

Response to proof

The Tables I-III in the proof look very bad (I have a hard time understanding them myself). I have simplified the LaTeX script for generating these tables, and hope this will help ease the transition into your format. It appears that your style is to minimize the use of horizontal lines within the tables. I have taken most out, but have left a few that I feel make interpreting the table much easier. Please consider leaving these horizontal lines in place. I have included below screen-shots demonstrating how the tables will ideally look. Please let me know if any additional tweaks need to be made to these tables, or if you have any additional questions. Thanks!

P.S. I also have a minor comment regarding Table IV, which I have included after the screen-shots for Tables I-III

Table 1: Selection criteria for K^\pm mesons

K [±] selection			
Transverse momentum p_T	$0.14 < p_T < 1.5 \text{ GeV}/c$		
$ \eta $	< 0.8		
Transverse DCA to primary vertex	$< 2.4 \text{ cm}$		
Longitudinal DCA to primary vertex	$< 3.0 \text{ cm}$		
TPC and TOF N_σ			
$p < 0.4 \text{ GeV}/c$	$N_{\sigma K, \text{TPC}} < 2$		
$0.4 \leq p < 0.45 \text{ GeV}/c$	$N_{\sigma K, \text{TPC}} < 1$		
$0.45 \leq p < 0.80 \text{ GeV}/c$	$N_{\sigma K, \text{TPC}} < 3$		
	$N_{\sigma K, \text{TOF}} < 2$		
$0.80 \leq p < 1.0 \text{ GeV}/c$	$N_{\sigma K, \text{TPC}} < 3$		
	$N_{\sigma K, \text{TOF}} < 1.5$		
$p \geq 1.0 \text{ GeV}/c$	$N_{\sigma K, \text{TPC}} < 3$		
	$N_{\sigma K, \text{TOF}} < 1$		
Electron rejection: reject if all satisfied			
	$N_{\sigma e, \text{TPC}} < 3$		
	$N_{\sigma e, \text{TPC}} < N_{\sigma K, \text{TPC}}$		
	$N_{\sigma e, \text{TOF}} < N_{\sigma K, \text{TOF}}$		
Pion rejection: reject if:			
$p < 0.65 \text{ GeV}/c$	TOF and TPC available		$N_{\sigma \pi, \text{TPC}} < 3$
			$N_{\sigma \pi, \text{TOF}} < 3$
	Only TPC available	$p < 0.5 \text{ GeV}/c$	$N_{\sigma \pi, \text{TPC}} < 3$
		$0.5 \leq p < 0.65 \text{ GeV}/c$	$N_{\sigma \pi, \text{TPC}} < 2$
$0.65 \leq p < 1.5 \text{ GeV}/c$	$N_{\sigma \pi, \text{TPC}} < 5$		
	$N_{\sigma \pi, \text{TOF}} < 3$		
$p \geq 1.5 \text{ GeV}/c$	$N_{\sigma \pi, \text{TPC}} < 5$		
	$N_{\sigma \pi, \text{TOF}} < 2$		

Table 2: Selection criteria for Λ and $\bar{\Lambda}$ hyperons

Λ [$\bar{\Lambda}$] selection			
Transverse momentum p_T	$> 0.4 \text{ GeV}/c$		
$ \eta $	< 0.8		
Invariant mass	$ m_{p\pi} - m_{\text{PDG}} < 3.8 \text{ MeV}/c^2$		
DCA to primary vertex	$< 0.5 \text{ cm}$		
Cosine of pointing angle	> 0.9993		
Decay length	$< 60 \text{ cm}$		
π and p daughter criteria			
$ \eta $	< 0.8		
DCA πp daughters	$< 0.4 \text{ cm}$		
π -specific			
p_T	$> 0.16 \text{ GeV}/c$		
DCA to primary vertex	$> 0.3 \text{ cm}$		
TPC and TOF N_σ			
$p < 0.5 \text{ GeV}/c$	$N_{\sigma,\text{TPC}} < 3$		
$p \geq 0.5 \text{ GeV}/c$	TOF & TPC available	$N_{\sigma,\text{TPC}} < 3$	
		$N_{\sigma,\text{TOF}} < 3$	
	Only TPC available	$N_{\sigma,\text{TPC}} < 3$	
p -specific			
p_T	$> 0.5(p) [0.3(\bar{p})] \text{ GeV}/c$		
DCA to primary vertex	$> 0.1 \text{ cm}$		
TPC and TOF N_σ			
$p < 0.8 \text{ GeV}/c$	$N_{\sigma,\text{TPC}} < 3$		
$p \geq 0.8 \text{ GeV}/c$	TOF & TPC available	$N_{\sigma,\text{TPC}} < 3$	
		$N_{\sigma,\text{TOF}} < 3$	
	Only TPC available	$N_{\sigma,\text{TPC}} < 3$	

Table 3: Selection criteria for K_S^0 mesons

K_S^0 selection			
Transverse momentum p_T	$> 0.2 \text{ GeV}/c$		
$ \eta $	< 0.8		
Invariant mass	$0.480 < m_{\pi^+\pi^-} < 0.515 \text{ GeV}/c^2$		
DCA to primary vertex	$< 0.3 \text{ cm}$		
Cosine of pointing angle	> 0.9993		
Decay length	$< 30 \text{ cm}$		
π^\pm daughter criteria			
p_T	$> 0.15 \text{ GeV}/c$		
$ \eta $	< 0.8		
DCA $\pi^+\pi^-$ daughters	$< 0.3 \text{ cm}$		
DCA to primary vertex	$> 0.3 \text{ cm}$		
TPC and TOF N_σ			
$p < 0.5 \text{ GeV}/c$	$N_{\sigma,\text{TPC}} < 3$		
$p \geq 0.5 \text{ GeV}/c$	TOF & TPC available	$N_{\sigma,\text{TPC}} < 3$	
		$N_{\sigma,\text{TOF}} < 3$	
	Only TPC available	$N_{\sigma,\text{TPC}} < 3$	

Table IV is essentially a collection of six tables in one. Therefore, I believe it best to keep each completely separate; i.e., instead of all sharing a common horizontal line below the “Source λ value” entries, the line should be broken for each sub-table. I have included both the version from the current proof together with how I believe the table should ideally look.

From current proof

TABLE IV. Weight parameters (λ_{ij}) for the individual components of the ΛK correlation functions.

ΛK^+		$\bar{\Lambda} K^-$		ΛK^-		$\bar{\Lambda} K^+$	
Source	λ value	Source	λ value	Source	λ value	Source	λ value
Primary	0.509	Primary	0.509	Primary	0.509	Primary	0.510
$\Sigma^0 K^+$	0.108	$\bar{\Sigma}^0 K^-$	0.107	$\Sigma^0 K^-$	0.107	$\bar{\Sigma}^0 K^+$	0.108
$\Xi^0 K^+$	0.037	$\bar{\Xi}^0 K^-$	0.034	$\Xi^0 K^-$	0.037	$\bar{\Xi}^0 K^+$	0.035
$\Xi^- K^+$	0.048	$\bar{\Xi}^+ K^-$	0.044	$\Xi^- K^-$	0.048	$\bar{\Xi}^+ K^+$	0.045
Other	0.218	Other	0.228	Other	0.221	Other	0.225
Fakes	0.079	Fakes	0.079	Fakes	0.079	Fakes	0.079
ΛK_S^0				$\bar{\Lambda} K_S^0$			
Source		λ value		Source		λ value	
Primary		0.531		Primary		0.532	
$\Sigma^0 K_S^0$		0.118		$\bar{\Sigma}^0 K_S^0$		0.118	
$\Xi^0 K_S^0$		0.041		$\bar{\Xi}^0 K_S^0$		0.038	
$\Xi^- K_S^0$		0.053		$\bar{\Xi}^+ K_S^0$		0.049	
Other		0.189		Other		0.195	
Fakes		0.069		Fakes		0.069	

Ideal

Table 4: Weight parameters (λ_{ij}) for the individual components of the ΛK correlation functions

ΛK^+		$\bar{\Lambda} K^-$		ΛK^-		$\bar{\Lambda} K^+$	
Source	λ value	Source	λ value	Source	λ value	Source	λ value
Primary	0.509	Primary	0.509	Primary	0.509	Primary	0.510
$\Sigma^0 K^+$	0.108	$\bar{\Sigma}^0 K^-$	0.107	$\Sigma^0 K^-$	0.107	$\bar{\Sigma}^0 K^+$	0.108
$\Xi^0 K^+$	0.037	$\bar{\Xi}^0 K^-$	0.034	$\Xi^0 K^-$	0.037	$\bar{\Xi}^0 K^+$	0.035
$\Xi^- K^+$	0.048	$\bar{\Xi}^+ K^-$	0.044	$\Xi^- K^-$	0.048	$\bar{\Xi}^+ K^+$	0.045
Other	0.218	Other	0.228	Other	0.221	Other	0.225
Fakes	0.079	Fakes	0.079	Fakes	0.079	Fakes	0.079
ΛK_S^0				$\bar{\Lambda} K_S^0$			
Source		λ value		Source		λ value	
Primary		0.531		Primary		0.532	
$\Sigma^0 K_S^0$		0.118		$\bar{\Sigma}^0 K_S^0$		0.118	
$\Xi^0 K_S^0$		0.041		$\bar{\Xi}^0 K_S^0$		0.038	
$\Xi^- K_S^0$		0.053		$\bar{\Xi}^+ K_S^0$		0.049	
Other		0.189		Other		0.195	
Fakes		0.069		Fakes		0.069	