Polynomial Bgds, THERM Bgds fit together

	Polynomial bgds, Therm bgds in together						
			Methods				
Centrality	System	Parameter	Separate	Share R	Share λ_{Conj}	Share Single λ	
	$\Lambda \mathrm{K}^+$	λ	1.70	2.18	2.16		
	$ar{\Lambda} \mathrm{K}^-$	λ	1.72	2.21	2.10	1.92	
0-10%	$\Lambda \mathrm{K}^-$	λ	2.20	2.10	1.91	1.92	
	$ar{\Lambda} \mathrm{K}^+$	λ	2.19	2.10	1.71		
	$\Lambda { m K}^+$ & $ar{\Lambda} { m K}^-$	R	4.81	5.53	5.31	5.25	
	$\Lambda \mathrm{K}^- \ \& \ \bar{\Lambda} \mathrm{K}^+$	R	5.61	3.33	3.31	3.23	
	$\Lambda \mathrm{K}^+$	λ	1.88	1.78	1.67		
	$ar{\Lambda} \mathrm{K}^-$	λ	1.66	1.58	1.07	1.57	
10-30%	ΛK^-	λ	1.58	1.62	1.53	1.57	
	$ar{\Lambda} \mathrm{K}^+$	λ	1.67	1.71	1.55		
	$\Lambda K^+ \& \bar{\Lambda} K^-$	R	4.38	4.37	4.22	4.26	
	$\Lambda K^- \& \bar{\Lambda} K^+$	R	4.20	7.37	7.22	7.20	
	$\Lambda \mathrm{K}^+$	λ	1.44	1.30	1.18		
	$ar{\Lambda} \mathrm{K}^-$	λ	1.33	1.21	1.10	1.20	
30-50%	ΛK^-	λ	1.80	2.05	1.22	1.20	
	$ar{\Lambda} \mathrm{K}^+$	λ	1.10	1.17	1.22		
	$\Lambda K^+ \& \bar{\Lambda} K^-$	R	3.01	2.92	2.77	2.87	
	$\Lambda K^- \& \bar{\Lambda} K^+$	R	2.70	2.72	2.77	2.07	
		$\mathbb{R}f_0$	-0.88	-0.87	-0.83	-0.89	
	$\Lambda \mathrm{K}^+ \ \& \ \bar{\Lambda} \mathrm{K}^-$	$\mathbb{I}f_0$	0.28	0.33	0.29	0.34	
		d_0	1.32	1.27	1.28	1.29	
		$\mathbb{R}f_0$	0.28	0.31	0.31	0.30	
	$\Lambda \mathrm{K}^- \ \& \ ar{\Lambda} \mathrm{K}^+$	$\mathbb{I}f_0$	0.35	0.37	0.40	0.39	
		d_0	-5.75	-5.32	-4.81	-4.92	

Table 1: Comparison: Polynomial non-flat background, THERMINATOR backgrounds fit together

Polynomial Bgds, THERM Bgds fit separate

			Methods			
Centrality	System	Parameter	Separate	Share R	Share λ_{Conj}	Share Single λ
	$\Lambda \mathrm{K}^+$	λ	1.58	1.90	1.91	
	$ar{\Lambda} ext{K}^-$	λ	1.59	1.92	1.91	1.95
0-10%	ΛK^-	λ	2.31	2.33	2.08	1.93
	$ar{\Lambda} \mathrm{K}^+$	λ	2.29	2.31	2.08	
	$\Lambda { m K}^+$ & $ar{\Lambda} { m K}^-$	R	4.93	5.37	5.12	4.97
	$\Lambda { m K}^-$ & $ar{\Lambda} { m K}^+$	R	5.20	3.37	3.12	4.57
	$\Lambda \mathrm{K}^+$	λ	1.70	1.59	1.52	
	$ar{\Lambda} \mathrm{K}^-$	λ	1.50	1.41	1.32	1.57
10-30%	ΛK^-	λ	1.67	1.77	1.65	1.57
	$ar{\Lambda} \mathrm{K}^+$	λ	1.76	1.87	1.03	
	$\Lambda { m K}^+$ & $ar{\Lambda} { m K}^-$	R	4.42	4.28	4.11	4.02
	$\Lambda \mathrm{K}^- \ \& \ \bar{\Lambda} \mathrm{K}^+$	R	3.99	7.20	7.11	4.02
	$\Lambda \mathrm{K}^+$	λ	1.35	1.20	1.07	
	$ar{\Lambda} \mathrm{K}^-$	λ	1.24	1.10	1.07	1.31
30-50%	$\Lambda \mathrm{K}^-$	λ	2.14	2.53	1.44	1.51
	$ar{\Lambda} \mathrm{K}^+$	λ	1.29	1.41	1.11	
	$\Lambda K^+ \& \bar{\Lambda} K^-$	R	3.10	2.93	2.73	2.83
	$\Lambda K^- \& \bar{\Lambda} K^+$	R	2.64	2.73	2.13	2.03
		$\mathbb{R}f_0$	-0.99	-0.96	-0.90	-0.83
	$\Lambda K^+ \& \bar{\Lambda} K^-$	$\mathbb{I}f_0$	0.30	0.32	0.26	0.23
		d_0	1.14	1.09	1.10	1.08
		$\mathbb{R}f_0$	0.23	0.27	0.27	0.28
	$\Lambda K^- \& \bar{\Lambda} K^+$	$\mathbb{I}f_0$	0.32	0.34	0.37	0.39
		d_0	-6.26	-5.79	-5.17	-4.87

Table 2: Comparison: Polynomial non-flat background, THERMINATOR backgrounds fit separately

Linear Bgds

	System	Parameter	Methods			
Centrality			Separate	Share R	Share λ_{Conj}	Share Single λ
0-10%	$\Lambda \mathrm{K}^+$	λ	1.53	1.88	1.78	1.66
	$ar{\Lambda} \mathrm{K}^-$	λ	1.54	1.89		
	ΛK^-	λ	1.91	1.81	1.60	
	$ar{\Lambda} \mathrm{K}^+$	λ	1.90	1.81		
	$\Lambda K^+ \& \bar{\Lambda} K^-$	R	5.43	6.10	(10) 5.7(5 01
	$\Lambda K^- \& \bar{\Lambda} K^+$	R	6.26	0.10	5.76	5.81
	$\Lambda \mathrm{K}^+$	λ	1.62	1.61	1 44	
10-30%	$ar{\Lambda} \mathrm{K}^-$	λ	1.39	1.39	1.44	1.34
	ΛK ⁻	λ	1.39	1.40	1.30	
	$ar{\Lambda} \mathrm{K}^+$	λ	1.50	1.50		
	$\Lambda { m K}^+$ & $ar{\Lambda} { m K}^-$	R	4.75	4.82	4.58	4.61
	$\Lambda K^- \& \bar{\Lambda} K^+$	R	4.74	4.82		
30-50%	$\Lambda \mathrm{K}^+$	λ	1.21	1.13	1.04	1.02
	$ar{\Lambda} \mathrm{K}^-$	λ	1.17	1.10		
	ΛK^-	λ	1.57	1.70	1.00	
	$ar{\Lambda} \mathrm{K}^+$	λ	0.92	0.96		
	$\Lambda \mathrm{K}^+$ & $\bar{\Lambda} \mathrm{K}^-$	R	3.22	3.15 2.9	2.08	3.06
	$\Lambda { m K}^-$ & $ar{\Lambda} { m K}^+$	R	2.98		2.90	
		$\mathbb{R}f_0$	-1.16	-1.13	-1.12	-1.19
	$\Lambda \mathrm{K}^+ \ \& \ ar{\Lambda} \mathrm{K}^-$	$\mathbb{I}f_0$	0.50	0.58	0.50	0.58
		d_0	1.08	1.04	1.00	1.11
		$\mathbb{R}f_0$	0.41	0.44	0.44	0.43
	$\Lambda \mathrm{K}^- \ \& \ ar{\Lambda} \mathrm{K}^+$	$\mathbb{I}f_0$	0.47	0.49	0.54	0.52
		d_0	-4.89	-4.49	-4.04	-4.21

Table 3: Comparison: Linear non-flat background