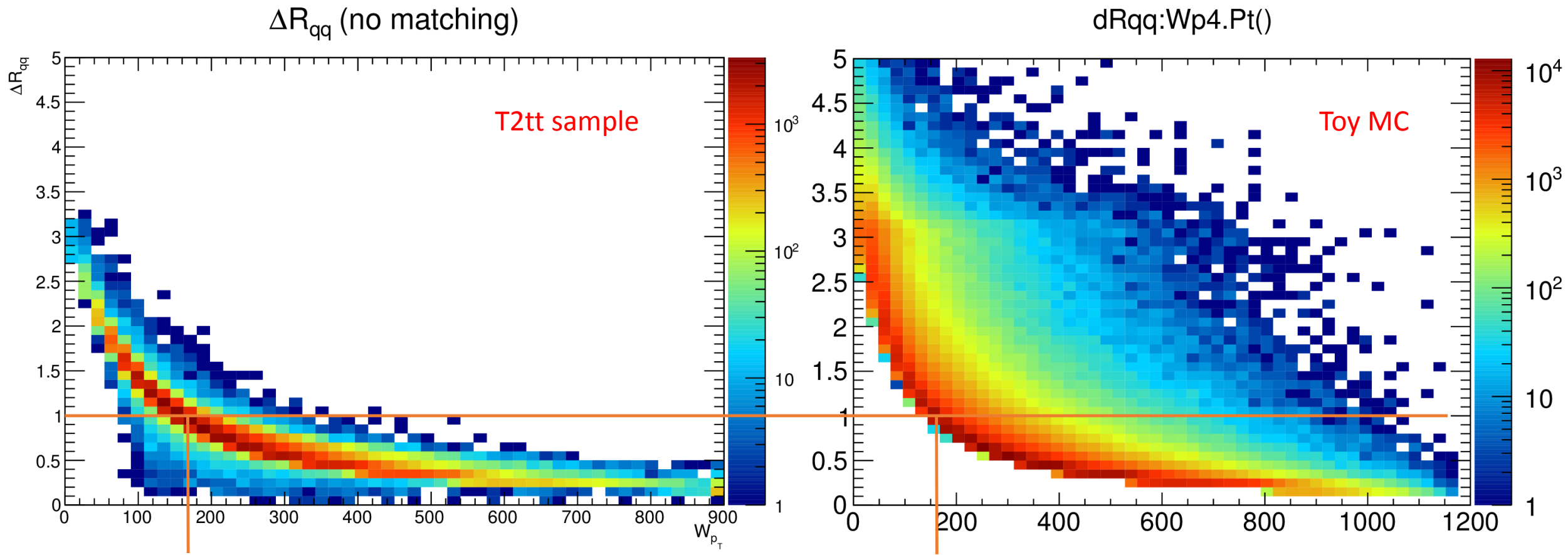
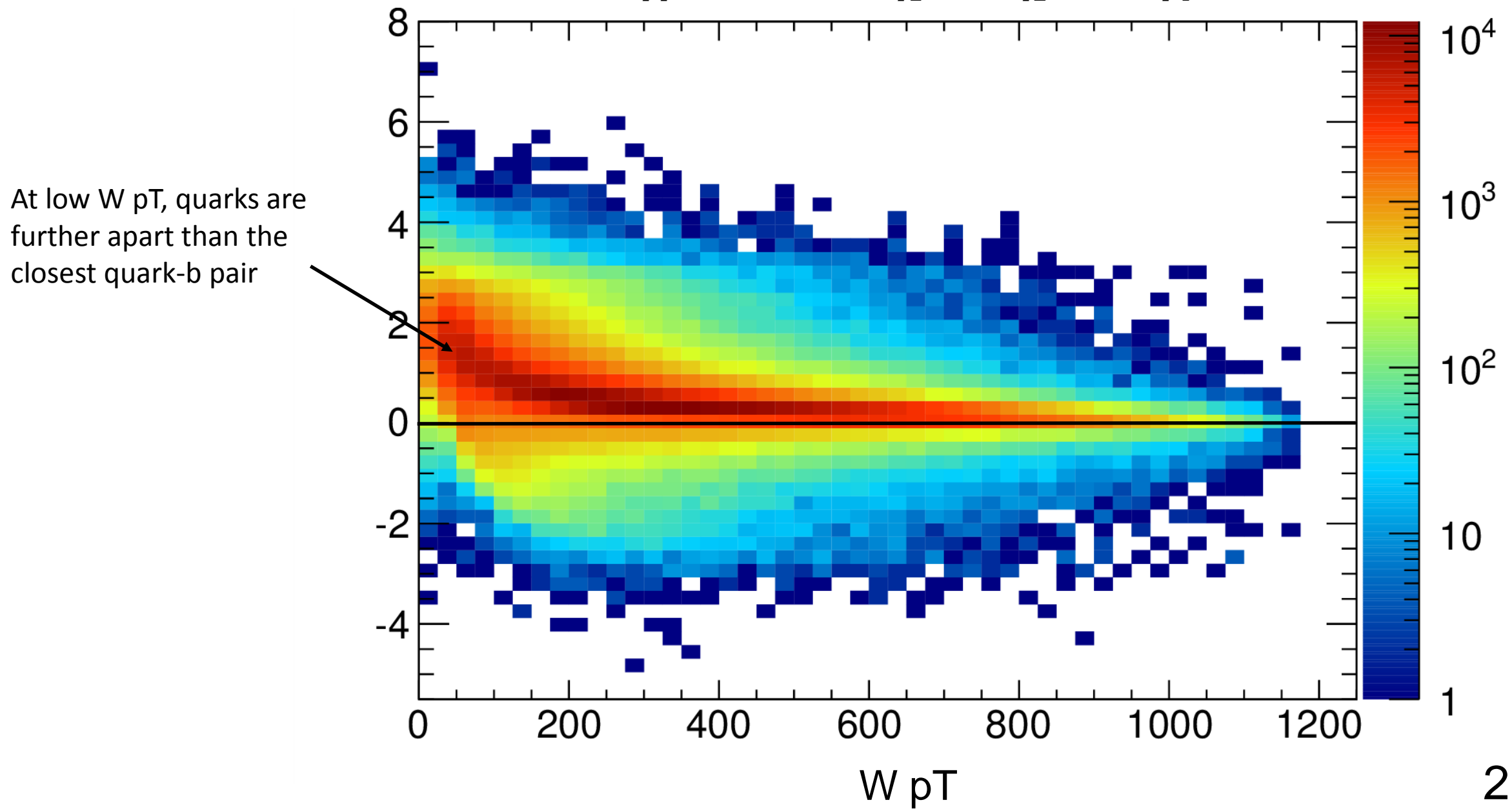


# Benchmark: Quark Separation vs $W$ $p_T$



$\Delta R_{qq} \approx 1$  for  $W_{p_T} \approx 160$  GeV in both cases (good agreement)

$\Delta R_{qq} - \min(\Delta R_{bq_1}, \Delta R_{bq_2})$  vs  $W_{pT}$



# $\Delta R_{qq} - \min(\Delta R_{bq_1}, \Delta R_{bq_2})$ vs $W_{pT}$

At high  $W_{pT}$ , quarks are still further apart than the closest quark-b pair

So q-b merges before q-q

