Production of $\mathbf{K^0_S K^0_S}$ pairs in diffractive proton-proton collisions at $\sqrt{\mathbf{s}} = \mathbf{510}$ GeV in the STAR experiment - 4 TPC tracks marched with TOF Detector

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The following selection criteria were used in the analysis:

- Trigger and proton preselection
- 4 TOF-matched tracks
- net 0 charge
- $|\eta| < 0.9$, $p_{\mathrm{T}} > 0.2$ GeV, $N_{fit} \geq 25$

i component of momentum: $p_i = 255 \cdot \theta_i$

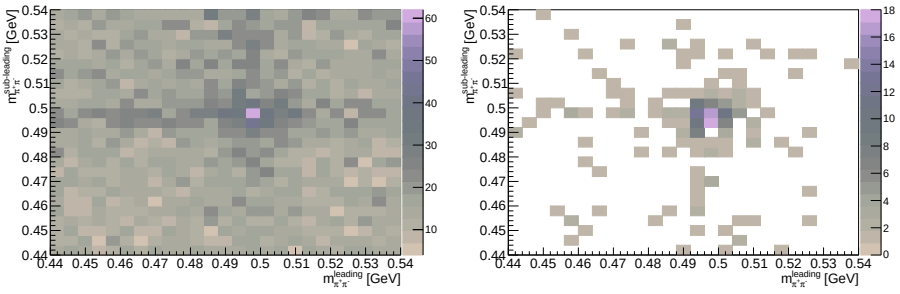

Figure 1: Sub-leading vs leading kaon invariant mass for data (left) and Monte Carlo (right).

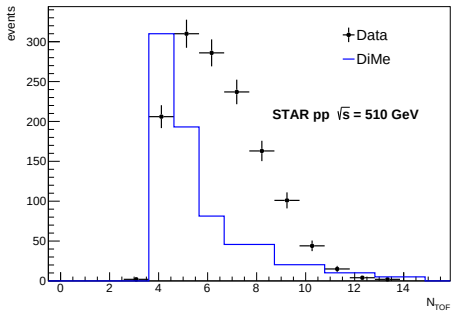

Figure 2: p_{T}^{miss}, kaons in narrow mass window

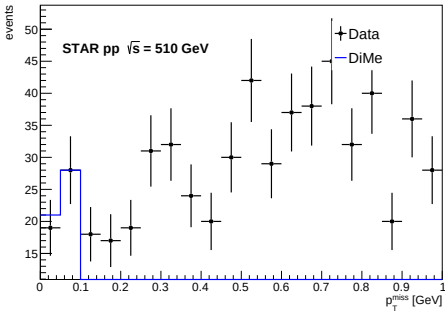

Figure 3: $N_{TOF}^{clusters}$, kaons in narrow mass window

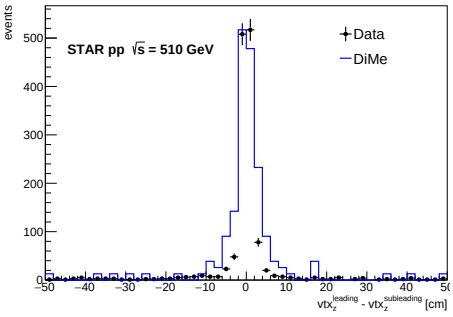

Figure 4: $vtx_z^{leading} - vtx_z^{subleading}$, kaon in narrow mass window

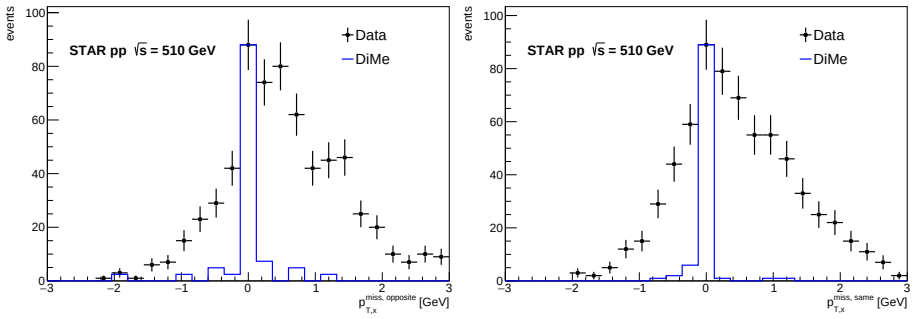

Figure 5: $p_{\mathrm{T},x}^{miss}$

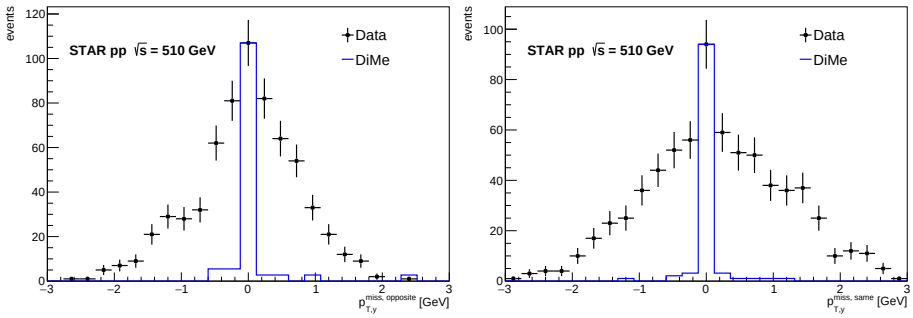

Figure 6: $p_{\mathrm{T},y}^{miss}$

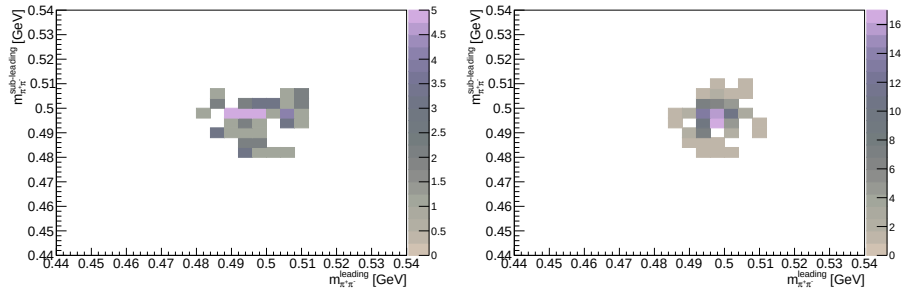

Figure 7: Sub-leading vs leading kaon invariant mass for data (left) and Monte Carlo (right), p_T^{miss} <0.15 GeV, $N_{TOF}^{clusters} \leq 9$

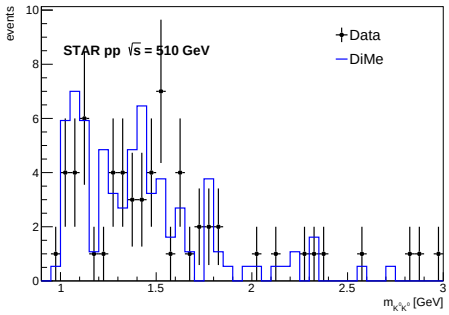

Figure 8: $m_{K^0K^0}$, p_T^{miss} <0.15 GeV, $N_{TOF}^{clusters} \leq 9$