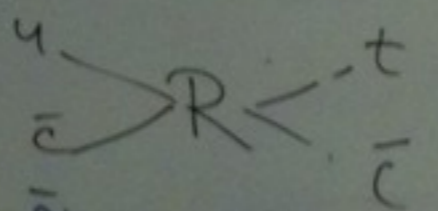
MIXING



4th gen mixing

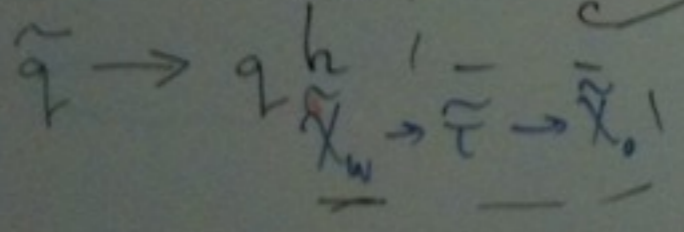
$j j z^+ z^- \tilde{E}_T$

WEIRD FC/NC

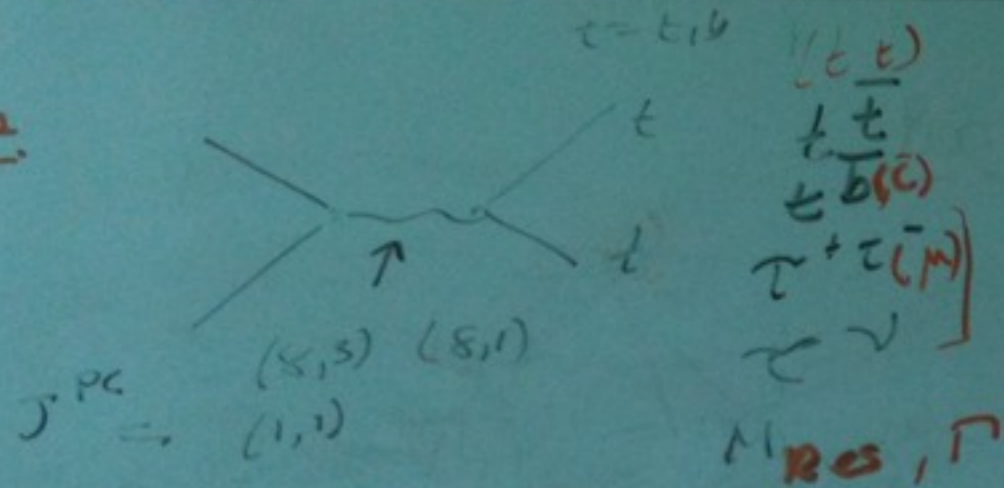


HORIZONTAL SYMM.

single top



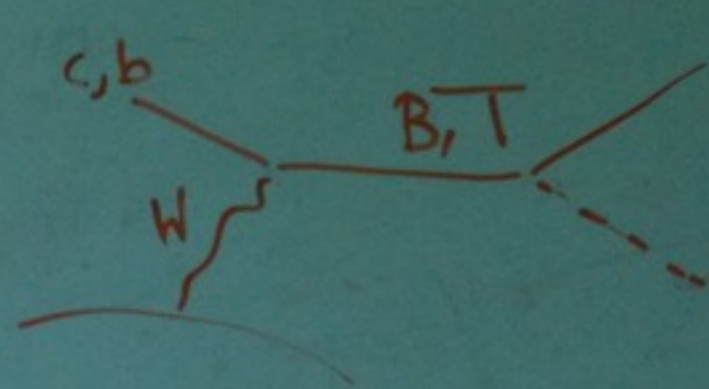
Resonances



HFR = "heavy flavor Resonance"

$W^+ \mu$   
 $C^+ \mu$

$\Gamma_{RES}, \Gamma$   
 $\sigma \cdot BR$



$t Z/W$   
 $b Z/W + j$   
 $b, t h$

single heavy quarks

$b^+ Z B$

$\sigma \cdot Br, M$