## 0.1 Systematic Errors: $\Lambda K^{\pm}$

DCA $\Lambda(\bar{\Lambda})$

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 4 vs 5 mm | | | 5 vs 6 mm | | |
| $\Lambda K^+$ | 0-10% | -6.666e-03 | 2.086e-02 | No | -1.019e-02 | 6.227e-02 | No |
| | 10-30% | -6.310e-03 | 2.986e-02 | No | -2.460e-02 | 4.712e-02 | No |
| | 30-50% | -5.296e-02 | 6.016e-02 | No | -7.354e-04 | 4.393e-04 | No |
| $\bar{\Lambda}K^-$ | 0-10% | -1.678e-04 | 8.219e-05 | Yes | -2.776e-04 | 1.373e-04 | Yes |
| | 10-30% | -7.670e-04 | 2.620e-04 | Yes | -4.637e-03 | 3.803e-02 | No |
| | 30-50% | -2.464e-02 | 1.694e-01 | No | -5.859e-04 | 5.850e-03 | No |
| $\Lambda K^-$ | 0-10% | -3.957e-04 | 9.414e-04 | No | -1.755e-04 | 1.311e-04 | No |
| | 10-30% | -8.918e-04 | 4.324e-04 | Yes | -3.992e-04 | 2.014e-04 | No |
| | 30-50% | -1.631e-03 | 1.318e-03 | Yes | -8.526e-04 | 7.790e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -1.581e-04 | 2.243e-04 | No | -1.169e-02 | 1.167e-01 | No |
| | 10-30% | -5.592e-04 | 2.294e-04 | Yes | -1.115e-03 | 1.203e-03 | No |
| | 30-50% | -3.128e-03 | 2.911e-03 | Yes | -5.595e-05 | 8.072e-04 | Yes |

**Table 1:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$

DCA $\Lambda(\bar{\Lambda})$ SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 4 vs 5 mm | | | 5 vs 6 mm | | |
| $\Lambda K^+$ | 0-10% | 1.859 e-04 | 1.047 e-04 | No | 7.312 e-05 | 0.911 e-05 | Yes |
| | 10-30% | 8.104 e-05 | 2.477 e-05 | Yes | 8.514 e-05 | 1.935 e-05 | Yes |
| | 30-50% | 5.386 e-02 | 6.149 e-02 | No | 6.569 e-04 | 6.850 e-04 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 1.679 e-04 | 0.978 e-04 | No | 7.168 e-05 | 0.964 e-05 | Yes |
| | 10-30% | 9.280 e-04 | 4.156 e-04 | Yes | 2.773 e-05 | 2.045 e-05 | No |
| | 30-50% | 2.969 e-04 | 0.615 e-04 | Yes | 7.119 e-05 | 4.811 e-05 | No |
| $\Lambda K^-$ | 0-10% | 4.973 e-05 | 1.210 e-05 | Yes | 3.881 e-05 | 0.941 e-05 | Yes |
| | 10-30% | 1.648 e-04 | 0.256 e-04 | Yes | 4.941 e-40 | 2.904 e-04 | No |
| | 30-50% | 5.229 e-04 | 3.738 e-04 | No | 8.450 e-04 | 11.134 e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 1.792 e-04 | 2.976 e-04 | No | 3.290 e-05 | 3.245 e-05 | No |
| | 10-30% | 4.729 e-04 | 4.270 e-04 | No | 7.453 e-04 | 7.346 e-04 | No |
| | 30-50% | 8.736 e-04 | 4.348 e-04 | Yes | 2.936 e-04 | 0.474 e-04 | Yes |

**Table 2:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$

Talk about stuff

DCA $\Lambda(\bar{\Lambda})$ 500MeVMaxFit

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 4 vs 5 mm | | | 5 vs 6 mm | | |
| $\Lambda K^+$ | 0-10% | -2.986e-02 | 1.645e-01 | No | 2.006e-03 | 2.090e-03 | Yes |
| | 10-30% | -8.643e-03 | 1.603e-01 | No | 7.363e-04 | 1.788e-03 | No |
| | 30-50% | -5.216e-02 | 5.994e-02 | No | -3.451e-02 | 2.743e-01 | No |
| $\bar{\Lambda}K^-$ | 0-10% | -3.432e-03 | 2.215e-02 | No | -3.703e-02 | 2.614e-01 | No |
| | 10-30% | -9.909e-04 | 1.418e-03 | No | -3.485e-02 | 1.963e-01 | No |
| | 30-50% | 1.579e-03 | 1.199e-03 | No | 3.059e-04 | 1.149e-03 | No |
| $\Lambda K^-$ | 0-10% | -1.968e-02 | 1.487e-01 | No | 2.004e-03 | 1.465e-03 | No |
| | 10-30% | -1.394e-03 | 1.794e-03 | No | -4.588e-04 | 3.685e-04 | No |
| | 30-50% | -1.516e-03 | 1.011e-03 | No | -8.272e-04 | 7.739e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -1.016e-02 | 5.231e-02 | No | 8.251e-04 | 1.290e-03 | No |
| | 10-30% | -1.407e-02 | 5.320e-02 | No | -7.610e-04 | 6.160e-04 | No |
| | 30-50% | -4.230e-03 | 4.236e-03 | Yes | -2.218e-04 | 5.994e-04 | No |

**Table 3:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$

DCA $\Lambda(\bar{\Lambda})$ 500MeVMaxFit SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 4 vs 5 mm | | | 5 vs 6 mm | | |
| $\Lambda K^+$ | 0-10% | -1.200e-04 | 8.688e-05 | No | 2.534e-04 | 1.983e-04 | No |
| | 10-30% | -3.714e-05 | 1.986e-04 | No | 6.806e-02 | 7.932e-02 | No |
| | 30-50% | -5.383e-02 | 6.237e-02 | No | -3.545e-04 | 4.265e-04 | No |
| $\bar{\Lambda}K^-$ | 0-10% | -1.388e-04 | 1.057e-04 | No | 4.615e-05 | 1.693e-05 | Yes |
| | 10-30% | -7.745e-04 | 4.039e-04 | No | -3.957e-05 | 5.462e-04 | No |
| | 30-50% | 1.601e-03 | 1.398e-03 | No | 2.435e-04 | 1.118e-03 | No |
| $\Lambda K^-$ | 0-10% | -6.034e-05 | 1.158e-04 | No | 1.924e-03 | 1.398e-03 | No |
| | 10-30% | 4.468e-05 | 4.450e-05 | No | -4.520e-04 | 3.092e-04 | No |
| | 30-50% | -1.496e-03 | 9.168e-04 | No | -7.476e-04 | 1.012e-03 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -1.777e-04 | 2.999e-04 | No | -2.152e-05 | 1.639e-05 | No |
| | 10-30% | -3.655e-04 | 3.734e-04 | No | -8.857e-04 | 7.247e-04 | No |
| | 30-50% | -1.650e-03 | 1.124e-03 | No | -3.706e-04 | 3.366e-04 | No |

**Table 4:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$

DCA $\Lambda(\bar{\Lambda})$ Daughters

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 3 vs 4 mm | | | 4 vs 5 mm | | |
| $\Lambda K^+$ | 0-10% | -1.077e-02 | 9.329e-03 | Yes | -2.477e-03 | 1.215e-03 | Yes |
| | 10-30% | 4.819e-02 | 3.967e-01 | No | -3.668e-04 | 2.075e-03 | No |
| | 30-50% | 1.002e-03 | 1.848e-03 | Yes | 2.652e-02 | 2.201e-01 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 3.447e-05 | 1.124e-04 | No | -3.323e-03 | 1.714e-02 | No |
| | 10-30% | 3.139e-02 | 1.527e-01 | No | 1.054e-03 | 1.199e-03 | Yes |
| | 30-50% | -8.406e-04 | 1.337e-03 | No | 2.359e-03 | 2.918e-03 | Yes |
| $\Lambda K^-$ | 0-10% | -2.908e-03 | 1.380e-02 | No | -5.250e-04 | 6.241e-04 | No |
| | 10-30% | -2.643e-04 | 2.386e-04 | No | -4.442e-04 | 2.721e-04 | No |
| | 30-50% | -1.134e-02 | 7.345e-03 | Yes | 4.163e-02 | 1.631e-01 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -5.184e-05 | 1.830e-04 | No | 4.305e-05 | 8.483e-05 | No |
| | 10-30% | 6.008e-02 | 2.167e-01 | No | -3.188e-02 | 2.276e-02 | No |
| | 30-50% | 4.338e-04 | 6.151e-04 | No | 1.003e-02 | 1.077e-01 | No |

**Table 5:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

DCA $\Lambda(\bar{\Lambda})$ Daughters SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 3 vs 4 mm | | | 4 vs 5 mm | | |
| $\Lambda K^+$ | 0-10% | 2.617 e-05 | 1.188 e-05 | Yes | 2.349 e-03 | 1.137 e-03 | Yes |
| | 10-30% | 5.998 e-05 | 2.475 e-05 | Yes | 1.743 e-05 | 5.739 e-05 | No |
| | 30-50% | 1.434 e-04 | 0.586 e-04 | Yes | 7.623 e-02 | 3.691 e-01 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | 7.637 e-05 | 1.267 e-05 | Yes | 4.164 e-04 | 5.566 e-04 | No |
| | 10-30% | 6.623 e-04 | 9.620 e-04 | No | 8.930 e-05 | 6.244 e-05 | No |
| | 30-50% | 8.433 e-04 | 12.475 e-04 | No | 2.463 e-04 | 1.298 e-04 | No |
| $\Lambda K^-$ | 0-10% | 1.475 e-04 | 1.052 e-04 | No | 5.810 e-04 | 6.690 e-04 | No |
| | 10-30% | 7.090 e-05 | 2.563 e-05 | Yes | 6.331 e-05 | 6.231 e-05 | No |
| | 30-50% | 3.588 e-04 | 2.293 e-04 | No | 1.727 e-04 | 0.480 e-04 | Yes |
| $\bar{\Lambda}K^+$ | 0-10% | 3.829 e-05 | 1.228 e-05 | Yes | 4.312 e-05 | 4.801 e-05 | No |
| | 10-30% | 2.107 e-04 | 1.323 e-04 | No | 4.100 e-05 | 2.120 e-05 | No |
| | 30-50% | 1.219 e-04 | 0.598 e-04 | Yes | 2.723 e-04 | 1.877 e-04 | No |

**Table 6:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

DCA $\Lambda(\bar{\Lambda})$ Daughters 500MeVMaxFit

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 3 vs 4 mm | | | 4 vs 5 mm | | |
| $\Lambda K^+$ | 0-10% | -1.136e-02 | 9.416e-03 | No | -2.395e-03 | 1.173e-03 | Yes |
| | 10-30% | -2.773e-02 | 1.091e-01 | No | -2.962e-04 | 1.524e-03 | No |
| | 30-50% | 1.057e-03 | 1.241e-03 | No | -7.586e-02 | 3.692e-02 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | -7.829e-03 | 6.509e-03 | Yes | -5.710e-04 | 5.934e-04 | No |
| | 10-30% | 7.443e-04 | 8.673e-04 | No | 1.088e-03 | 1.168e-03 | No |
| | 30-50% | -1.225e-01 | 4.522e-01 | No | 2.278e-03 | 2.851e-03 | Yes |
| $\Lambda K^-$ | 0-10% | -1.527e-04 | 1.883e-04 | No | -5.835e-04 | 6.913e-04 | No |
| | 10-30% | -5.726e-02 | 1.965e-01 | No | -4.351e-02 | 2.713e-01 | No |
| | 30-50% | -1.140e-02 | 7.375e-03 | Yes | 2.958e-02 | 2.476e-01 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -3.676e-04 | 2.325e-04 | No | 6.753e-03 | 8.862e-02 | No |
| | 10-30% | 2.291e-04 | 3.914e-04 | No | -9.527e-04 | 1.492e-03 | No |
| | 30-50% | 1.108e-01 | 6.299e-01 | No | 4.620e-03 | 5.502e-03 | No |

**Table 7:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

DCA $\Lambda(\bar{\Lambda})$ Daughters 500MeVMaxFit SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 3 vs 4 mm | | | 4 vs 5 mm | | |
| $\Lambda K^+$ | 0-10% | -1.170e-02 | 9.437e-03 | No | -2.349e-03 | 1.142e-03 | Yes |
| | 10-30% | -3.522e-04 | 3.863e-04 | No | 1.359e-05 | 3.543e-05 | No |
| | 30-50% | 1.090e-03 | 1.354e-03 | No | -7.623e-02 | 3.708e-02 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | -1.306e-04 | 1.486e-04 | No | -4.771e-04 | 5.081e-04 | No |
| | 10-30% | 7.482e-04 | 8.811e-04 | No | 8.166e-05 | 3.779e-05 | Yes |
| | 30-50% | -7.928e-04 | 1.146e-03 | No | -2.568e-04 | 8.664e-05 | Yes |
| $\Lambda K^-$ | 0-10% | -1.498e-04 | 1.562e-04 | No | -5.849e-04 | 6.665e-04 | No |
| | 10-30% | 1.204e-05 | 2.583e-04 | No | -9.794e-05 | 1.314e-04 | No |
| | 30-50% | -9.314e-03 | 6.614e-03 | No | -1.264e-04 | 8.487e-05 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -4.149e-04 | 3.296e-04 | No | 5.288e-05 | 7.505e-05 | No |
| | 10-30% | 2.293e-04 | 3.396e-04 | No | -8.853e-04 | 1.196e-03 | No |
| | 30-50% | -6.129e-05 | 7.969e-04 | No | 1.735e-04 | 8.784e-05 | No |

**Table 8:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

$\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.9992 vs 0.9993 | | | 0.9993 vs 0.9994 | | |
| $\Lambda K^+$ | 0-10% | 8.394e-05 | 1.017e-04 | Yes | 6.421e-04 | 5.369e-04 | No |
| | 10-30% | 3.348e-02 | 2.067e-02 | No | 7.091e-04 | 9.065e-04 | No |
| | 30-50% | 6.816e-03 | 3.887e-02 | No | -4.748e-04 | 7.771e-04 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | 4.503e-05 | 5.867e-05 | No | 3.207e-04 | 8.431e-05 | Yes |
| | 10-30% | 4.920e-04 | 1.040e-03 | Yes | 3.091e-02 | 6.230e-03 | Yes |
| | 30-50% | 2.214e-03 | 1.278e-03 | No | 4.164e-05 | 2.152e-04 | No |
| $\Lambda K^-$ | 0-10% | -9.043e-05 | 7.387e-05 | Yes | 1.788e-04 | 2.381e-04 | No |
| | 10-30% | -1.058e-04 | 8.066e-05 | Yes | 5.921e-03 | 2.927e-03 | Yes |
| | 30-50% | 5.142e-04 | 1.477e-03 | No | -7.095e-03 | 5.420e-02 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -5.468e-05 | 2.705e-04 | No | 9.797e-05 | 7.333e-05 | Yes |
| | 10-30% | -1.028e-03 | 1.270e-02 | No | -1.389e-02 | 7.163e-02 | No |
| | 30-50% | -3.528e-02 | 1.199e-01 | No | -3.424e-02 | 1.862e-01 | No |

**Table 9:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

$\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.9992 vs 0.9993 | | | 0.9993 vs 0.9994 | | |
| $\Lambda K^+$ | 0-10% | 2.922 e-05 | 0.509 e-05 | Yes | 6.171 e-04 | 4.981 e-04 | No |
| | 10-30% | 3.356 e-02 | 2.061 e-02 | No | 7.164 e-05 | 15.654 e-05 | No |
| | 30-50% | 4.609 e-03 | 5.399 e-03 | No | 1.521 e-04 | 0.269 e-04 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | 1.210 e-05 | 0.552 e-05 | Yes | 4.543 e-05 | 7.800 e-05 | No |
| | 10-30% | 4.859 e-05 | 3.910 e-05 | No | 2.357 e-05 | 1.279 e-05 | No |
| | 30-50% | 2.231 e-03 | 1.295 e-03 | No | 7.357 e-05 | 3.041 e-05 | Yes |
| $\Lambda K^-$ | 0-10% | 5.210 e-05 | 0.521 e-05 | Yes | 1.525 e-04 | 1.447 e-04 | No |
| | 10-30% | 8.230 e-05 | 1.066 e-05 | Yes | 9.685 e-05 | 5.080 e-05 | No |
| | 30-50% | 1.086 e-04 | 0.253 e-04 | Yes | 1.269 e-04 | 0.280 e-04 | Yes |
| $\bar{\Lambda}K^+$ | 0-10% | 4.122 e-05 | 3.995 e-05 | No | 3.550 e-05 | 0.600 e-05 | Yes |
| | 10-30% | 1.043 e-04 | 0.542 e-04 | No | 4.208 e-05 | 1.228 e-05 | Yes |
| | 30-50% | 5.300 e-05 | 2.548 e-05 | Yes | 1.027 e-04 | 0.287 e-04 | Yes |

**Table 10:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

$\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle 500MeVMaxFit

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.9992 vs 0.9993 | | | 0.9993 vs 0.9994 | | |
| $\Lambda K^+$ | 0-10% | 2.564e-05 | 7.148e-05 | No | 5.203e-04 | 3.676e-04 | No |
| | 10-30% | 3.322e-02 | 2.091e-02 | No | 5.850e-04 | 8.976e-04 | No |
| | 30-50% | 4.748e-03 | 5.643e-03 | No | -2.372e-02 | 8.418e-02 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 4.757e-03 | 4.395e-02 | No | 6.412e-04 | 1.649e-03 | No |
| | 10-30% | 5.303e-04 | 1.251e-03 | No | 3.083e-02 | 6.150e-03 | Yes |
| | 30-50% | 1.818e-03 | 1.113e-03 | No | 3.013e-05 | 7.756e-04 | No |
| $\Lambda K^-$ | 0-10% | -7.716e-03 | 4.941e-02 | No | 2.136e-02 | 1.327e-02 | Yes |
| | 10-30% | -2.561e-02 | 9.671e-02 | No | 5.935e-03 | 2.936e-03 | Yes |
| | 30-50% | 1.166e-04 | 5.787e-03 | No | -8.552e-02 | 6.472e-01 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -3.651e-05 | 9.638e-05 | No | 7.891e-03 | 3.091e-02 | No |
| | 10-30% | -9.620e-04 | 1.854e-03 | Yes | 1.019e-04 | 1.806e-04 | No |
| | 30-50% | 1.642e-03 | 1.472e-03 | No | -1.052e-03 | 2.182e-03 | No |

**Table 11:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

$\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle 500MeVMaxFit SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.9992 vs 0.9993 | | | 0.9993 vs 0.9994 | | |
| $\Lambda K^+$ | 0-10% | -1.448e-05 | 9.361e-06 | No | 6.215e-04 | 4.967e-04 | No |
| | 10-30% | 3.355e-02 | 2.063e-02 | No | 5.291e-04 | 7.270e-04 | No |
| | 30-50% | 4.609e-03 | 5.410e-03 | No | 1.360e-04 | 4.949e-05 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | -4.085e-06 | 1.016e-05 | No | 1.211e-05 | 1.145e-05 | No |
| | 10-30% | 1.249e-04 | 1.660e-04 | No | -2.328e-05 | 2.350e-05 | No |
| | 30-50% | 2.214e-03 | 1.301e-03 | No | -3.532e-03 | 4.294e-03 | No |
| $\Lambda K^-$ | 0-10% | 3.409e-05 | 9.589e-06 | Yes | 1.170e-04 | 1.430e-04 | No |
| | 10-30% | 6.537e-05 | 1.967e-05 | Yes | 2.119e-04 | 2.609e-04 | No |
| | 30-50% | -4.434e-05 | 4.608e-05 | No | 9.610e-05 | 5.145e-05 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -3.270e-05 | 5.714e-05 | No | -1.744e-05 | 1.103e-05 | No |
| | 10-30% | -7.203e-05 | 2.042e-05 | Yes | 1.023e-04 | 1.924e-04 | No |
| | 30-50% | 2.030e-03 | 1.831e-03 | No | 7.645e-05 | 5.303e-05 | No |

**Table 12:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.5 vs 1 mm | | | 1 vs 2 mm | | |
| $\Lambda K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -2.562e-02 | 2.256e-01 | No |
| | 10-30% | -8.206e-08 | 6.120e-06 | No | -8.865e-03 | 6.253e-03 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -2.358e-03 | 2.022e-03 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -1.186e-03 | 1.200e-03 | Yes |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | -4.978e-04 | 6.611e-04 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | 6.475e-04 | 2.420e-03 | Yes |
| $\Lambda K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -2.843e-02 | 1.344e-01 | No |
| | 10-30% | 1.759e-07 | 1.059e-06 | No | 6.419e-03 | 5.210e-03 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -7.035e-02 | 2.801e-01 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -4.477e-04 | 3.459e-04 | No |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | 1.255e-03 | 9.275e-04 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -8.232e-04 | 6.959e-04 | No |

**Table 13:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$ SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.5 vs 1 mm | | | 1 vs 2 mm | | |
| $\Lambda K^+$ | 0-10% | 0.000 e-00 | 0.000 e-00 | No | 9.608 e-05 | 6.160 e-05 | No |
| | 10-30% | 4.124 e-08 | 12.733 e-08 | No | 1.295 e-04 | 1.506 e-04 | No |
| | 30-50% | 0.000 e-00 | 0.000 e-00 | No | 2.389 e-03 | 1.970 e-03 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 0.000 e-00 | 0.000 e-00 | No | 5.367 e-05 | 2.099 e-05 | Yes |
| | 10-30% | 0.000 e-00 | 0.000 e-00 | No | 2.513 e-04 | 5.004 e-04 | No |
| | 30-50% | 0.000 e-00 | 0.000 e-00 | No | 4.787 e-04 | 3.569 e-04 | No |
| $\Lambda K^-$ | 0-10% | 0.000 e-00 | 0.000 e-00 | No | 2.188 e-05 | 8.266 e-05 | No |
| | 10-30% | 1.712 e-07 | 9.950 e-07 | No | 6.518 e-03 | 5.362 e-03 | No |
| | 30-50% | 0.000 e-00 | 0.000 e-00 | No | 3.759 e-04 | 9.4144e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 0.000 e-00 | 0.000 e-00 | No | 4.498 e-04 | 3.527 e-04 | No |
| | 10-30% | 0.000 e-00 | 0.000 e-00 | No | 1.046 e-03 | 0.793 e-03 | No |
| | 30-50% | 0.000 e-00 | 0.000 e-00 | No | 8.169 e-04 | 7.310 e-04 | No |

**Table 14:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$ 500MeVMaxFit

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.5 vs 1 mm | | | 1 vs 2 mm | | |
| $\Lambda K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -1.712e-03 | 4.803e-04 | Yes |
| | 10-30% | -3.081e-08 | 9.643e-07 | No | -7.545e-03 | 5.625e-03 | Yes |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -2.433e-03 | 1.467e-03 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -9.956e-04 | 1.046e-03 | No |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | -6.565e-02 | 3.681e-01 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | 2.580e-02 | 1.941e-01 | No |
| $\Lambda K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | 2.999e-03 | 2.975e-03 | No |
| | 10-30% | 1.831e-07 | 1.134e-06 | No | 5.955e-03 | 4.628e-03 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -2.068e-01 | 2.323e+00 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -4.767e-04 | 2.701e-04 | No |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | 1.151e-03 | 1.010e-03 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -1.356e-01 | 1.525e+00 | No |

**Table 15:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$ 500MeVMaxFit SimpleExp

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 0.5 vs 1 mm | | | 1 vs 2 mm | | |
| $\Lambda K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -2.429e-04 | 2.561e-04 | No |
| | 10-30% | -3.554e-08 | 6.097e-08 | No | 1.598e-04 | 7.738e-05 | Yes |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -2.317e-03 | 1.992e-03 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -9.883e-04 | 9.265e-04 | No |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | -2.472e-04 | 5.419e-04 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | 1.227e-03 | 1.328e-03 | No |
| $\Lambda K^-$ | 0-10% | 0.000e+00 | 0.000e+00 | No | 3.677e-03 | 4.028e-03 | No |
| | 10-30% | 1.875e-07 | 1.095e-06 | No | 6.518e-03 | 5.373e-03 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -2.985e-04 | 5.747e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 0.000e+00 | 0.000e+00 | No | -4.252e-04 | 3.414e-04 | No |
| | 10-30% | 0.000e+00 | 0.000e+00 | No | 1.033e-03 | 8.146e-04 | No |
| | 30-50% | 0.000e+00 | 0.000e+00 | No | -7.193e-04 | 7.376e-04 | No |

**Table 16:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 2 vs 3 mm | | | 3 vs 4 mm | | |
| $\Lambda K^+$ | 0-10% | -4.843e-03 | 1.821e-02 | No | -3.108e-03 | 3.879e-03 | No |
| | 10-30% | -1.895e-02 | 7.504e-02 | No | -2.906e-02 | 8.290e-02 | No |
| | 30-50% | -4.478e-02 | 1.099e-01 | No | -1.124e-03 | 2.850e-03 | No |
| $\bar{\Lambda}K^-$ | 0-10% | -5.539e-03 | 2.449e-02 | No | -1.614e-04 | 2.137e-04 | No |
| | 10-30% | -1.357e-04 | 1.308e+02 | No | -3.438e-04 | 1.172e-04 | Yes |
| | 30-50% | 6.511e-03 | 5.171e-03 | Yes | -5.130e-04 | 4.026e-04 | No |
| $\Lambda K^-$ | 0-10% | 3.514e-05 | 5.587e-05 | Yes | -1.187e-04 | 8.452e-05 | No |
| | 10-30% | -8.213e-07 | 7.934e-05 | Yes | -7.553e-03 | 3.721e-02 | No |
| | 30-50% | -4.040e-02 | 2.390e-01 | No | -4.779e-04 | 4.900e-04 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -3.105e-04 | 3.344e-04 | Yes | -7.463e-05 | 8.161e-05 | No |
| | 10-30% | -4.365e-04 | 3.362e-04 | No | -7.773e-03 | 6.077e-02 | No |
| | 30-50% | -3.146e-02 | 2.417e-01 | No | -2.535e-03 | 2.080e-03 | No |

**Table 17:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda}$ SimpleExp)

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 2 vs 3 mm | | | 3 vs 4 mm | | |
| $\Lambda K^+$ | 0-10% | 1.404 e-05 | 0.557 e-05 | Yes | 2.773 e-03 | 4.076 e-03 | No |
| | 10-30% | 5.158 e-05 | 4.849 e-05 | No | 4.003 e-05 | 1.537 e-05 | Yes |
| | 30-50% | 1.948 e-04 | 0.281 e-04 | Yes | 1.293 e-04 | 0.381 e-04 | Yes |
| $\bar{\Lambda}K^-$ | 0-10% | 3.412 e-06 | 31.010 e-06 | No | 1.292 e-05 | 0.737 e-05 | No |
| | 10-30% | 4.179 e-05 | 1.256 e-05 | Yes | 3.348 e-04 | 2.737 e-04 | No |
| | 30-50% | 3.761 e-03 | 2.491 e-03 | No | 5.462 e-04 | 10.737 e-04 | No |
| $\Lambda K^-$ | 0-10% | 3.044 e-05 | 0.577 e-05 | Yes | 5.793 e-05 | 8.022 e-05 | No |
| | 10-30% | 4.823 e-05 | 1.221 e-05 | Yes | 8.026 e-05 | 1.586 e-05 | Yes |
| | 30-50% | 8.278 e-05 | 13.261 e-05 | No | 1.516 e-04 | 0.395 e-04 | Yes |
| $\bar{\Lambda}K^+$ | 0-10% | 1.995 e-05 | 1.807 e-05 | No | 1.645 e-05 | 0.714 e-05 | Yes |
| | 10-30% | 4.629 e-04 | 3.597 e-04 | No | 7.971 e-05 | 1.562 e-05 | Yes |
| | 30-50% | 2.733 e-04 | 0.291 e-04 | Yes | 2.922 e-04 | 3.621 e-04 | No |

**Table 18:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$ 500MeVMaxFit

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 2 vs 3 mm | | | 3 vs 4 mm | | |
| $\Lambda K^+$ | 0-10% | -2.578e-03 | 4.473e-02 | No | -3.254e-03 | 4.068e-03 | No |
| | 10-30% | 5.165e-04 | 7.025e-04 | No | -4.162e-03 | 3.253e-03 | No |
| | 30-50% | 1.504e-02 | 5.178e-03 | Yes | -3.467e-02 | 2.791e-01 | No |
| $\bar{\Lambda}K^-$ | 0-10% | 1.026e-03 | 1.045e-03 | No | -9.881e-03 | 3.186e-02 | No |
| | 10-30% | -1.050e-04 | 2.779e-04 | No | -1.161e-02 | 6.045e-02 | No |
| | 30-50% | 5.187e-03 | 5.521e-03 | No | -3.825e-04 | 1.473e-03 | No |
| $\Lambda K^-$ | 0-10% | -2.588e-03 | 3.666e-02 | No | -5.881e-03 | 6.284e-02 | No |
| | 10-30% | 5.937e-03 | 2.872e-04 | Yes | 2.942e-02 | 1.801e-02 | No |
| | 30-50% | 3.185e-03 | 2.838e-03 | No | -9.919e-03 | 9.801e-03 | No |
| $\bar{\Lambda}K^+$ | 0-10% | -2.047e-04 | 6.630e-04 | No | -3.852e-05 | 9.646e-05 | No |
| | 10-30% | -1.088e-02 | 2.905e-04 | Yes | -3.925e-03 | 3.920e-03 | Yes |
| | 30-50% | 1.456e-05 | 3.774e-04 | No | -2.516e-03 | 2.087e-03 | No |

**Table 19:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda}$ 500MeVMaxFit SimpleExp)

| Pair Type | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|
| | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | 2 vs 3 mm | | | 3 vs 4 mm | | |
| $\Lambda K^+$ | 0-10% | 7.991e-02 | 3.641e-01 | No | -2.774e-03 | 3.759e-03 | No |
| | 10-30% | -2.559e-05 | 5.097e-05 | No | -4.152e-03 | 3.267e-03 | No |
| | 30-50% | 1.461e-02 | 5.067e-03 | Yes | -8.144e-05 | 3.055e-04 | No |
| $\bar{\Lambda}K^-$ | 0-10% | -9.069e-06 | 1.070e-05 | No | -1.506e-04 | 2.900e-04 | No |
| | 10-30% | 1.485e-05 | 2.273e-05 | No | -2.281e-04 | 2.219e-04 | No |
| | 30-50% | 3.830e-03 | 2.477e-03 | No | -2.258e-04 | 8.241e-04 | No |
| $\Lambda K^-$ | 0-10% | -4.017e-05 | 5.473e-05 | No | -3.418e-05 | 5.661e-05 | No |
| | 10-30% | 6.474e-05 | 7.444e-05 | No | 4.487e-04 | 6.332e-04 | No |
| | 30-50% | 3.344e-03 | 3.224e-03 | No | 9.751e-05 | 7.055e-05 | No |
| $\bar{\Lambda}K^+$ | 0-10% | 2.080e-05 | 1.035e-05 | Yes | -1.947e-05 | 9.814e-05 | No |
| | 10-30% | -4.528e-04 | 3.642e-04 | No | 6.138e-05 | 2.809e-05 | Yes |
| | 30-50% | 2.643e-04 | 5.272e-05 | Yes | -2.107e-03 | 1.815e-03 | No |

**Table 20:** $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$

| Pair Type | Daughter | Track | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | | | 7 vs 8 mm | | | 8 vs 9 mm | | |
| $\Lambda K^+$ | p($\Lambda$) | $K^+$ | 0-10% | -3.686e-06 | 1.868e-06 | Yes | -2.810e-06 | 2.876e-06 | Yes |
| | | | 10-30% | 1.913e-06 | 3.456e-06 | Yes | 4.146e-06 | 2.760e-06 | No |
| | | | 30-50% | 2.437e-05 | 2.000e-05 | Yes | 4.171e-06 | 2.107e-05 | Yes |
| $\bar{\Lambda}K^-$ | $\bar{p}^-(\bar{\Lambda})$ | $K^-$ | 0-10% | 7.353e-07 | 2.091e-06 | Yes | -3.354e-05 | 6.745e-06 | Yes |
| | | | 10-30% | -2.786e-05 | 7.575e-06 | Yes | 8.456e-07 | 6.874e-06 | Yes |
| | | | 30-50% | 3.246e-03 | 2.576e-04 | Yes | 2.117e-05 | 2.576e-05 | Yes |
| $\Lambda K^-$ | $\pi^-(\Lambda)$ | $K^-$ | 0-10% | -2.628e-05 | 3.735e-06 | Yes | 4.464e-06 | 3.426e-06 | Yes |
| | | | 10-30% | -8.931e-08 | 7.490e-06 | Yes | 4.327e-06 | 8.289e-06 | Yes |
| | | | 30-50% | -8.489e-06 | 1.854e-05 | No | 6.277e-05 | 2.490e-05 | Yes |
| $\bar{\Lambda}K^+$ | $\pi^+(\bar{\Lambda})$ | $K^+$ | 0-10% | -4.788e-06 | 2.222e-06 | Yes | -3.779e-06 | 1.987e-06 | Yes |
| | | | 10-30% | 6.776e-06 | 6.238e-06 | Yes | 1.142e-05 | 3.740e-06 | Yes |
| | | | 30-50% | 5.680e-04 | 1.505e-04 | Yes | 2.448e-06 | 2.452e-05 | Yes |

**Table 21:** $\Lambda(\bar{\Lambda})K^0_S$ Analyses: Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$

Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$ SimpleExp

| Pair Type | Daughter | Track | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | | | 7 vs 8 mm | | | 8 vs 9 mm | | |
| $\Lambda K^+$ | p($\Lambda$) | $K^+$ | 0-10% | 1.292 e-06 | 0.071 e-06 | Yes | 4.293 e-06 | 0.467 e-06 | Yes |
| | | | 10-30% | 1.273 e-06 | 0.918 e-06 | No | 2.789 e-06 | 6.481 e-06 | No |
| | | | 30-50% | 5.756 e-06 | 0.884 e-06 | Yes | 1.039 e-05 | 0.366 e-05 | Yes |
| $\bar{\Lambda}K^-$ | $\bar{p}^-(\bar{\Lambda})$ | $K^-$ | 0-10% | 2.174 e-06 | 0.382 e-06 | Yes | 7.280 e-07 | 0.192 e-07 | Yes |
| | | | 10-30% | 4.654 e-06 | 0.264 e-06 | Yes | 4.714 e-06 | 0.790 e-06 | Yes |
| | | | 30-50% | 3.859 e-03 | 0.282 e-03 | Yes | 1.617 e-05 | 0.460 e-05 | Yes |
| $\Lambda K^-$ | $\pi^-(\Lambda)$ | $K^-$ | 0-10% | 4.837 e-06 | 0.126 e-06 | Yes | 5.328 e-06 | 0.606 e-06 | Yes |
| | | | 10-30% | 4.573 e-06 | 1.194 e-06 | Yes | 5.761 e-06 | 1.170 e-06 | Yes |
| | | | 30-50% | 7.689 e-06 | 1.176 e-06 | Yes | 7.790 e-06 | 1.120 e-06 | Yes |
| $\bar{\Lambda}K^+$ | $\pi^+(\bar{\Lambda})$ | $K^+$ | 0-10% | 1.913 e-06 | 1.201 e+00 | No | 1.546 e-06 | 0.073 e-06 | Yes |
| | | | 10-30% | 3.534 e-06 | 1.269 e-06 | Yes | 2.443 e-07 | 1.002 e+00 | No |
| | | | 30-50% | 6.155 e-04 | 1.712 e-04 | Yes | 7.848 e-06 | 0.108 e-06 | Yes |

**Table 22:** $\Lambda(\bar{\Lambda})K^0_S$ Analyses: Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$

Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$ 500MeVMaxFit

| Pair Type | Daughter | Track | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | | | 7 vs 8 mm | | | 8 vs 9 mm | | |
| $\Lambda K^+$ | p($\Lambda$) | $K^+$ | 0-10% | -1.028e-03 | 1.913e-04 | Yes | -8.595e-04 | 1.950e-04 | Yes |
| | | | 10-30% | -1.165e-04 | 2.697e-05 | Yes | -3.465e-05 | 2.604e-05 | Yes |
| | | | 30-50% | -1.402e-04 | 1.330e+01 | No | 3.312e-05 | 8.428e-05 | No |
| $\bar{\Lambda}K^-$ | $\bar{p}^-(\bar{\Lambda})$ | $K^-$ | 0-10% | -1.186e-03 | 2.039e-04 | Yes | -1.314e-03 | 2.545e-04 | Yes |
| | | | 10-30% | -2.705e-05 | 2.832e-05 | Yes | -5.341e-05 | 2.923e-05 | Yes |
| | | | 30-50% | 1.314e-03 | 1.515e-04 | Yes | 1.459e-04 | 8.739e-05 | No |
| $\Lambda K^-$ | $\pi^-(\Lambda)$ | $K^-$ | 0-10% | -5.785e-05 | 1.394e-05 | Yes | -4.428e-05 | 1.198e-05 | Yes |
| | | | 10-30% | -4.576e-05 | 5.522e-05 | No | -5.990e-05 | 1.099e-05 | Yes |
| | | | 30-50% | 4.274e-03 | 4.150e-03 | No | 6.659e-05 | 6.463e-05 | No |
| $\bar{\Lambda}K^+$ | $\pi^+(\bar{\Lambda})$ | $K^+$ | 0-10% | -2.609e-04 | 1.122e-04 | Yes | -4.269e-05 | 3.663e-05 | No |
| | | | 10-30% | -2.366e-04 | 1.483e-04 | Yes | -7.622e-05 | 1.096e-04 | No |
| | | | 30-50% | 2.265e-03 | 9.486e-04 | Yes | 2.629e-04 | 2.138e-04 | No |

**Table 23:** $\Lambda(\bar{\Lambda})K^0_S$ Analyses: Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$

Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$ 500MeVMaxFit SimpleExp

| Pair Type | Daughter | Track | Centrality | Fit Amplitudes | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Amplitude | Error | Sig | Amplitude | Error | Sig |
| | | | | 7 vs 8 mm | | | 8 vs 9 mm | | |
| $\Lambda K^+$ | p($\Lambda$) | $K^+$ | 0-10% | 1.310e-06 | 1.696e-07 | Yes | 4.374e-06 | 2.246e-07 | Yes |
| | | | 10-30% | 2.084e-06 | 4.698e-07 | Yes | 4.124e-06 | 4.593e-06 | No |
| | | | 30-50% | -1.186e-03 | 9.739e-04 | No | 3.110e-05 | 3.395e-05 | No |
| $\bar{\Lambda}K^-$ | $\bar{p}^-(\bar{\Lambda})$ | $K^-$ | 0-10% | 2.057e-06 | 1.499e-07 | Yes | 3.829e-06 | 1.327e-07 | Yes |
| | | | 10-30% | 7.002e-06 | 6.292e-06 | No | 4.608e-06 | 4.256e-06 | No |
| | | | 30-50% | 4.608e-06 | 4.256e-06 | No | 9.199e-05 | 7.119e-05 | No |
| $\Lambda K^-$ | $\pi^-(\Lambda)$ | $K^-$ | 0-10% | 4.686e-06 | 3.491e-07 | Yes | 2.311e-06 | 5.498e-07 | Yes |
| | | | 10-30% | 5.411e-06 | 7.471e-07 | Yes | 7.344e-06 | 5.583e-07 | Yes |
| | | | 30-50% | 2.045e-04 | 1.593e-04 | No | 1.570e-04 | 3.330e-04 | No |
| $\bar{\Lambda}K^+$ | $\pi^+(\bar{\Lambda})$ | $K^+$ | 0-10% | -3.063e-04 | 1.137e-04 | Yes | -6.134e-05 | 6.307e-05 | No |
| | | | 10-30% | 6.019e-06 | 6.879e-07 | Yes | 1.473e-06 | 1.292e-06 | No |
| | | | 30-50% | 1.773e-04 | 6.857e-05 | Yes | 1.701e-04 | 1.120e-04 | No |

**Table 24:** $\Lambda(\bar{\Lambda})K^0_S$ Analyses: Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$