

DCA $\Lambda(\bar{\Lambda})$							
Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		4 vs 5 mm			5 vs 6 mm		
ΛK_S^0	0-10%	2.709 e-04	1.940 e-04	No	8.225 e-03	5.836 e-03	No
	10-30%	6.759 e-04	5.899 e-04	No	4.508 e-03	31.591 e-03	No
	30-50%	9.913 e-02	42.821 e-02	No	1.884 e-01	0.700 e-02	Yes
$\bar{\Lambda} K_S^0$	0-10%	2.846 e-04	4.418 e-04	No	8.108 e-05	10.711 e-05	No
	10-30%	3.324 e-04	14.472 e-04	No	1.329 e-02	4.550 e-02	No
	30-50%	2.783 e-03	2.179 e-03	No	1.510 e-02	3.137 e-02	No

Table 1: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA $\Lambda(\bar{\Lambda})$ caption

DCA $\Lambda(\bar{\Lambda})$					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
4 vs 5 mm					
ΛK_S^0	0-10%	$2.709 \pm 1.940 \text{ e-04}$	$1.531 \pm 4.020 \text{ e+00}$	$-1.004 \pm 3.031 \text{ e-04}$	No
	10-30%	$6.759 \pm 5.899 \text{ e-04}$	$3.834 \pm 4.817 \text{ e+00}$	$1.195 \pm 1.309 \text{ e-04}$	No
	30-50%	$9.913 \pm 42.821 \text{ e-02}$	$9.782 \pm 43.696 \text{ e-03}$	$9.844 \pm 42.816 \text{ e-02}$	No
$\bar{\Lambda} K_S^0$	0-10%	$2.846 \pm 4.418 \text{ e-04}$	$8.631 \pm 7.200 \text{ e+00}$	$-6.912 \pm 2.311 \text{ e-05}$	No
	10-30%	$3.324 \pm 14.472 \text{ e-04}$	$9.543 \pm 84.997 \text{ e-01}$	$2.489 \pm 17.182 \text{ e-04}$	No
	30-50%	$2.783 \pm 2.179 \text{ e-03}$	$6.009 \pm 4.843 \text{ e+00}$	$4.436 \pm 1.804 \text{ e-04}$	No
5 vs 6 mm					
ΛK_S^0	0-10%	$8.225 \pm 5.836 \text{ e-03}$	$4.683 \pm 2.083 \text{ e+01}$	$-7.929 \pm 1.566 \text{ e-05}$	No
	10-30%	$4.508 \pm 31.591 \text{ e-03}$	$3.350 \pm 23.967 \text{ e-02}$	$4.499 \pm 31.591 \text{ e-03}$	No
	30-50%	$1.884 \pm 0.700 \text{ e-01}$	$1.265 \pm 0.289 \text{ e+02}$	$-1.571 \pm 0.751 \text{ e-04}$	Yes
$\bar{\Lambda} K_S^0$	0-10%	$8.108 \pm 10.711 \text{ e-05}$	$2.062 \pm 5.974 \text{ e+00}$	$-8.981 \pm 8.008 \text{ e-05}$	No
	10-30%	$1.329 \pm 4.550 \text{ e-02}$	$3.045 \pm 11.469 \text{ e-02}$	$1.311 \pm 4.551 \text{ e-02}$	No
	30-50%	$1.510 \pm 3.137 \text{ e-02}$	$7.268 \pm 16.222 \text{ e-02}$	$1.436 \pm 3.145 \text{ e-02}$	No

Table 2: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA $\Lambda(\bar{\Lambda})$ caption

0.1 Systematic Errors: ΛK_S^0

Talk about stuff

DCA K_S^0							
Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		2 vs 3 mm			3 vs 4 mm		
ΛK_S^0	0-10%	5.098 e-04	75.946 e-04	No	1.734 e-04	2.179 e-04	No
	10-30%	4.222 e-03	0.551 e-03	Yes	2.562 e-03	2.121 e-03	No
	30-50%	8.888 e-03	4.572 e-03	No	1.701 e-02	0.612 e-03	Yes
$\bar{\Lambda} K_S^0$	0-10%	6.442 e-04	1.336 e-04	Yes	5.795 e-03	24.211 e-03	No
	10-30%	6.376 e-04	2.764 e-04	Yes	2.128 e-03	0.434 e-03	Yes
	30-50%	2.412 e-03	0.906 e-03	Yes	1.175 e-01	5.116 e-01	No

Table 3: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA K_S^0 caption

DCA K_S^0					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
ΛK_S^0	0-10%	$5.098 \pm 75.946 \text{ e-04}$	$6.804 \pm 160.113 \text{ e-01}$	$3.403 \pm 81.962 \text{ e-04}$	No
	10-30%	$4.222 \pm 0.551 \text{ e-03}$	$9.473 \pm 4.523 \text{ e-02}$	$4.314 \pm 0.551 \text{ e-03}$	Yes
	30-50%	$8.888 \pm 4.572 \text{ e-03}$	$1.684 \pm 0.552 \text{ e+01}$	$-1.820 \pm 0.951 \text{ e-04}$	No
$\bar{\Lambda} K_S^0$	0-10%	$6.442 \pm 1.336 \text{ e-04}$	$2.282 \pm 1.274 \text{ e+00}$	$3.984 \pm 1.133 \text{ e-04}$	Yes
	10-30%	$6.376 \pm 2.764 \text{ e-04}$	$2.416 \pm 3.012 \text{ e+00}$	$1.405 \pm 23.358 \text{ e-05}$	Yes
	30-50%	$2.418 \pm 0.906 \text{ e-03}$	$3.560 \pm 1.948 \text{ e+00}$	$4.452 \pm 2.562 \text{ e-04}$	Yes
3 vs 4 mm					
ΛK_S^0	0-10%	$1.734 \pm 2.179 \text{ e-04}$	$5.946 \pm 6.215 \text{ e+00}$	$-2.434 \pm 2.157 \text{ e-05}$	No
	10-30%	$2.562 \pm 2.121 \text{ e-03}$	$2.130 \pm 0.965 \text{ e+01}$	$7.165 \pm 3.132 \text{ e-05}$	No
	30-50%	$1.701 \pm 0.612 \text{ e-02}$	$3.185 \pm 0.741 \text{ e+01}$	$1.334 \pm 0.703 \text{ e-04}$	Yes
$\bar{\Lambda} K_S^0$	0-10%	$5.795 \pm 24.211 \text{ e-03}$	$3.631 \pm 16.060 \text{ e-02}$	$5.785 \pm 24.219 \text{ e-03}$	No
	10-30%	$2.128 \pm 0.434 \text{ e-03}$	$1.873 \pm 0.826 \text{ e-01}$	$1.876 \pm 0.434 \text{ e-03}$	Yes
	30-50%	$1.175 \pm 5.116 \text{ e-01}$	$-2.700 \pm 10.925 \text{ e-03}$	$1.172 \pm 5.115 \text{ e-01}$	No

Table 4: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA K_S^0 caption

DCA $\Lambda(\bar{\Lambda})$ Daughters							
Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		3 vs 4 mm			4 vs 5 mm		
ΛK_S^0	0-10%	2.521 e-04	2.924 e-04	No	1.855 e-04	2.245 e-04	No
	10-30%	2.065 e-02	22.509 e-02	No	2.885 e-04	2.460 e-04	No
	30-50%	9.063 e-02	8.577 e-02	No	8.807 e-02	22.461 e-02	No
$\bar{\Lambda} K_S^0$	0-10%	1.291 e-04	3.440 e-04	No	1.180 e-05	12.412 e-05	No
	10-30%	9.701 e-03	9.174 e-03	No	4.654 e-02	32.002 e-02	No
	30-50%	1.187 e-02	1.435 e-02	No	1.513 e-01	1.729 e-01	No

Table 5: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

DCA $\Lambda(\Lambda)$ Daughters					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
3 vs 4 mm					
ΛK_S^0	0-10%	$2.521 \pm 2.924 \text{ e-04}$	$5.476 \pm 10.288 \text{ e-01}$	$2.294 \pm 3.016 \text{ e-04}$	No
	10-30%	$2.065 \pm 22.509 \text{ e-02}$	$4.900 \pm 55.720 \text{ e-03}$	$2.075 \pm 22.508 \text{ e-02}$	No
	30-50%	$9.063 \pm 8.577 \text{ e-02}$	$1.637 \pm 1.260 \text{ e+02}$	$-2.718 \pm 0.960 \text{ e-04}$	No
$\bar{\Lambda} K_S^0$	0-10%	$1.291 \pm 3.440 \text{ e-04}$	$7.412 \pm 10.297 \text{ e+00}$	$-3.342 \pm 2.448 \text{ e-05}$	No
	10-30%	$9.701 \pm 9.174 \text{ e-03}$	$4.055 \pm 2.013 \text{ e+01}$	$1.761 \pm 0.431 \text{ e-04}$	No
	30-50%	$1.187 \pm 1.435 \text{ e-02}$	$3.199 \pm 2.137 \text{ e+01}$	$8.976 \pm 10.005 \text{ e-05}$	No
4 vs 5 mm					
ΛK_S^0	0-10%	$1.855 \pm 2.245 \text{ e-04}$	$6.895 \pm 6.644 \text{ e+00}$	$2.252 \pm 20.175 \text{ e-06}$	No
	10-30%	$2.885 \pm 2.460 \text{ e-04}$	$2.843 \pm 3.397 \text{ e+00}$	$1.036 \pm 0.950 \text{ e-04}$	No
	30-50%	$8.807 \pm 22.461 \text{ e-02}$	$1.050 \pm 2.813 \text{ e-02}$	$-8.770 \pm 22.458 \text{ e-02}$	No
$\bar{\Lambda} K_S^0$	0-10%	$1.180 \pm 12.412 \text{ e-05}$	$1.426 \pm 23.630 \text{ e+00}$	$3.498 \pm 10.006 \text{ e-05}$	No
	10-30%	$4.654 \pm 32.002 \text{ e-02}$	$3.753 \pm 27.490 \text{ e-03}$	$4.623 \pm 32.003 \text{ e-02}$	No
	30-50%	$1.513 \pm 1.729 \text{ e-01}$	$1.438 \pm 0.900 \text{ e+02}$	$-2.817 \pm 0.793 \text{ e-04}$	No

Table 6: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

DCA K_S^0 Daughters							
Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		2 vs 3 mm			3 vs 4 mm		
ΛK_S^0	0-10%	1.776 e-03	1.570 e-03	No	2.483 e-03	2.563 e-03	No
	10-30%	1.195 e-01	0.603 e-01	No	1.214 e-03	1.265 e-03	No
	30-50%	1.394 e-01	0.548 e-01	Yes	1.196 e-03	1.962 e-03	No
$\bar{\Lambda} K_S^0$	0-10%	2.234 e-03	1.729 e-03	No	2.695 e-03	5.304 e+02	No
	10-30%	5.343 e-04	5.054 e-04	No	1.431 e-02	10.457 e-02	No
	30-50%	2.720 e-02	1.860 e-02	No	3.780 e-03	2.364 e-03	No

Table 7: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA K_S^0 Daughters

DCA K_S^0 Daughters

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
ΛK_S^0	0-10%	$1.776 \pm 1.570 \text{ e-03}$	$1.444 \pm 0.851 \text{ e+01}$	$-2.631 \pm 2.560 \text{ e-05}$	No
	10-30%	$1.195 \pm 0.603 \text{ e-01}$	$2.959 \pm 1.740 \text{ e+02}$	$1.370 \pm 0.461 \text{ e-04}$	No
	30-50%	$1.394 \pm 0.548 \text{ e-01}$	$8.502 \pm 2.151 \text{ e+01}$	$3.684 \pm 10.441 \text{ e-05}$	Yes
$\bar{\Lambda} K_S^0$	0-10%	$2.234 \pm 1.729 \text{ e-03}$	$1.382 \pm 0.742 \text{ e+01}$	$1.025 \pm 0.273 \text{ e-04}$	No
	10-30%	$5.343 \pm 5.054 \text{ e-04}$	$3.826 \pm 4.224 \text{ e+00}$	$3.346 \pm 1.056 \text{ e-04}$	No
	30-50%	$2.720 \pm 1.860 \text{ e-02}$	$2.999 \pm 1.294 \text{ e+01}$	$5.355 \pm 10.939 \text{ e-05}$	No
3 vs 4 mm					
ΛK_S^0	0-10%	$2.483 \pm 2.563 \text{ e-03}$	$2.896 \pm 1.703 \text{ e+01}$	$-1.024 \pm 1.820 \text{ e-05}$	No
	10-30%	$1.214 \pm 1.265 \text{ e-03}$	$8.316 \pm 6.912 \text{ e+00}$	$3.880 \pm 5.009 \text{ e-05}$	No
	30-50%	$1.196 \pm 1.962 \text{ e-03}$	$5.262 \pm 10.152 \text{ e+00}$	$2.306 \pm 2.127 \text{ e-04}$	No
$\bar{\Lambda} K_S^0$	0-10%	$2.695 \text{ e-03} \pm 5.304 \text{ e+02}$	$4.558 \pm 0.100 \text{ e+01}$	$-5.972 \text{ e-05} \pm 5.304 \text{ e+02}$	No
	10-30%	$1.431 \pm 10.457 \text{ e-02}$	$1.397 \pm 10.705 \text{ e-02}$	$1.417 \pm 10.457 \text{ e-02}$	No
	30-50%	$3.780 \pm 2.364 \text{ e-03}$	$6.838 \pm 3.823 \text{ e+00}$	$5.087 \pm 1.398 \text{ e-04}$	No

Table 8: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA K_S^0 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		
ΛK_S^0	0-10%	4.736 e-03	2.311 e-03	Yes	1.700 e-02	7.601 e-02	No
	10-30%	5.172 e-03	2.253 e-03	Yes	1.154 e-04	1.586 e+02	No
	30-50%	3.862 e-03	1.806 e-03	Yes	5.883 e-03	1.638 e-03	Yes
$\bar{\Lambda} K_S^0$	0-10%	1.141 e-03	1.203 e-03	No	1.612 e-03	18.748 e-03	No
	10-30%	3.518 e-04	3.120 e-04	No	9.358 e-03	66.281 e-03	No
	30-50%	2.669 e-03	1.312 e-03	Yes	4.334 e-04	97.026 e-04	No

Table 9: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

$\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
0.9992 vs 0.9993					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
0.9993 vs 0.9994					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No

Table 10: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

K_S^0 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		
ΛK_S^0	0-10%	3.192 e-04	4.037 e-04	No	7.957 e-04	5.050 e-04	No
	10-30%	2.184 e-02	13.545 e-02	No	5.937 e-03	44.836 e-03	No
	30-50%	3.489 e-04	3.645 e-04	No	1.182 e-01	2.429 e-01	No
$\bar{\Lambda} K_S^0$	0-10%	5.974 e-04	4.142 e-04	No	6.145 e-04	4.107 e-04	No
	10-30%	4.988 e-03	2.080 e-03	Yes	1.610 e-03	1.412 e-03	No
	30-50%	5.806 e-02	12.703 e-02	No	9.421 e-04	4.946 e-04	No

Table 11: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: K_S^0 Cosine of Pointing Angle

K _S ⁰ Cosine of Pointing Angle					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
0.9992 vs 0.9993					
ΛK _S ⁰	0-10%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	10-30%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	30-50%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
Λ̄K _S ⁰	0-10%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	10-30%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	30-50%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
0.9993 vs 0.9994					
ΛK _S ⁰	0-10%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	10-30%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	30-50%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
Λ̄K _S ⁰	0-10%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	10-30%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No
	30-50%	0.000 ± 0.000 e-00	0.000 ± 0.000 e+00	0.000 ± 0.000 e-00	No

Table 12: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: K_S^0 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		
ΛK_S^0	0-10%	0.000 e-00	0.000 e-00	No	1.197 e-03	0.987 e-03	No
	10-30%	1.567 e-07	18.945 e-07	No	8.125 e-04	12.816 e-04	No
	30-50%	0.000 e-00	0.000 e-00	No	5.361 e-03	6.412 e-03	No
$\bar{\Lambda} K_S^0$	0-10%	0.000 e-00	0.000 e-00	No	2.369 e-04	4.189 e-04	No
	10-30%	0.000 e-00	0.000 e-00	No	6.808 e-02	53.271 e-02	No
	30-50%	0.000 e-00	0.000 e-00	No	5.296 e-03	2.603 e-03	Yes

Table 13: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
0.5 vs 1 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
1 vs 2 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No

Table 14: $\Lambda(\bar{\Lambda})K_S^0$ 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		
ΛK_S^0	0-10%	8.432 e-04	9.717 e-04	No	7.591 e-05	11.555 e-05	No
	10-30%	1.287 e-04	1.797 e-04	No	3.352 e-04	3.326 e-04	No
	30-50%	1.345 e-02	0.950 e-02	No	6.001 e-03	4.808 e-03	No
$\bar{\Lambda} K_S^0$	0-10%	1.051 e-04	0.945 e-04	No	7.565 e-05	9.354 e-05	No
	10-30%	2.201 e-02	1.242 e-02	No	2.012 e-04	19.216 e-04	No
	30-50%	1.652 e-02	23.238 e-02	No	1.348 e-01	8.053 e-01	No

Table 15: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
3 vs 4 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No

Table 16: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of $\pi^- (\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$ DCA to Primary Vertex of π^+ Daughter of K_S^0

Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		2 vs 3 mm			3 vs 4 mm		
ΛK_S^0	0-10%	6.389 e-03	26.374 e-03	No	4.199 e-02	6.327 e-02	No
	10-30%	4.661 e-02	21.838 e-02	No	2.701 e-02	9.611 e-02	No
	30-50%	1.780 e-03	2.167 e-03	No	9.225 e-02	5.533 e-02	No
$\bar{\Lambda} K_S^0$	0-10%	4.010 e-04	4.972 e-04	No	1.898 e-02	8.318 e-02	No
	10-30%	2.010 e-04	2.337 e-04	No	2.234 e-02	10.938 e-01	No
	30-50%	5.327 e-02	14.932 e-02	No	3.745 e-04	13.736 e-04	No

Table 17: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of π^+ Daughter of K_S^0

DCA to Primary Vertex of π^+ Daughter of K_S^0					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
3 vs 4 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No

Table 18: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of π^+ Daughter of K_S^0

DCA to Primary Vertex of π^- Daughter of K_S^0							
Pair Type	Centrality	Fit Amplitudes					
		Amplitude	Error	Sig	Amplitude	Error	Sig
		2 vs 3 mm			3 vs 4 mm		
ΛK_S^0	0-10%	2.544 e-02	10.117 e-02	No	3.537 e-04	3.539 e-04	No
	10-30%	3.565 e-04	1.986 e-04	No	1.305 e-03	2.713 e-03	No
	30-50%	4.448 e-20	2.572 e-02	No	1.089 e-01	3.232 e-01	No
$\bar{\Lambda} K_S^0$	0-10%	7.581 e-04	4.856 e-04	No	9.319 e-02	25.359 e-02	No
	10-30%	2.354 e-02	9.667 e-02	No	6.463 e-04	2.477 e-04	Yes
	30-50%	1.611 e-01	5.981 e-01	No	6.695 e-02	26.499 e-02	No

Table 19: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of π^- Daughter of K_S^0

DCA to Primary Vertex of π^- Daughter of K_S^0

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
3 vs 4 mm					
ΛK_S^0	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
$\bar{\Lambda} K_S^0$	0-10%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	10-30%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No
	30-50%	$0.000 \pm 0.000 \text{ e-00}$	$0.000 \pm 0.000 \text{ e+00}$	$0.000 \pm 0.000 \text{ e-00}$	No

Table 20: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: DCA to Primary Vertex of π^- Daughter of K_S^0

Avgerage Separation of Like-Charge Daughters

Pair Type	Daughters		Centrality	Fit Amplitude					
				Amplitude	Error	Sig	Amplitude	Error	Sig
				5.0 vs 6.0 cm			6.0 vs 7.0 cm		
ΛK_S^0	$p(\Lambda)$	$\pi^+(K_S^0)$	0-10%	1.411 e-05	0.047 e-05	Yes	2.585 e-06	8.713 e-06	No
			10-30%	7.573 e-04	1.805 e-04	Yes	1.845 e-05	1.834 e-05	No
			30-50%	4.158 e-04	0.571 e-04	Yes	7.731 e-04	1.416 e-04	Yes
ΛK_S^0	$\pi^-(\Lambda)$	$\pi^-(K_S^0)$	0-10%	1.353 e-05	0.612 e-05	Yes	5.059 e-06	1.011 e-06	Yes
			10-30%	2.665 e-06	8.444 e-06	No	1.157 e-05	1.549 e-05	No
			30-50%	4.096 e-04	0.752 e-04	Yes	9.083 e-04	0.458 e-04	Yes
$\bar{\Lambda} K_S^0$	$\pi^+(\bar{\Lambda})$	$\pi^+(K_S^0)$	0-10%	2.020 e-05	0.599 e-05	Yes	1.200 e-06	3.157 e-06	No
			10-30%	7.702 e-04	7.002 e-04	No	2.172 e-04	1.205 e-04	No
			30-50%	9.212 e-07	424.744 e-07	No	6.443 e-04	0.831 e-04	Yes
$\bar{\Lambda} K_S^0$	$\bar{p}(\bar{\Lambda})$	$\pi^-(K_S^0)$	0-10%	7.048 e-05	0.670 e-05	Yes	1.671 e-05	0.488 e-05	Yes
			10-30%	2.769 e-05	0.053 e-05	Yes	1.010 e-03	0.367 e-03	Yes
			30-50%	1.414 e-03	0.113 e-04	Yes	2.984 e-05	5.983 e-05	No

Table 21: $\Lambda(\bar{\Lambda})K_S^0$ Analyses: Avgerage Separation of Positive Daughters