Polynomial Bgds, THERM Bgds fit together

Centrality	**System**	**Parameter**	**Methods**				
			Separate Radii		Shared Radii		
			Unique λ	Share λ_{Conj}	Unique λ	Share λ_{Conj}	Share Single λ
0-10%	ΛK^+	λ	1.37	1.37	1.97	1.91	1.83
	$\bar{\Lambda} K^-$	λ	1.39		2.00		
	ΛK^-	λ	1.58	1.87	2.04	1.83	
	$\bar{\Lambda} K^+$	λ	1.60		2.07		
	ΛK^+ & $\bar{\Lambda} K^-$	R	4.90	4.89	6.18	5.83	5.81
	ΛK^- & $\bar{\Lambda} K^+$	R	4.11	5.75			
10-30%	ΛK^+	λ	1.70	1.54	1.50	1.39	1.31
	$\bar{\Lambda} K^-$	λ	1.51		1.33		
	ΛK^-	λ	1.08	1.18	1.43	1.31	
	$\bar{\Lambda} K^+$	λ	1.10		1.48		
	ΛK^+ & $\bar{\Lambda} K^-$	R	4.78	4.68	4.75	4.53	4.50
	ΛK^- & $\bar{\Lambda} K^+$	R	3.05	4.05			
30-50%	ΛK^+	λ	1.30	1.23	1.16	1.02	1.07
	$\bar{\Lambda} K^-$	λ	1.18		1.06		
	ΛK^-	λ	1.27	0.91	2.07	1.11	
	$\bar{\Lambda} K^+$	λ	0.83		1.06		
	ΛK^+ & $\bar{\Lambda} K^-$	R	3.24	3.23	3.21	2.99	3.09
	ΛK^- & $\bar{\Lambda} K^+$	R	1.98	2.47			
	ΛK^+ & $\bar{\Lambda} K^-$	$\mathbb{R}f_0$	-1.13	-1.13	-1.13	-1.09	-1.12
		$\mathbb{I}f_0$	0.36	0.36	0.53	0.44	0.48
		d_0	1.09	1.11	1.02	0.99	1.01
	ΛK^- & $\bar{\Lambda} K^+$	$\mathbb{R}f_0$	0.15	0.30	0.40	0.40	0.39
		$\mathbb{I}f_0$	0.30	0.40	0.41	0.45	0.45
		d_0	2.07	-5.15	-4.81	-4.37	-4.35

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

Linear Bgds

Centrality	**System**	**Parameter**	**Methods**				
			Separate Radii		Shared Radii		
			Unique λ	Share λ_{Conj}	Unique λ	Share λ_{Conj}	Share Single λ
0-10%	ΛK^+	λ	1.38	1.37	1.85	1.75	1.65
	$\bar{\Lambda} K^-$	λ	1.39		1.87		
	ΛK^-	λ	2.04	1.63	1.87	1.64	
	$\bar{\Lambda} K^+$	λ	2.07		1.91		
	ΛK^+ & $\bar{\Lambda} K^-$	R	5.27	5.25	6.22	5.83	5.81
	ΛK^- & $\bar{\Lambda} K^+$	R	6.51	5.67			
10-30%	ΛK^+	λ	1.68	1.49	1.56	1.39	1.31
	$\bar{\Lambda} K^-$	λ	1.46		1.36		
	ΛK^-	λ	1.43	1.16	1.46	1.30	
	$\bar{\Lambda} K^+$	λ	1.47		1.50		
	ΛK^+ & $\bar{\Lambda} K^-$	R	4.94	4.81	4.86	4.59	4.57
	ΛK^- & $\bar{\Lambda} K^+$	R	4.70	4.14			
30-50%	ΛK^+	λ	1.19	1.16	1.13	1.01	1.04
	$\bar{\Lambda} K^-$	λ	1.15		1.09		
	ΛK^-	λ	1.92	0.88	2.00	1.07	
	$\bar{\Lambda} K^+$	λ	1.01		1.03		
	ΛK^+ & $\bar{\Lambda} K^-$	R	3.28	3.28	3.24	3.03	3.11
	ΛK^- & $\bar{\Lambda} K^+$	R	3.11	2.54			
	ΛK^+ & $\bar{\Lambda} K^-$	$\mathbb{R} f_0$	-1.22	-1.23	-1.18	-1.16	-1.20
		$\mathbb{I} f_0$	0.53	0.52	0.64	0.53	0.59
		d_0	1.12	1.14	1.07	1.01	1.07
	ΛK^- & $\bar{\Lambda} K^+$	$\mathbb{R} f_0$	0.40	0.33	0.43	0.43	0.42
		$\mathbb{I} f_0$	0.44	0.47	0.46	0.52	0.51
		d_0	-5.20	-4.85	-4.78	-4.20	-4.22

Table 2: Comparison: Linear non-flat background

Stavinsky method, no non-flat background in fit

Centrality	**System**	**Parameter**	**Methods**				
			Separate Radii		Shared Radii		
			Unique λ	Share λ_{Conj}	Unique λ	Share λ_{Conj}	Share Single λ
0-10%	ΛK^+	λ	0.95	0.93	1.34	1.21	1.05
	$\bar{\Lambda} K^-$	λ	0.90		1.27		
	ΛK^-	λ	2.38	1.28	2.15	1.15	
	$\bar{\Lambda} K^+$	λ	2.26		2.06		
	ΛK^+ & $\bar{\Lambda} K^-$	R	5.44	5.43	5.75	5.25	5.04
	ΛK^- & $\bar{\Lambda} K^+$	R	5.54	5.06			
10-30%	ΛK^+	λ	0.71	0.68	0.87	0.80	0.82
	$\bar{\Lambda} K^-$	λ	0.67		0.81		
	ΛK^-	λ	1.56	0.90	1.47	0.88	
	$\bar{\Lambda} K^+$	λ	1.77		1.66		
	ΛK^+ & $\bar{\Lambda} K^-$	R	4.21	4.17	4.16	3.90	3.99
	ΛK^- & $\bar{\Lambda} K^+$	R	3.89	3.57			
30-50%	ΛK^+	λ	0.98	1.11	0.70	0.82	0.88
	$\bar{\Lambda} K^-$	λ	1.14		0.82		
	ΛK^-	λ	4.14	0.84	3.99	0.98	
	$\bar{\Lambda} K^+$	λ	1.38		1.36		
	ΛK^+ & $\bar{\Lambda} K^-$	R	4.01	4.07	3.03	3.03	3.17
	ΛK^- & $\bar{\Lambda} K^+$	R	2.65	2.36			
	ΛK^+ & $\bar{\Lambda} K^-$	$\mathbb{R} f_0$	-1.96	-1.92	-1.51	-1.46	-1.52
		$\mathbb{I} f_0$	1.13	1.12	0.77	0.57	0.65
		d_0	0.58	0.51	-0.47	-0.42	-0.44
	ΛK^- & $\bar{\Lambda} K^+$	$\mathbb{R} f_0$	0.24	0.32	0.34	0.53	0.55
		$\mathbb{I} f_0$	0.27	0.54	0.36	0.75	0.82
		d_0	6.28	4.36	4.13	2.35	2.14

Table 3: Comparison: Stavinsky method, no non-flat background in fit