

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%	6.666 e-03	20.858 e-03	No	1.019 e-02	6.227 e-02	No
	10-30%	6.310 e-03	29.855 e-03	No	2.460 e-02	4.712 e-02	No
	30-50%	5.296 e-02	6.016 e-02	No	7.354 e-04	4.393 e-04	No
$\bar{\Lambda} K^-$	0-10%	1.678 e-04	0.822 e-04	Yes	2.776 e-04	1.373 e-04	Yes
	10-30%	7.670 e-04	2.620 e-04	Yes	4.637 e-03	38.028 e-03	No
	30-50%	2.464 e-02	16.944 e-02	No	5.859 e-04	58.496 e-04	No
$\Lambda K^-$	0-10%	3.957 e-04	9.414 e-04	No	1.755 e-04	1.311 e-04	No
	10-30%	8.918 e-04	4.324 e-04	Yes	3.992 e-04	2.014 e-04	No
	30-50%	1.631 e-03	1.318 e-03	No	8.526 e-04	7.790 e-04	No
$\bar{\Lambda} K^+$	0-10%	1.581 e-04	2.243 e-04	No	1.169 e-02	11.672 e-02	No
	10-30%	5.592 e-04	2.294 e-02	Yes	1.115 e-03	1.203 e-03	No
	30-50%	3.128 e-03	2.911 e-03	No	5.595 e-05	80.720 e-05	No

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

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

Talk about stuff

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

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
4 vs 5 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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
5 vs 6 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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 2:**  $\Lambda(\bar{\Lambda})K^\pm$  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%	1.077 e-02	0.933 e-02	No	2.477 e-03	1.215 e-03	Yes
	10-30%	4.819 e-02	39.667 e-02	No	3.668 e-04	20.752 e-04	No
	30-50%	1.002 e-03	1.848 e-03	No	2.652 e-02	22.007 e-02	No
$\bar{\Lambda} K^-$	0-10%	3.447 e-05	11.236 e-05	No	3.323 e-03	17.138 e-03	No
	10-30%	3.139 e-02	15.270 e-02	No	1.053 e-03	1.199 e-02	No
	30-50%	8.406 e-04	13.369 e-04	No	2.359 e-03	2.918 e-03	No
$\Lambda K^-$	0-10%	2.908 e-03	13.797 e-03	No	5.250 e-04	6.241 e-04	No
	10-30%	2.643 e-04	2.386 e-04	No	4.442 e-04	2.721 e-04	No
	30-50%	1.134 e-02	0.734 e-02	No	4.163 e-02	16.315 e-02	No
$\bar{\Lambda} K^+$	0-10%	5.184 e-05	18.302 e-05	No	4.305 e-05	8.438 e-05	No
	10-30%	6.008 e-02	21.671 e-02	No	3.188 e-02	2.276 e-02	No
	30-50%	4.338 e-04	6.151 e-04	No	1.003 e-02	10.768 e-02	No

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

DCA $\Lambda(\Lambda)$ Daughters					
Pair Type	Centrality	Fit Results			
		A	B	C	Sig
3 vs 4 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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
4 vs 5 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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 4:**  $\Lambda(\bar{\Lambda})K^\pm$  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%	8.394 e-05	10.174 e-05	No	6.421 e-04	5.369 e-04	No
	10-30%	3.348 e-02	2.067 e-02	No	7.091 e-04	9.065 e-04	No
	30-50%	6.816 e-03	38.867 e-03	No	4.748 e-04	7.771 e-04	No
$\bar{\Lambda} K^-$	0-10%	4.503 e-05	5.867 e-05	No	3.207 e-04	0.843 e-04	Yes
	10-30%	4.920 e-04	10.402 e-04	No	3.091 e-02	0.623 e-00	Yes
	30-50%	2.214 e-03	1.278 e-03	No	4.164 e-05	21.519 e-05	No
$\Lambda K^-$	0-10%	9.043 e-05	7.387 e-05	No	1.788 e-04	2.381 e-04	No
	10-30%	1.058 e-04	0.807 e-04	No	5.921 e-03	2.927 e-03	Yes
	30-50%	5.142 e-04	14.771 e-04	No	7.095 e-03	54.203 e-03	No
$\bar{\Lambda} K^+$	0-10%	5.468 e-05	27.046 e-05	No	9.797 e-05	7.333 e-05	No
	10-30%	1.028 e-03	12.697 e-03	No	1.389 e-02	7.163 e-02	No
	30-50%	3.528 e-02	11.990 e-02	No	3.424 e-02	18.616 e-02	No

**Table 5:**  $\Lambda(\bar{\Lambda})K^\pm$  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					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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 6:**  $\Lambda(\bar{\Lambda})K^\pm$  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%	0.000 e-00	0.000 e-00	No	2.562 e-02	22.557 e-02	No
	10-30%	8.206 e-08	612.046 e-08	No	8.864 e-03	6.253 e-03	No
	30-50%	0.000 e-00	0.000 e-00	No	2.358 e-03	2.022 e-03	No
$\bar{\Lambda} K^-$	0-10%	0.000 e-00	0.000 e-00	No	1.186 e-03	1.200 e-03	No
	10-30%	0.000 e-00	0.000 e-00	No	4.978 e-04	6.611 e-04	No
	30-50%	0.000 e-00	0.000 e-00	No	6.475 e-04	24.200 e-04	No
$\Lambda K^-$	0-10%	0.000 e-00	0.000 e-00	No	2.843 e-02	13.435 e-02	No
	10-30%	1.759 e-07	10.590 e-07	No	6.419 e-03	5.210 e-03	No
	30-50%	0.000 e-00	0.000 e-00	No	7.035 e-02	28.008 e-02	No
$\bar{\Lambda} K^+$	0-10%	0.000 e-00	0.000 e-00	No	4.477 e-04	3.459 e-04	No
	10-30%	0.000 e-00	0.000 e-00	No	1.255 e-03	0.928 e-03	No
	30-50%	0.000 e-00	0.000 e-00	No	8.232 e-04	6.959 e-04	No

**Table 7:**  $\Lambda(\bar{\Lambda})K^\pm$  Analyses: DCA to Primary Vertex of  $p^+(\bar{p}^-)$  Daughter of  $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
0.5 vs 1 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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 8:**  $\Lambda(\bar{\Lambda})K^\pm$  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%	4.843 e-03	18.205 e-03	No	3.108 e-03	3.879 e-03	No
	10-30%	1.895 e-02	7.504 e-02	No	2.906 e-02	8.290 e-02	No
	30-50%	4.478 e-02	10.992 e-02	No	1.124 e-03	2.850 e-03	No
$\bar{\Lambda} K^-$	0-10%	5.539 e-03	24.491 e-03	No	1.614 e-04	2.137 e-04	No
	10-30%	1.357 e-04	1.308 e+02	No	3.438 e-04	1.172 e-04	Yes
	30-50%	6.511 e-03	5.171 e-03	No	5.130 e-04	4.026 e-04	No
$\Lambda K^-$	0-10%	3.514 e-05	5.587 e-05	No	1.187 e-04	0.845 e-04	No
	10-30%	8.213 e-07	793.398 e-07	No	7.553 e-03	37.211 e-03	No
	30-50%	4.040 e-02	23.899 e-02	No	4.779 e-04	4.900 e-04	No
$\bar{\Lambda} K^+$	0-10%	3.105 e-04	3.344 e-04	No	7.463 e-05	8.161 e-05	No
	10-30%	4.365 e-04	3.362 e-04	No	7.773 e-03	60.765 e-03	No
	30-50%	3.146 e-02	24.169 e-02	No	2.535 e-03	2.080 e-03	No

**Table 9:**  $\Lambda(\bar{\Lambda})K^\pm$  Analyses: DCA to Primary Vertex of  $\pi^-(\pi^+)$  Daughter of  $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	Fit Results			
		A	B	C	Sig
2 vs 3 mm					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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					
$\Lambda K^+$	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
$\bar{\Lambda} K^-$	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
$\Lambda K^-$	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
$\bar{\Lambda} K^+$	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:**  $\Lambda(\bar{\Lambda})K^\pm$  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%	3.686 e-06	1.868 e-06	No	2.810 e-06	2.876 e-06	No
			10-30%	1.913 e-06	3.456 e-06	No	4.146 e-06	2.760 e-06	No
			30-50%	2.437 e-05	2.000 e-05	No	4.171 e-06	21.075 e-06	No
$\bar{\Lambda} K^-$	$\bar{p}^-(\bar{\Lambda})$	$K^-$	0-10%	7.353 e-07	20.912 e-07	No	3.354 e-05	0.674 e-05	Yes
			10-30%	2.786 e-05	0.757 e-05	Yes	8.456 e-07	68.740 e-05	No
			30-50%	3.246 e-03	0.258 e-03	Yes	2.117 e-05	2.576 e-05	No
$\Lambda K^-$	$\pi^-(\Lambda)$	$K^-$	0-10%	2.628 e-05	0.373 e-05	Yes	4.464 e-06	3.426 e-06	No
			10-30%	8.931 e-08	749.009 e-08	No	4.327 e-06	8.289 e-06	No
			30-50%	8.489 e-06	18.542 e-06	No	6.277 e-05	2.490 e-05	Yes
$\bar{\Lambda} K^+$	$\pi^+(\bar{\Lambda})$	$K^+$	0-10%	4.788 e-06	2.222 e-06	Yes	3.779 e-06	1.987 e-06	No
			10-30%	6.776 e-06	6.236 e-06	No	1.142 e-05	0.374 e-05	Yes
			30-50%	5.680 e-04	1.505 e-04	Yes	2.448 e-06	24.520 e-06	No

**Table 11:**  $\Lambda(\bar{\Lambda})K_S^0$  Analyses: Average Separation of  $\Lambda(\bar{\Lambda})$  Daughter With Same Charge as  $K^\pm$