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

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		4 vs 5 mm			5 vs 6 mm			
	0-10%	2.709e-04	1.940e-04	No	-8.225e-03	5.836e-03	Yes	
$\Lambda K_S^0$	10-30%	-6.759e-04	5.899e-04	No	-4.508e-03	3.159e-02	No	
	30-50%	-9.913e-02	4.282e-01	No	-1.884e-01	7.004e-02	Yes	
	0-10%	2.846e-04	4.418e-04	Yes	8.108e-05	1.071e-04	No	
$\bar{\Lambda} K_S^0$	10-30%	-3.324e-04	1.447e-03	No	-1.329e-02	4.550e-02	No	
	30-50%	-2.783e-03	2.179e-03	Yes	-1.510e-02	3.137e-02	No	

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

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

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		4 vs 5 mm			5 vs 6 mm			
	0-10%	2.744 e-04	2.494 e-04	No	9.579 e-05	4.939 e-05	No	
$\Lambda K_S^0$	10-30%	1.227 e-03	1.489 e-03	No	8.714 e-05	3.236 e-05	Yes	
	30-50%	1.269 e-03	1.740 e-03	No	1.878 e-01	0.699 e-01	Yes	
	0-10%	7.551 e-05	5.648 e-05	No	6.570 e-05	1.593 e-05	Yes	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	6.478 e-05	4.222 e-05	No	3.222 e-04	6.697 e-04	No	
	30-50%	2.055 e-02	2.563 e-02	No	3.299 e-03	2.714 e-03	No	

**Table 2:**  $\Lambda(\bar{\Lambda})K^0_{S}$  Analyses:  $\overline{DCA}$   $\Lambda(\bar{\Lambda})$  caption

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

Deliti(ii) bookse vivani it									
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		4 vs 5 mm			5 vs 6 mm				
	0-10%	8.210e-04	4.776e-03	No	-7.614e-03	5.701e-03	No		
$\Lambda K_S^0$	10-30%	-8.845e-04	6.547e-04	No	-4.438e-03	4.700e-03	No		
	30-50%	-5.078e-02	3.550e-02	No	-1.888e-01	7.061e-02	Yes		
	0-10%	3.951e-04	3.069e-04	No	-3.571e-02	2.149e-02	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	3.360e-04	1.552e-03	No	-3.442e-04	4.840e-04	No		
	30-50%	-1.989e-02	2.590e-02	No	-8.031e-03	8.382e-03	No		

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

# **0.1** Systematic Errors: $\Lambda \mathbf{K}_{S}^{0}$

Talk about stuff

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

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		4 vs 5 mm			5 vs 6 mm			
	0-10%	2.616e-04	2.840e-04	No	-5.282e-03	4.887e-03	No	
$\Lambda K_S^0$	10-30%	-1.236e-03	1.568e-03	No	6.110e-05	1.457e-04	No	
	30-50%	-4.664e-02	3.295e-02	No	-1.877e-01	7.037e-02	Yes	
	0-10%	-6.093e-05	3.827e-05	No	-9.599e-02	1.133e-01	No	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	-3.478e-05	1.983e-04	No	-2.846e-04	6.743e-04	No	
	30-50%	-2.054e-02	2.609e-02	No	-3.701e-03	3.136e-03	No	

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

# DCA $K_S^0$

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 vs 3 mm			3 vs 4 mm			
	0-10%	-5.098e-04	7.595e-03	No	1.734e-04	2.179e-04	No	
$\Lambda K_S^0$	10-30%	-4.222e-03	5.512e-04	Yes	-2.562e-03	2.121e-03	Yes	
	30-50%	-8.888e-03	4.572e-03	No	-1.701e-02	6.118e-03	Yes	
	0-10%	-6.442e-04	1.336e-04	Yes	-5.795e-03	2.421e-02	No	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	-6.376e-04	2.764e-04	Yes	-2.128e-03	4.345e-04	Yes	
	30-50%	-2.418e-03	9.059e-04	Yes	-1.175e-01	5.116e-01	No	

**Table 5:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  caption

# DCA K<sub>s</sub><sup>0</sup> SimpleExp

	3 · 1 · 1								
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 vs 3 mm			3 vs 4 mm				
	0-10%	2.285 e-04	1.917 e-04	No	1.566 e-04	3.170 e-04	No		
$\Lambda K_S^0$	10-30%	3.336 e-04	0.407 e-04	Yes	6.280 e-05	3.057 e-05	Yes		
	30-50%	7.842 e-03	4.208 e-03	No	1.721 e-02	0.623 e-02	Yes		
	0-10%	2.195 e-04	0.209 e-04	Yes	1.195 e-04	0.156 e-04	Yes		
$\bar{\Lambda} \mathrm{K}_{S}^{0}$	10-30%	6.398 e-04	2.905 e-04	Yes	5.440 e-04	3.639 e-04	No		
	30-50%	2.474 e-03	1.368 e-03	No	2.661 e-04	2.694 e-04	No		

**Table 6:**  $\Lambda(\bar{\Lambda})K^0_{S}$  Analyses: DCA  $K^0_{S}$  caption

### DCA K<sub>S</sub><sup>0</sup> 500MeVMaxFit

	2011	115 5 0 0 1 1 1 0 1 1	.,100,11	•			
	Fit Amplitudes						
Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
	2 vs 3 mm			3 vs 4 mm			
0-10%	-1.033e-04	5.689e-04	No	4.601e-02	1.295e-01	No	
10-30%	-3.256e-02	4.003e-01	No	-2.569e-03	2.134e-03	No	
30-50%	-9.087e-03	4.729e-03	No	-1.725e-02	6.276e-03	Yes	
0-10%	-5.587e-02	2.478e-01	No	-3.939e-04	8.073e-04	No	
10-30%	-4.325e-04	7.423e-04	No	-2.972e-02	1.304e-01	No	
30-50%	-3.118e-01	9.701e-01	No	-4.751e-04	1.773e-03	No	
	0-10% 10-30% 30-50% 0-10% 10-30%	Centrality Amplitude  2 v  0-10% -1.033e-04  10-30% -3.256e-02  30-50% -9.087e-03  0-10% -5.587e-02  10-30% -4.325e-04	Centrality Amplitude Error  2 vs 3 mm  0-10% -1.033e-04 5.689e-04  10-30% -3.256e-02 4.003e-01  30-50% -9.087e-03 4.729e-03  0-10% -5.587e-02 2.478e-01  10-30% -4.325e-04 7.423e-04	Centrality   Amplitude   Error   Sig   2 vs 3 mm	Centrality         Amplitude         Error         Sig         Amplitude           2 vs 3 mm         3 vs           0-10%         -1.033e-04         5.689e-04         No         4.601e-02           10-30%         -3.256e-02         4.003e-01         No         -2.569e-03           30-50%         -9.087e-03         4.729e-03         No         -1.725e-02           0-10%         -5.587e-02         2.478e-01         No         -3.939e-04           10-30%         -4.325e-04         7.423e-04         No         -2.972e-02	Fit Amplitudes           Centrality         Amplitude         Error         Sig         Amplitude         Error           2 vs 3 mm         3 vs 4 mm           0-10%         -1.033e-04         5.689e-04         No         4.601e-02         1.295e-01           10-30%         -3.256e-02         4.003e-01         No         -2.569e-03         2.134e-03           30-50%         -9.087e-03         4.729e-03         No         -1.725e-02         6.276e-03           0-10%         -5.587e-02         2.478e-01         No         -3.939e-04         8.073e-04           10-30%         -4.325e-04         7.423e-04         No         -2.972e-02         1.304e-01	

**Table 7:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  caption

# DCA K<sub>S</sub> 500MeVMaxFit SimpleExp

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 .	vs 3 mm		3 vs 4 mm			
	0-10%	-1.149e-04	1.616e-04	No	1.495e-04	3.020e-04	No	
$\Lambda K_S^0$	10-30%	2.336e-04	7.234e-05	Yes	-2.560e-03	2.270e-03	No	
	30-50%	-7.966e-03	4.151e-03	No	-1.721e-02	6.245e-03	Yes	
	0-10%	6.657e-05	5.808e-04	No	7.037e-05	2.753e-05	Yes	
$\bar{\Lambda} K_S^0$	10-30%	-4.373e-04	3.529e-04	No	-4.653e-04	3.627e-04	No	
	30-50%	-2.048e-03	1.296e-03	No	-2.871e-04	8.150e-04	No	

**Table 8:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  caption

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

		1						
		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		3 י	vs 4 mm		4 vs 5 mm			
	0-10%	-2.521e-04	2.924e-04	No	1.855e-04	2.245e-04	No	
$\Lambda K_S^0$	10-30%	-2.065e-02	2.251e-01	No	-2.885e-04	2.460e-04	No	
	30-50%	-9.063e-02	8.577e-02	Yes	8.807e-02	2.246e-01	No	
	0-10%	1.291e-04	3.440e-04	No	1.180e-05	1.241e-04	No	
$ar{\Lambda}  ext{K}_S^0$	10-30%	-9.701e-03	9.174e-03	Yes	-4.654e-02	3.200e-01	No	
	30-50%	-1.187e-02	1.435e-02	No	-1.513e-01	1.729e-01	Yes	

**Table 9:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $\Lambda(\bar{\Lambda})$  Daughters

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

	- ( )								
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		3 vs 4 mm			4 vs 5 mm				
	0-10%	5.045 e-05	2.044 e-05	Yes	1.857 e-04	2.696 e-04	No		
$\Lambda K_S^0$	10-30%	1.623 e-04	0.417 e-04	Yes	4.511 e-05	3.336 e-05	No		
	30-50%	8.649 e-02	8.209 e-02	No	2.261 e-04	0.773 e-04	Yes		
	0-10%	3.701 e-05	5.523 e-05	No	4.478 e-05	5.365 e-05	No		
$\bar{\Lambda} K_S^0$	10-30%	1.721 e-04	0.430 e-04	Yes	3.055 e-04	1.227 e-04	Yes		
	30-50%	8.004 e-05	9.944 e-05	No	3.030 e-04	2.329 e-04	No		

**Table 10:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $\Lambda(\bar{\Lambda})$  Daughters

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

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		3 vs 4 mm			4 vs 5 mm			
	0-10%	-2.026e-04	6.614e-04	No	2.292e-02	8.029e-02	No	
$\Lambda K_S^0$	10-30%	5.864e-05	7.232e-04	No	1.148e-03	1.704e-03	No	
	30-50%	-8.853e-02	9.281e-02	No	-4.432e-02	3.643e-02	No	
	0-10%	6.097e-05	2.955e-04	No	-1.036e-02	1.335e-02	No	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	-9.871e-03	9.501e-03	No	-1.316e-03	2.197e-03	Yes	
	30-50%	-2.936e-04	1.749e-03	No	-1.496e-01	1.755e-01	No	

**Table 11:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA  $\Lambda(\bar{\Lambda})$  Daughters

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

					• •			
		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		3 vs 4 mm			4 vs 5 mm			
	0-10%	1.743e-05	3.776e-05	No	1.972e-04	2.813e-04	No	
$\Lambda K_S^0$	10-30%	1.293e-04	7.761e-05	No	-8.925e-05	6.165e-05	No	
	30-50%	-8.647e-02	9.120e-02	No	-5.097e-02	5.611e-02	No	
	0-10%	-8.539e-06	3.914e-05	No	5.936e-05	3.128e-05	No	
$\bar{\Lambda} \mathrm{K}_{S}^{0}$	10-30%	1.001e-04	7.999e-05	No	-2.452e-04	2.952e-04	No	
	30-50%	4.672e-05	1.859e-04	No	-1.423e-01	1.753e-01	No	

**Table 12:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $\Lambda(\bar{\Lambda})$  Daughters

# DCA $K_S^0$ Daughters

		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 .	vs 3 mm		3	vs 4 mm			
	0-10%	-1.776e-03	1.570e-03	No	-2.483e-03	2.563e-03	No		
$\Lambda K_S^0$	10-30%	-1.195e-01	6.027e-02	Yes	-1.214e-03	1.265e-03	No		
	30-50%	-1.394e-01	5.485e-02	Yes	-1.196e-03	1.962e-03	No		
	0-10%	-2.234e-03	1.729e-03	Yes	-2.695e-03	5.304e+02	No		
$\bar{\Lambda} K_S^0$	10-30%	-5.343e-04	5.054e-04	Yes	-1.431e-02	1.046e-01	No		
	30-50%	-2.720e-02	1.860e-02	No	-3.800e-03	2.364e-03	Yes		

Table 13:  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  Daughters

# DCA K<sub>S</sub><sup>0</sup> Daughters SimpleExp

			3		1			
		Fit Amplitudes						
71	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 vs 3 mm			3 vs 4 mm			
	0-10%	1.261 e-03	1.161 e-03	No	2.395 e-03	2.508 e-03	No	
$\Lambda K_S^0$	10-30%	1.361 e-04	0.461 e-04	Yes	1.640 e-03	1.581 e-03	No	
	30-50%	1.397 e-01	0.549 e-01	Yes	1.168 e+01	5.857 e+01	No	
	0-10%	3.649 e-03	2.544 e-03	No	6.439 e-05	1.849 e-05	Yes	
$\bar{\Lambda} K_S^0$	10-30%	2.648 e-04	0.475 e-04	Yes	5.477 e-04	8.515 e-04	No	
	30-50%	2.814 e-02	1.870 e-02	No	3.439 e-04	0.839 e-04	Yes	

**Table 14:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  Daughters

# DCA $K_S^0$ Daughters 500MeVMaxFit

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 vs 3 mm			3 vs 4 mm			
	0-10%	-2.224e-03	1.964e-03	No	-2.608e-03	2.700e-03	No	
$\Lambda K_S^0$	10-30%	-1.196e-01	6.076e-02	No	-1.712e-03	1.802e-03	No	
_	30-50%	-1.399e-01	5.516e-02	Yes	-2.294e-03	3.122e-03	No	
	0-10%	-3.090e-03	2.209e-03	No	-5.637e-04	1.041e-03	No	
$\bar{\Lambda} K_S^0$	10-30%	-1.205e-01	1.280e+00	No	-1.011e-03	3.690e-03	No	
	30-50%	-2.501e-02	1.913e-02	No	-1.227e-02	9.527e-03	No	

**Table 15:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA  $K^0_S$  Daughters

# DCA K<sub>S</sub><sup>0</sup> Daughters 500MeVMaxFit SimpleExp

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 vs 3 mm			3 vs 4 mm			
	0-10%	-1.383e-03	1.201e-03	No	-2.394e-03	2.528e-03	No	
$\Lambda K_S^0$	10-30%	-1.199e-01	6.112e-02	No	-1.673e-03	1.620e-03	No	
	30-50%	-1.397e-01	5.508e-02	Yes	-2.249e-03	3.303e-03	No	
	0-10%	-3.646e-03	2.561e-03	No	-4.246e-04	5.171e-04	No	
$\bar{\Lambda} K_S^0$	10-30%	1.800e-04	8.734e-05	Yes	-7.128e-04	9.398e-04	No	
_	30-50%	-2.813e-02	1.883e-02	No	-1.285e-02	9.463e-03	No	

**Table 16:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA  $K_S^0$  Daughters

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

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		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.999	2 vs 0.9993		0.9993 vs 0.9994				
	0-10%	4.736e-03	2.311e-03	Yes	1.700e-02	7.601e-02	No		
$\Lambda K_S^0$	10-30%	5.172e-03	2.253e-03	Yes	1.154e-04	1.586e+02	No		
	30-50%	3.862e-03	1.806e-03	Yes	5.883e-03	1.638e-03	Yes		
	0-10%	1.141e-03	1.203e-03	Yes	-3.554e-03	1.875e-02	No		
$\bar{\Lambda} K_S^0$	10-30%	3.518e-04	3.120e-04	No	-9.358e-03	6.628e-02	No		
	30-50%	2.669e-03	1.312e-03	Yes	-4.334e-04	9.528e-03	No		

**Table 17:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $\Lambda(\bar{\Lambda})$  Cosine of Pointing Angle

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

11(11) Common of 1 children of 1 children									
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.999	2 vs 0.9993		0.99	93 vs 0.9994	•		
	0-10%	4.733 e-03	2.309 e-03	Yes	2.720 e-03	524.319 e-03	No		
$\Lambda K_S^0$	10-30%	5.201 e-03	2.269 e-03	Yes	6.453 e-05	5.364 e-05	No		
	30-50%	1.248 e-04	0.343 e-04	Yes	5.450 e-03	1.503 e-03	Yes		
	0-10%	2.318 e-05	0.778 e-05	Yes	6.065 e-05	6.332 e-05	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	3.206 e-04	2.932 e-04	No	4.932 e-05	1.728 e-05	Yes		
	30-50%	4.297 e-04	1.609 e-04	Yes	1.165 e-04	0.402 e-04	Yes		

**Table 18:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $\Lambda(\bar{\Lambda})$  Cosine of Pointing Angle

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

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.9992 vs 0.9993			0.9993 vs 0.9994			
	0-10%	4.739e-03	2.319e-03	Yes	-1.139e-02	4.924e-02	No	
$\Lambda K_S^0$	10-30%	5.190e-03	2.265e-03	Yes	1.970e-02	1.534e-02	No	
	30-50%	3.717e-03	1.848e-03	Yes	5.557e-03	1.618e-03	Yes	
	0-10%	1.146e-03	1.219e-03	No	-1.535e-02	9.010e-02	No	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	3.266e-02	1.168e-01	No	1.117e-02	6.354e-02	No	
	30-50%	2.072e-03	1.019e-03	Yes	-9.320e-02	5.512e-01	No	

**Table 19:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $\Lambda(\bar{\Lambda})$  Cosine of Pointing Angle

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

						•			
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.9992 vs 0.9993			0.9993 vs 0.9994				
	0-10%	4.733e-03	2.311e-03	Yes	-7.459e-05	1.768e-04	No		
$\Lambda K_S^0$	10-30%	5.201e-03	2.270e-03	Yes	-2.253e-05	7.593e-05	No		
	30-50%	-6.078e-05	6.309e-05	No	5.494e-03	1.496e-03	Yes		
	0-10%	-2.031e-05	8.438e-07	Yes	-4.978e-05	6.433e-05	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	3.929e-04	2.778e-04	No	1.333e-04	2.362e-04	No		
	30-50%	1.770e-03	6.120e-04	Yes	1.169e-04	7.436e-05	No		

**Table 20:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $\Lambda(\bar{\Lambda})$  Cosine of Pointing Angle

# $K_S^0$ Cosine of Pointing Angle

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.999	2 vs 0.9993		0.999	3 vs 0.9994		
	0-10%	-3.192e-04	4.037e-04	No	7.957e-04	5.050e-04	Yes	
$\Lambda K_S^0$	10-30%	-2.184e-02	1.354e-01	No	-5.937e-03	4.484e-02	No	
	30-50%	-3.489e-04	3.645e-04	No	-1.182e-01	2.429e-01	No	
	0-10%	5.974e-04	4.142e-04	No	6.145e-04	4.107e-04	Yes	
$ar{\Lambda} {\sf K}^0_S$	10-30%	4.988e-03	2.080e-03	Yes	1.610e-03	1.412e-03	Yes	
	30-50%	-5.806e-02	1.270e-01	No	-9.421e-04	4.946e-04	No	

**Table 21:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $K^0_S$  Cosine of Pointing Angle

#### K<sup>0</sup><sub>S</sub> Cosine of Pointing Angle SimpleExp

3								
		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.9992 vs 0.9993			0.9993 vs 0.9994			
	0-10%	3.209 e-04	4.053 e-04	No	2.184 e-04	2.188 e-04	No	
$\Lambda K_S^0$	10-30%	1.491 e-03	2.069 e-03	No	5.593 e-05	2.241 e-05	Yes	
	30-50%	3.328 e-04	6.564 e-04	No	3.971 e-04	0.502 e-04	Yes	
	0-10%	6.409 e-04	4.583 e-04	No	2.956 e-05	1.153 e-05	Yes	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	1.662 e-04	0.201 e-04	Yes	6.241 e-05	2.570 e-05	Yes	
	30-50%	1.302 e-04	3.166 e-04	No	2.182 e-04	0.515 e-04	Yes	

**Table 22:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $K^0_S$  Cosine of Pointing Angle

## K<sub>S</sub><sup>0</sup> Cosine of Pointing Angle 500MeVMaxFit

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.999	2 vs 0.9993		0.999	3 vs 0.9994		
	0-10%	-2.748e-04	2.327e-04	No	5.633e-04	1.743e-04	Yes	
$\Lambda K_S^0$	10-30%	1.283e-03	1.818e-03	No	8.058e-03	3.959e-03	Yes	
	30-50%	1.622e-04	1.393e-03	No	5.106e-03	2.875e-03	No	
	0-10%	4.427e-04	3.762e-04	No	6.478e-04	6.512e-04	No	
$\bar{\Lambda} \mathrm{K}_S^0$	10-30%	4.230e-03	1.702e-03	Yes	1.217e-03	1.138e-03	No	
	30-50%	7.326e-03	4.745e-03	Yes	5.373e-04	1.605e-03	No	

**Table 23:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses:  $K^0_S$  Cosine of Pointing Angle

## K<sub>S</sub><sup>0</sup> Cosine of Pointing Angle 500MeVMaxFit SimpleExp

	S S					*			
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.999	2 vs 0.9993		0.9993 vs 0.9994				
	0-10%	-3.282e-04	4.102e-04	No	7.088e-04	3.667e-04	No		
$\Lambda K_S^0$	10-30%	1.476e-03	2.082e-03	No	8.069e-03	3.961e-03	Yes		
	30-50%	-3.150e-04	6.895e-04	No	5.057e-03	2.639e-03	No		
	0-10%	5.986e-04	4.487e-04	No	7.197e-04	7.865e-04	No		
$\bar{\Lambda} K_S^0$	10-30%	3.562e-03	1.378e-03	Yes	1.303e-03	1.067e-03	No		
	30-50%	5.878e-02	8.703e-02	No	1.493e-04	1.017e-04	No		

**Table 24:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses:  $K_S^0$  Cosine of Pointing Angle

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

		Fit Amplitudes							
Pair Type   Centrali	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.5	vs 1 mm		1 vs 2 mm				
	0-10%	0.000e+00	0.000e+00	No	-1.197e-03	9.873e-04	Yes		
$\Lambda K_S^0$	10-30%	1.567e-07	1.894e-06	No	-8.125e-04	1.282e-03	Yes		
	30-50%	0.000e+00	0.000e+00	No	5.361e-03	6.412e-03	Yes		
	0-10%	0.000e+00	0.000e+00	No	-2.369e-04	4.189e-04	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	0.000e+00	0.000e+00	No	6.808e-02	5.327e-01	No		
	30-50%	0.000e+00	0.000e+00	No	-5.296e-03	2.603e-03	Yes		

**Table 25:**  $\Lambda(\bar{\Lambda})K^0_S$  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		Fit Amplitudes							
	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		0.5	vs 1 mm		1 vs 2 mm				
	0-10%	0.000 e-00	0.000 e-00	No	2.627 e-03	2.488 e-03	No		
$\Lambda K_S^0$	10-30%	1.542 e-07	3.999 e-07	No	1.947 e-04	0.737 e-04	Yes		
	30-50%	0.000 e-00	0.000 e-00	No	5.955 e-03	7.515 e-03	No		
	0-10%	0.000 e-00	0.000 e-00	No	2.431 e-04	4.365 e-04	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	0.000 e-00	0.000 e-00	No	3.454 e-04	0.750 e-04	Yes		
	30-50%	0.000 e-00	0.000 e-00	No	8.376 e-04	17.096 e-04	No		

**Table 26:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $p^+(\bar{p}^-)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

		Fit Amplitudes						
Pair Type   Cent	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.5	vs 1 mm		1 v	s 2 mm		
	0-10%	0.000e+00	0.000e+00	No	-1.795e-03	1.945e-03	No	
$\Lambda K_S^0$	10-30%	3.865e-06	2.831e-06	No	-6.617e-02	3.318e-01	No	
	30-50%	0.000e+00	0.000e+00	No	5.453e-03	6.819e-03	No	
	0-10%	0.000e+00	0.000e+00	No	-8.382e-02	3.424e-01	No	
$ar{\Lambda}  ext{K}_S^0$	10-30%	0.000e+00	0.000e+00	No	7.522e-02	4.435e-01	No	
	30-50%	0.000e+00	0.000e+00	No	9.370e-02	8.096e-02	No	

**Table 27:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $p^+(\bar{p}^-)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

		Fit Amplitudes						
Pair Type   Ce	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		0.5	vs 1 mm		1 ,	vs 2 mm		
	0-10%	0.000e+00	0.000e+00	No	-2.602e-03	2.525e-03	No	
$\Lambda K_S^0$	10-30%	2.964e-07	1.165e-06	No	1.702e-04	9.110e-05	No	
	30-50%	0.000e+00	0.000e+00	No	5.775e-03	7.524e-03	No	
	0-10%	0.000e+00	0.000e+00	No	-2.584e-04	4.464e-04	No	
$\bar{\Lambda} K_S^0$	10-30%	0.000e+00	0.000e+00	No	-3.469e-04	1.403e-04	Yes	
	30-50%	0.000e+00	0.000e+00	No	-6.689e-04	1.232e-03	No	

**Table 28:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $p^+(\bar{p}^-)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 vs 3 mm			3 v	vs 4 mm			
	0-10%	-8.432e-04	9.717e-04	Yes	-7.591e-05	1.155e-04	No		
$\Lambda K_S^0$	10-30%	-1.287e-04	1.797e-04	No	-3.352e-04	3.326e-04	No		
	30-50%	1.345e-02	9.502e-03	Yes	6.001e-03	4.808e-03	No		
	0-10%	-1.051e-04	9.449e-05	Yes	-7.565e-05	9.354e-05	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	2.201e-02	1.242e-02	Yes	-2.012e-04	1.922e-03	No		
	30-50%	-1.652e-02	2.324e-01	No	-1.348e-01	8.053e-01	No		

**Table 29:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-(\pi^+)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

2 of the finding vertex of the (iv.) 2 augment of 12(12) simple2p									
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2	vs 3 mm		3 vs 4 mm				
	0-10%	4.071 e-05	1.292 e-05	Yes	7.267 e-05	9.759 e-05	No		
$\Lambda K_S^0$	10-30%	3.802 e-05	1.986 e-05	No	7.270 e-05	2.580 e-05	Yes		
	30-50%	7.601 e-04	4.585 e-04	No	6.004 e-03	4.800 e-03	No		
	0-10%	7.057 e-05	0.993 e-05	Yes	6.916 e-05	8.861 e-05	No		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	7.893 e-05	2.044 e-05	Yes	1.626 e-04	1.068 e-04	No		
	30-50%	2.229 e-04	0.489 e-04	Yes	2.199 e-04	2.354 e-04	No		

**Table 30:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-(\pi^+)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 ,	vs 3 mm		3	vs 4 mm			
	0-10%	-6.500e-03	9.251e-02	No	-8.742e-04	2.949e-04	Yes		
$\Lambda K_S^0$	10-30%	-3.754e-05	6.477e-04	No	1.724e-02	1.047e-01	No		
	30-50%	1.467e-02	1.035e-02	Yes	5.984e-03	4.845e-03	No		
	0-10%	-2.913e-02	1.043e-01	No	9.866e-04	3.005e-04	Yes		
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	2.197e-02	1.242e-02	No	3.265e-02	1.604e-01	No		
	30-50%	1.840e-03	2.010e-03	No	4.275e-02	1.307e-02	Yes		

**Table 31:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-(\pi^+)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

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

		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 ,	vs 3 mm		3	vs 4 mm	•		
	0-10%	3.829e-05	1.846e-05	Yes	-4.781e-05	8.826e-05	No		
$\Lambda K_S^0$	10-30%	1.498e-03	2.398e-03	No	4.245e+00	4.457e+01	No		
	30-50%	3.751e-03	2.567e-03	No	6.001e-03	4.805e-03	No		
	0-10%	5.680e-05	1.816e-05	Yes	-3.516e-05	2.272e-05	No		
$\bar{\Lambda} \mathrm{K}_S^0$	10-30%	1.539e-04	2.857e-04	No	-1.311e-04	4.871e-05	Yes		
	30-50%	1.410e-03	1.734e-03	No	4.401e-02	1.349e-02	Yes		

**Table 32:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-(\pi^+)$  Daughter of  $\Lambda(\bar{\Lambda})$ 

# DCA to Primary Vertex of $\pi^+$ Daughter of $K_S^0$

		Fit Amplitudes							
Pair Type   Ce	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 ,	vs 3 mm		3	vs 4 mm			
	0-10%	6.388e-03	2.637e-02	No	4.199e-02	6.327e-02	No		
$\Lambda K_S^0$	10-30%	4.661e-02	2.184e-01	No	2.701e-02	9.611e-02	No		
	30-50%	1.780e-03	2.167e-03	No	9.225e-02	5.533e-02	Yes		
	0-10%	4.010e-04	4.972e-04	No	1.898e-02	8.318e-02	No		
$\bar{\Lambda} K_S^0$	10-30%	2.010e-04	2.337e-04	Yes	2.234e-02	1.094e-01	No		
	30-50%	5.327e-02	1.493e-01	No	-3.745e-04	1.374e-03	No		

**Table 33:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^+$  Daughter of  $K_S^0$ 

#### DCA to Primary Vertex of $\pi^+$ Daughter of $K_s^0$ SimpleExp

	2 of the finning vertex of the 2 magnetic of the 5 map to 2 map to 2 magnetic of the 5 magnetic of the								
		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2	2 vs 3 mm			3 vs 4 mm			
	0-10%	9.442 e-05	1.482 e-05	Yes	1.579 e-04	0.168 e-04	Yes		
$\Lambda K_S^0$	10-30%	1.162 e-04	0.312 e-04	Yes	8.443 e-05	3.562 e-05	Yes		
	30-50%	1.475 e-03	1.223 e-03	No	3.713 e-04	3.997 e-04	No		
	0-10%	8.044 e-04	12.068 e-04	No	2.189 e-04	1.488 e-04	No		
$\bar{\Lambda} K_S^0$	10-30%	1.292 e-04	0.317 e-04	Yes	8.393 e-05	3.616 e-05	Yes		
	30-50%	9.851 e-04	0.776 e-04	Yes	2.054 e-04	0.875 e-04	Yes		

**Table 34:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^+$  Daughter of  $K_S^0$ 

## DCA to Primary Vertex of $\pi^+$ Daughter of $K_S^0$ 500MeVMaxFit

		Fit Amplitudes							
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
		2 ,	vs 3 mm		3 ,	vs 4 mm			
	0-10%	-2.608e-02	4.971e-02	No	-7.864e-03	7.668e-03	Yes		
$\Lambda K_S^0$	10-30%	-8.553e-03	7.190e-03	No	-5.121e-04	6.840e-04	No		
	30-50%	2.406e-03	2.064e-03	No	6.805e-03	2.133e-03	Yes		
	0-10%	5.941e-04	1.172e-03	No	4.175e-04	4.092e-04	No		
$ar{\Lambda}  ext{K}_S^0$	10-30%	4.652e-02	3.458e-01	No	-7.284e-03	1.660e-02	No		
	30-50%	2.016e-01	3.865e+00	No	-5.308e-05	2.336e-03	No		

**Table 35:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^+$  Daughter of  $K_S^0$ 

DCA to Primary Vertex of  $\pi^+$  Daughter of  $K_S^0$  500MeVMaxFit SimpleExp

		Fit Amplitudes						
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig	
		2 v	vs 3 mm		3 '	vs 4 mm		
	0-10%	-4.519e-05	2.636e-05	No	-8.563e-05	3.040e-05	Yes	
$\Lambda K_S^0$	10-30%	-8.408e-03	7.107e-03	No	-4.274e-04	9.735e-04	No	
	30-50%	2.064e-03	1.619e-03	No	1.274e-03	1.270e-03	No	
	0-10%	8.474e-04	1.271e-03	No	3.787e-04	3.383e-04	No	
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	-7.583e-05	5.660e-05	No	-7.112e-03	1.605e-02	No	
	30-50%	-6.532e-04	1.388e-04	Yes	3.770e-02	1.629e-02	Yes	

**Table 36:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^+$  Daughter of  $K_S^0$ 

# DCA to Primary Vertex of $\pi^-$ Daughter of $K_S^0$

		Fit Amplitudes								
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig			
		2 ,	vs 3 mm		3	vs 4 mm				
	0-10%	2.544e-02	1.012e-01	No	3.537e-04	3.539e-04	Yes			
$\Lambda K_S^0$	10-30%	3.565e-04	1.986e-04	No	1.305e-03	2.713e-03	No			
	30-50%	4.448e-02	2.572e-02	No	1.089e-01	3.232e-01	No			
	0-10%	-7.581e-04	4.856e-04	Yes	9.319e-02	2.536e-01	No			
$\bar{\Lambda} \mathrm{K}_S^0$	10-30%	2.354e-02	9.667e-02	No	6.463e-04	2.477e-04	Yes			
	30-50%	1.611e-01	5.981e-01	No	6.695e-02	2.650e-01	No			

**Table 37:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA to Primary Vertex of  $\pi^-$  Daughter of  $K^0_S$ 

#### DCA to Primary Vertex of $\pi^-$ Daughter of $K_s^0$ SimpleExp

Pair Type		Fit Amplitudes								
	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig			
		2	vs 3 mm		3	vs 4 mm				
	0-10%	3.295 e-04	4.180 e-04	No	1.465 e-04	0.810 e-04	No			
$\Lambda K_S^0$	10-30%	1.043 e-04	0.317 e-04	Yes	1.487 e-04	0.361 e-04	Yes			
	30-50%	4.433 e-02	2.571 e-02	No	7.637 e-04	8.309 e-04	No			
	0-10%	1.107 e-04	0.423 e-04	Yes	9.278 e-02	10.901 e-02	No			
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	3.453 e-04	2.179 e-04	No	1.411 e-03	1.914 e-03	No			
	30-50%	3.505 e-04	3.077 e-04	No	3.244 e-04	0.886 e-04	Yes			

**Table 38:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-$  Daughter of  $K_S^0$ 

# DCA to Primary Vertex of $\pi^-$ Daughter of $K_S^0$ 500MeVMaxFit

		Fit Amplitudes									
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig				
		2 ,	vs 3 mm		3						
	0-10%	-3.737e-04	2.921e-04	No	3.329e-04	3.135e-04	No				
$\Lambda K_S^0$	10-30%	4.062e-04	7.856e-04	No	5.080e-02	3.015e-01	No				
	30-50%	4.471e-02	2.576e-02	No	-1.367e-01	3.135e-04 No 3.015e-01 No 1.684e+00 No 1.088e-01 No 2.286e-03 No	No				
	0-10%	-6.888e-04	4.034e-04	Yes	9.217e-02	1.088e-01	No				
$\bar{\Lambda} \mathrm{K}_S^0$	10-30%	-6.684e-02	6.573e-01	No	1.507e-03	2.286e-03	No				
	30-50%	-5.625e-03	7.924e-02	No	2.084e-05	1.285e-03	No				

**Table 39:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: DCA to Primary Vertex of  $\pi^-$  Daughter of  $K^0_S$ 

DCA to Primary Vertex of  $\pi^-$  Daughter of  $K^0_S$  500MeVMaxFit SimpleExp

		Fit Amplitudes								
Pair Type	Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig			
		2 .	vs 3 mm		3 v	vs 4 mm				
	0-10%	-3.283e-04	4.184e-04	No	3.117e-04	2.151e-04	No			
$\Lambda K_S^0$	10-30%	-7.208e-07	3.153e-04	No	2.858e-04	6.697e-04	No			
	30-50%	4.434e-02	2.574e-02	No	2.761e-04	itude         Error         Si           3 vs 4 mm         Ve-04         2.151e-04         No           3 e-04         6.697e-04         No         No           4 e-04         1.565e-04         No         No           5 e-02         1.113e-01         No         No           6 e-03         1.986e-03         No	No			
	0-10%	8.823e-05	2.701e-05	Yes	9.286e-02	1.113e-01	No			
$\bar{\Lambda} \mathrm{K}^0_S$	10-30%	1.778e-04	5.686e-05	Yes	1.343e-03	1.986e-03	No			
	30-50%	1.449e-04	1.368e-04	No	-1.887e-04	1.605e-04	No			

**Table 40:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: DCA to Primary Vertex of  $\pi^-$  Daughter of  $K_S^0$ 

## Avgerage Separation of Like-Charge Daughters

					Fit Amplitude						
Pair Type	pe Daughters		Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
				5.0 vs 6.0 cm		6.0	vs 7.0 cm				
			0-10%	1.411e-05	4.698e-07	Yes	2.585e-06	8.713e-06	Yes		
$\Lambda K_S^0$	p(A)	$\pi^+(\mathbf{K}^0_S)$	10-30%	7.573e-04	1.805e-04	Yes	-1.845e-05	1.834e-05	No		
		~	30-50%	4.158e-04	5.709e-05	Yes	7.731e-04	1.416e-04	Yes		
			0-10%	1.353e-05	6.116e-06	Yes	-5.059e-06	1.011e-06	Yes		
$\Lambda K_S^0$	$\pi^-(\Lambda)$	$\pi^-(\mathrm{K}^0_S)$	10-30%	-2.665e-06	8.444e-06	No	-1.157e-05	1.549e-05	No		
_			30-50%	4.096e-04	7.522e-05	Yes	9.083e-04	4.578e-05	Yes		
			0-10%	2.020e-05	5.991e-06	Yes	-1.200e-06	3.157e-06	No		
$ar{\Lambda}  ext{K}_S^0$	$\pi^+(\bar{\Lambda})$	$\pi^+(\mathrm{K}^0_S)$	10-30%	7.702e-04	7.002e-04	No	2.173e-04	1.205e-04	Yes		
		_	30-50%	-9.212e-07	4.247e-05	No	6.443e-04	8.313e-05	Yes		
			0-10%	7.047e-05	6.696e-06	Yes	1.671e-05	4.885e-06	Yes		
$ar{\Lambda}  ext{K}_S^0$	$\bar{p}^-(\bar{\Lambda})$	$\pi^-(K_S^0)$	10-30%	2.769e-05	5.334e-07	Yes	1.010e-03	3.667e-04	Yes		
			30-50%	1.414e-03	1.135e-04	Yes	-2.984e-05	5.983e-05	No		

**Table 41:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: Avgerage Separation of Positive Daughters

#### Avgerage Separation of Like-Charge Daughters SimpleExp

Avgerage separation of Like-Charge Daughters ShippleDxp											
				Fit Amplitude							
Pair Type	Pair Type Daughters		Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
				5.0 vs 6.0 cm 6.0 vs 7.0 cm							
			0-10%	1.470 e-05	0.077 e-05	Yes	1.106 e-05	0.028 e-05	Yes		
$\Lambda K_S^0$	p(A)	$\pi^+(\mathrm{K}^0_S)$	10-30%	3.301 e-05	1.005 e-05	Yes	1.738 e-05	0.121 e-05	Yes		
			30-50%	5.385 e-04	0.839 e-04	Yes	3.867 e-04	0.997 e-04	Yes		
			0-10%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
$\Lambda K_S^0$	$\pi^-(\Lambda)$	$\pi^-(\mathrm{K}^0_S)$	10-30%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
			30-50%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
			0-10%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
$\bar{\Lambda} \mathrm{K}_S^0$	$\pi^+(\bar{\Lambda})$	$\pi^+(\mathrm{K}^0_S)$	10-30%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
			30-50%	0.000 e-00	0.000 e-00	No	0.000 e-00	0.000 e-00	No		
			0-10%	2.079 e-04	0.163 e-04	Yes	1.040 e-05	0.638 e-05	No		
$\bar{\Lambda} K_S^0$	$ar p^-(ar\Lambda)$	$\pi^-(\mathbf{K}^0_S)$	10-30%	4.176 e-05	0.070 e-05	Yes	7.918 e-05	2.449 e-05	Yes		
			30-50%	1.225 e-03	0.092 e-03	Yes	2.495 e-05	0.380 e-05	Yes		

**Table 42:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: Avgerage Separation of Positive Daughters

## Avgerage Separation of Like-Charge Daughters 500MeVMaxFit

	ı								
							plitude		
Pair Type	ype Daughters		Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig
				5.0	vs 6.0 cm		6.0	vs 7.0 cm	
			0-10%	1.509e-05	3.300e-05	No	5.692e-04	3.758e-04	No
$\Lambda K_S^0$	$p(\Lambda)$	$\pi^+(\mathbf{K}^0_S)$	10-30%	1.981e-05	2.897e-05	No	5.948e-02	7.965e-05	Yes
			30-50%	6.630e-04	6.601e-04	No	7.122e-04	1.322e-04	Yes
			0-10%	5.113e-04	2.177e-04	Yes	-5.775e-05	3.737e-05	No
$\Lambda K_S^0$	$\pi^-(\Lambda)$	$\pi^-(\mathrm{K}^0_S)$	10-30%	5.405e-03	1.317e-02	No	7.111e-04	1.293e-04	Yes
			30-50%	4.522e-05	4.113e-05	No	7.746e-05	6.301e-06	Yes
			0-10%	8.959e-04	2.124e-04	Yes	-3.231e-06	3.802e-05	No
$\bar{\Lambda} \mathrm{K}^0_S$	$\pi^+(ar{\Lambda})$	$\pi^+(\mathrm{K}^0_S)$	10-30%	8.833e-04	2.599e-04	Yes	1.588e-05	4.047e-05	No
		_	30-50%	2.309e-02	3.156e-02	No	6.364e-05	5.192e-05	No
			0-10%	1.677e-04	1.092e-04	No	-3.992e-05	3.184e-05	No
$ar{\Lambda} \mathrm{K}^0_S$	$ar{p}^-(ar{\Lambda})$	$\pi^-(K_S^0)$	10-30%	1.470e-05	3.656e-05	No	-2.323e-06	9.305e-05	No
			30-50%	7.334e-05	2.896e-05	Yes	5.538e-04	3.085e-04	No

**Table 43:**  $\Lambda(\bar{\Lambda})K^0_{S}$  Analyses: Avgerage Separation of Positive Daughters

## Avgerage Separation of Like-Charge Daughters 500MeVMaxFit SimpleExp

Avgerage Separation of Like-Charge Daughters 500/Me v MaxFit SimpleExp  Fit Amplitude											
				Fit Amplitude							
Pair Type	Pair Type Daug		Centrality	Amplitude	Error	Sig	Amplitude	Error	Sig		
				5.0	vs 6.0 cm		6.0	vs 7.0 cm			
			0-10%	1.665e-05	2.087e-06	Yes	2.653e-04	1.739e-04	No		
$\Lambda K_S^0$	$p(\Lambda)$	$\pi^+(\mathrm{K}^0_S)$	10-30%	2.331e-05	4.563e-05	No	-1.713e-05	6.046e-06	Yes		
			30-50%	4.333e-04	1.155e-04	Yes	7.198e-04	1.244e-04	Yes		
			0-10%	7.361e-06	2.047e-06	Yes	-2.548e-05	2.467e-05	No		
$\Lambda K_S^0$	$\pi^-(\Lambda)$	$\pi^-(\mathrm{K}^0_S)$	10-30%	4.421e-05	3.105e-05	No	7.315e-04	1.322e-04	Yes		
			30-50%	6.366e-05	5.813e-05	No	1.154e-04	8.695e-06	Yes		
			0-10%	8.888e-04	2.082e-04	Yes	-5.316e-06	3.826e-05	No		
$\bar{\Lambda} \mathrm{K}_{S}^{0}$	$\pi^+(ar{\Lambda})$	$\pi^+(\mathrm{K}^0_S)$	10-30%	9.162e-04	2.614e-04	Yes	1.925e-05	6.041e-05	No		
		~	30-50%	1.478e-04	4.676e-05	Yes	9.973e-05	6.549e-05	No		
			0-10%	1.730e-04	1.161e-04	No	-2.798e-05	4.725e-05	No		
$ar{\Lambda}  ext{K}_S^0$	$ar{p}^-(ar{\Lambda})$	$\pi^-(K_S^0)$	10-30%	1.579e-05	5.734e-05	No	-3.884e-07	6.028e-06	No		
			30-50%	1.074e-04	3.781e-05	Yes	4.932e-04	2.440e-04	Yes		

**Table 44:**  $\Lambda(\bar{\Lambda})K^0_S$  Analyses: Avgerage Separation of Positive Daughters