

Studies on interference effects of flavor changing neutral currents in the top sector (tu_γ, tc_γ couplings) (tu_Z crosscheck)

Salvatore La Cagnina

Technische Universität Dortmund, Lehrstuhl EIV

April 9, 2018

Productions:

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













