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

Pair Type	Centrality	p-value	
		4 vs 5 mm	5 vs 6 mm
ΛK^0_S	0-10%	0.36	0.05
	10-30%	0.10	0.37
	30-50%	0.27	6.7e-8
$\bar{\Lambda} K^0_S$	0-10%	0.08	3.2e-4
	10-30%	0.15	0.31
	30-50%	3.7e-3	7.1e-3

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

DCA K^0_S

Pair Type	Centrality	p-value	
		2 vs 3 mm	3 vs 4 mm
ΛK^0_S	0-10%	0.32	0.76
	10-30%	2.1e-3	0.13
	30-50%	0.04	0.06
$\bar{\Lambda} K^0_S$	0-10%	2.8e-7	1.3e-4
	10-30%	0.22	0.62
	30-50%	0.76	0.02

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

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

Pair Type	Centrality	p-value	
		3 vs 4 mm	4 vs 5 mm
ΛK^0_S	0-10%	0.39	0.51
	10-30%	0.30	0.84
	30-50%	1.3e-38	8.7e-3
$\bar{\Lambda} K^0_S$	0-10%	0.35	0.07
	10-30%	0.07	0.13
	30-50%	0.44	0.01

Table 3: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: DCA $\Lambda(\bar{\Lambda})$ Daughters

1 Systematic Errors

This study is currently ongoing. See Table 1.

1.1 Systematic Errors: ΛK^0_S

Talk about stuff

1.2 Systematic Errors: $\Lambda K^{\pm}$

Talk about stuff

DCA K^0_S Daughters

Pair Type	Centrality	p-value	
		2 vs 3 mm	3 vs 4 mm
ΛK^0_S	0-10%	0.08	0.29
	10-30%	0.01	0.47
	30-50%	6.6e-3	0.82
$\bar{\Lambda} K^0_S$	0-10%	0.38	0.44
	10-30%	0.13	0.25
	30-50%	0.06	0.53

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

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

Pair Type	Centrality	p-value	
		0.9992 vs 0.9993	0.9993 vs 0.9994
ΛK^0_S	0-10%	0.17	0.50
	10-30%	1.2e-3	0.10
	30-50%	5.4e-3	5.6e-9
$\bar{\Lambda} K^0_S$	0-10%	0.87	0.77
	10-30%	0.09	0.13
	30-50%	9.8e-9	0.09

Table 5: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

K^0_S Cosine of Pointing Angle

Pair Type	Centrality	p-value	
		0.9992 vs 0.9993	0.9993 vs 0.9994
ΛK^0_S	0-10%	0.02	0.01
	10-30%	0.34	0.63
	30-50%	0.55	1.8e-7
$\bar{\Lambda} K^0_S$	0-10%	0.30	0.18
	10-30%	2.2e-4	0.32
	30-50%	0.41	0.11

Table 6: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: K^0_S Cosine of Pointing Angle

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

Pair Type	Centrality	p-value	
		0.5 vs 1 mm	1 vs 2 mm
ΛK^0_S	0-10%	1	0.33
	10-30%	1	0.68
	30-50%	1	0.05
$\bar{\Lambda} K^0_S$	0-10%	1	0.34
	10-30%	1	0.09
	30-50%	1	0.32

Table 7: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: DCA to Primary Vertex of $p^+(\bar{p}^-)$ Daughter of $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	p-value	
		2 vs 3 mm	3 vs 4 mm
ΛK^0_S	0-10%	0.07	0.44
	10-30%	0.03	0.20
	30-50%	9.0e-6	0.10
$\bar{\Lambda} K^0_S$	0-10%	1.4e-3	0.88
	10-30%	0.05	3.3e-3
	30-50%	0.03	1.4e-5

Table 8: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: DCA to Primary Vertex of $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

DCA to Primary Vertex of π^+ Daughter of K^0_S

Pair Type	Centrality	p-value	
		2 vs 3 mm	3 vs 4 mm
ΛK^0_S	0-10%	0.14	9.6e-4
	10-30%	0.07	0.86
	30-50%	0.93	0.11
$\bar{\Lambda} K^0_S$	0-10%	0.06	0.17
	10-30%	0.11	0.69
	30-50%	2.0e-14	0.51

Table 9: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: DCA to Primary Vertex of π^+ Daughter of K^0_S

DCA to Primary Vertex of π^- Daughter of K^0_S

Pair Type	Centrality	p-value	
		2 vs 3 mm	3 vs 4 mm
ΛK^0_S	0-10%	0.15	0.16
	10-30%	0.31	0.12
	30-50%	0.66	0.22
$\bar{\Lambda} K^0_S$	0-10%	1.1e-4	1.7e-14
	10-30%	0.01	0.82
	30-50%	0.44	0.05

Table 10: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: DCA to Primary Vertex of π^- Daughter of K^0_S

Avgerage Separation of Like-Charge Daughters

Pair Type	Daughters		Centrality	p-value	
				5.0 vs 6.0 cm	6.0 vs 7.0 cm
ΛK^0_S	p(Λ)	$\pi^+(K^0_S)$	0-10%	0.00	6.7e-276
			10-30%	1.5e-64	2.0e-10
			30-50%	5.9e-22	9.6e-29
ΛK^0_S	$\pi^-(\Lambda)$	$\pi^-(K^0_S)$	0-10%	3.3e-84	1.6e-10
			10-30%	0.52	5.0e-14
			30-50%	1.1e-8	0.00
$\bar{\Lambda}K^0_S$	$\pi^+(\bar{\Lambda})$	$\pi^+(K^0_S)$	0-10%	1.7e-81	0.88
			10-30%	2.5e-7	4.1e-39
			30-50%	2.2e-16	1.9e-26
$\bar{\Lambda}K^0_S$	$\bar{p}^-(\bar{\Lambda})$	$\pi^-(K^0_S)$	0-10%	0.00	4.3e-17
			10-30%	0.00	8.0e-62
			30-50%	9.3e-112	0.11

Table 11: $\Lambda(\bar{\Lambda})K^0_S$ Analyses: Avgerage Separation of Positive Daughters

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

Pair Type	Centrality	p-value	
		4 vs 5 mm	5 vs 6 mm
ΛK^+	0-10%	0.01	3.2e-5
	10-30%	5.9e-3	0.22
	30-50%	0.85	0.84
$\bar{\Lambda}K^-$	0-10%	0.15	0.03
	10-30%	3.1e-4	0.42
	30-50%	7.2e-3	0.42
ΛK^-	0-10%	0.35	0.05
	10-30%	1.4e-5	5.6e-3
	30-50%	0.05	0.70
$\bar{\Lambda}K^+$	0-10%	0.84	0.16
	10-30%	0.16	3.3e-3
	30-50%	2.5e-4	0.20

Table 12: $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: DCA $\Lambda(\bar{\Lambda})$

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

Pair Type	Centrality	p-value	
		3 vs 4 mm	4 vs 5 mm
ΛK^+	0-10%	0.79	0.06
	10-30%	0.10	0.60
	30-50%	8.4e-3	0.25
$\bar{\Lambda} K^-$	0-10%	2.4e-4	0.63
	10-30%	0.06	3.3e-4
	30-50%	0.03	0.04
ΛK^-	0-10%	0.70	0.40
	10-30%	0.94	0.04
	30-50%	0.05	9.5e-5
$\bar{\Lambda} K^+$	0-10%	0.09	0.04
	10-30%	0.10	0.17
	30-50%	0.10	0.43

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

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

Pair Type	Centrality	p-value	
		0.9992 vs 0.9993	0.9993 vs 0.9994
ΛK^+	0-10%	0.08	6.2e-3
	10-30%	8.7e-4	0.06
	30-50%	0.31	1.1e-3
$\bar{\Lambda} K^-$	0-10%	0.98	0.92
	10-30%	0.06	1.4e-16
	30-50%	0.47	0.40
ΛK^-	0-10%	1.0e-4	6.3e-3
	10-30%	5.7e-5	2.3e-3
	30-50%	1.9e-3	6.5e-3
$\bar{\Lambda} K^+$	0-10%	0.08	0.01
	10-30%	0.09	0.04
	30-50%	0.39	0.34

Table 14: $\Lambda(\bar{\Lambda})K^{\pm}$ Analyses: $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle

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

Pair Type	Centrality	p-value	
		0.5 vs 1.0 mm	1.0 vs 2.0 mm
ΛK^+	0-10%	1	5.5e-3
	10-30%	1	0.15
	30-50%	1	0.13
$\bar{\Lambda} K^-$	0-10%	1	0.16
	10-30%	1	0.55
	30-50%	1	0.03
ΛK^-	0-10%	1	0.30
	10-30%	1	0.70
	30-50%	1	0.44
$\bar{\Lambda} K^+$	0-10%	1	0.40
	10-30%	1	0.67
	30-50%	1	0.03

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 $\pi^-(\pi^+)$ Daughter of $\Lambda(\bar{\Lambda})$

Pair Type	Centrality	p-value	
		2.0 vs 3.0 mm	3.0 vs 4.0 mm
ΛK^+	0-10%	0.01	0.15
	10-30%	0.28	0.08
	30-50%	1.9e-8	6.1e-4
$\bar{\Lambda} K^-$	0-10%	0.55	0.36
	10-30%	0.38	0.31
	30-50%	8.4e-4	0.03
ΛK^-	0-10%	7.7e-3	0.35
	10-30%	0.01	4.0e-3
	30-50%	0.02	0.06
$\bar{\Lambda} K^+$	0-10%	0.12	0.01
	10-30%	0.63	4.1e-3
	30-50%	6.2e-11	0.44

Table 16: $\Lambda(\bar{\Lambda})K^{\pm}$ 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	p-value	
				7.0 vs 8.0 cm	8.0 vs 9.0 cm
ΛK^{+}	p(Λ)	K^{+}	0-10%	2.1e-41	1.9e-186
			10-30%	0.86	0.61
			30-50%	0.999	0.10
$\bar{\Lambda} K^{-}$	$\bar{p}^{-}(\bar{\Lambda})$	K^{-}	0-10%	3.7e-78	0.00
			10-30%	1.4e-27	9.6e-62
			30-50%	0.00	4.4e-3
ΛK^{-}	$\pi^{-}(\Lambda)$	K^{-}	0-10%	1.0e-236	5.1e-243
			10-30%	6.2e-17	4.6e-43
			30-50%	0.09	0.99
$\bar{\Lambda} K^{+}$	$\pi^{+}(\bar{\Lambda})$	K^{+}	0-10%	1.4e-76	6.9e-46
			10-30%	4.7e-14	0.61
			30-50%	3.0e-14	3.3e-4

Table 17: $\Lambda(\bar{\Lambda})K^{0}_{S}$ Analyses: Average Separation of $\Lambda(\bar{\Lambda})$ Daughter With Same Charge as $K^{\pm}$