Studies on interference effects of flavor changing neutral currents in the top sector ($tu\gamma$, $tc\gamma$ couplings) (tuZ crosscheck)

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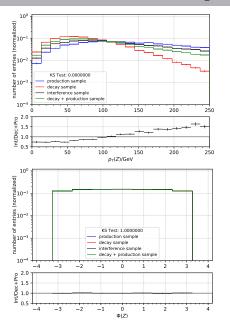
April 9, 2018

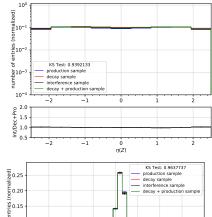


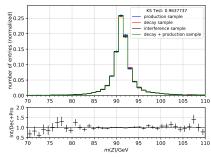
Productions:

- Cross sections after decay (with $Z \rightarrow II$ and leptonic t decay)
- Production mode sample: $\sigma = (1.033 \pm 0.001) \cdot 10^{-2} \, \mathrm{pb}$
- generate p p > t Z \$\$ t \sim , add p p > t j Z \$\$ t \sim + anti-particle processes
- Decay mode sample: $\sigma = (1.325 \pm 0.001) \cdot 10^{-2} \, \text{pb}$
- generate p p > t t \sim > w+ b Z j \sim + anti-particle process
- Interference Sample: $\sigma = (1.35 \pm 0.01) \cdot 10^{-2} \, \mathrm{pb}$
- generate p p > t Z, add p p > t j Z + anti-particle processes
- Parameters $Im(C_{uW}) = 0.2835 Im(C_{uB}) = -0.2835$

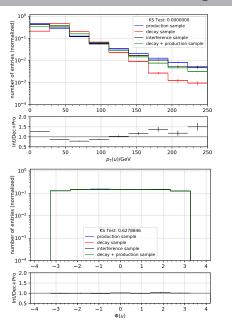


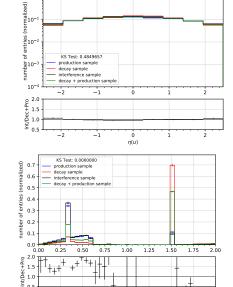






10°

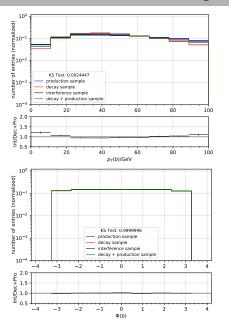


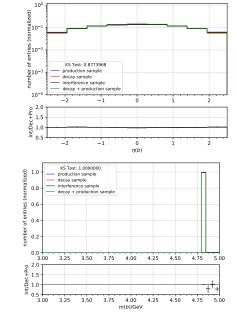


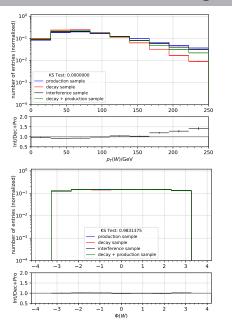
m(u)/GeV

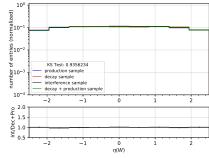
0.5

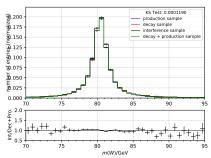
0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00



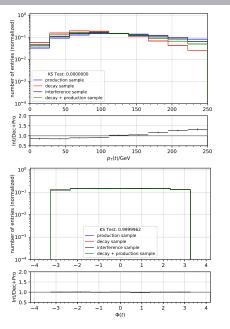


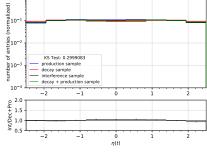


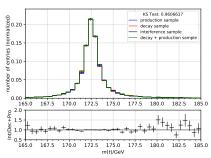




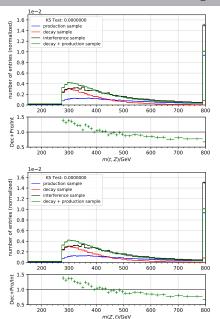
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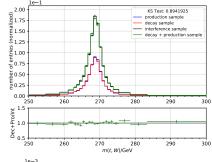


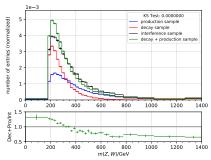


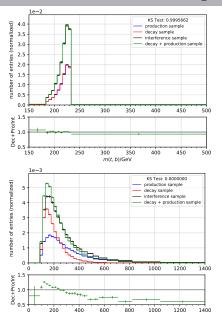


interference vs. decay+production









m(Z,b)/GeV

