# Data Governance for Φ Beam Spin Asymmetry Weekly Update

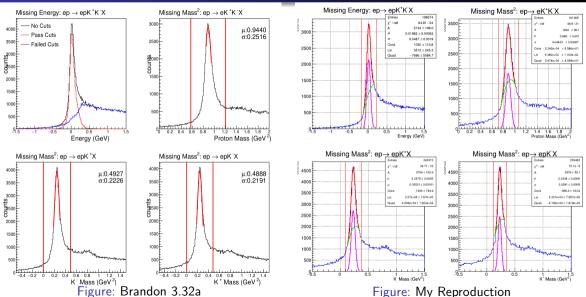
Paul Simmerling

University of Connecticut

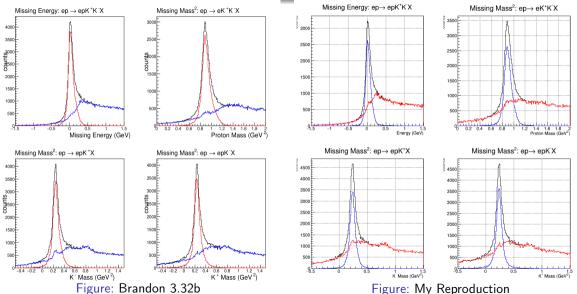
November 26, 2020

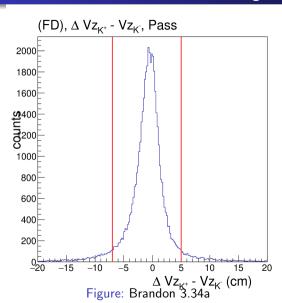
### **Exclusivity Cuts**

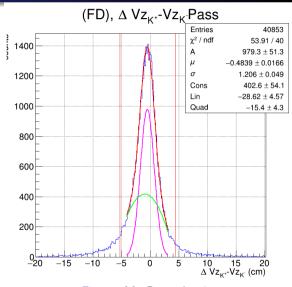
#### Skim4 FD



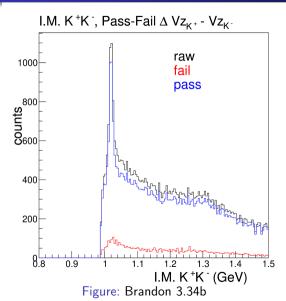
Exclusivity Cuts Skim4 FD







### Vertex Difference Cut on Charged Kaons



I.M. K+K Pass-Fail ∆ Vz<sub>K+</sub>-Vz<sub>K</sub>

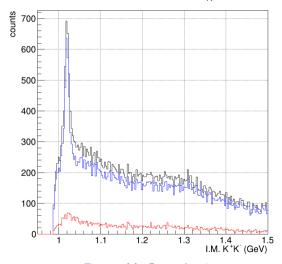
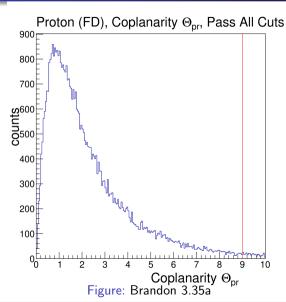


Figure: My Reproduction

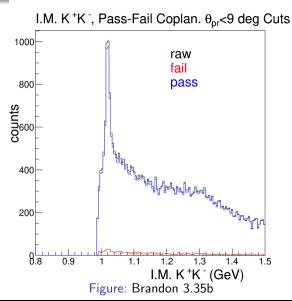
## Coplanarity Cuts



Proton (FD), Coplanarity  $\Theta_{pr}$ , Pass All Cuts counts 600 500 400 300 200 100 8 9 10 Coplanarity  $\Theta_{nr}$ 

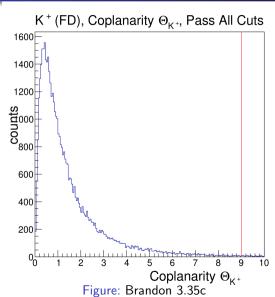
Figure: My Reproduction

I.M. K+K (GeV)



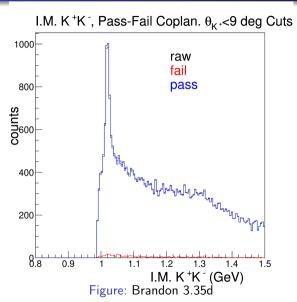
I.M. K+K, Pass-Fail Coplan. θ<sub>pr</sub><9 deg Cuts counts 600 500 400 300 " A STATE OF THE PROPERTY OF T 200 100 1.2 1.3

Figure: My Reproduction

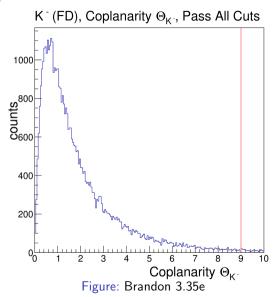


 $K^+$  (FD), Coplanarity  $\Theta_{K^+}$ , Pass All Cuts 1200 1000 800 600 400 200 Coplanarity Opt

Figure: My Reproduction



I.M. K<sup>+</sup>K<sup>-</sup>, Pass-Fail Coplan. θ<sub>κ+</sub><9 deg Cuts counts 600 500 400 300 " A TO THE TO SERVICE OF THE TOTAL SERVICE OF THE S 200 100 1.3 I.M. K+K (GeV)



 $K^{-}(FD)$ , Coplanarity  $\Theta_{K^{-}}$ , Pass All Cuts

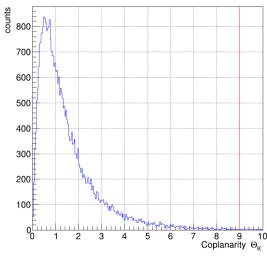
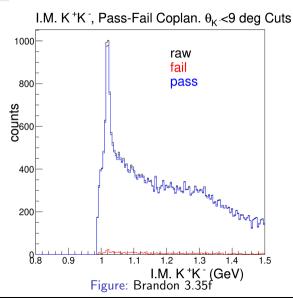
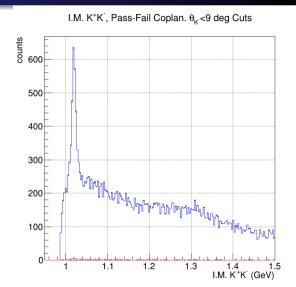
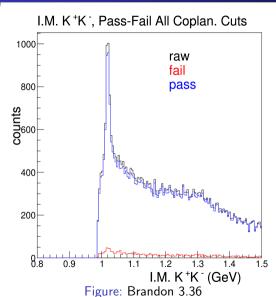


Figure: My Reproduction







I.M. K+K, Pass-Fail All Coplan. Cuts

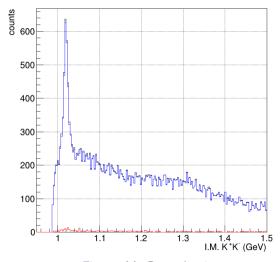
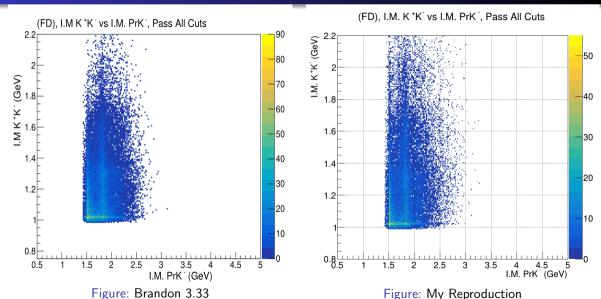
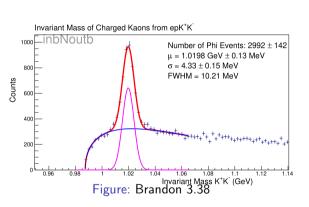
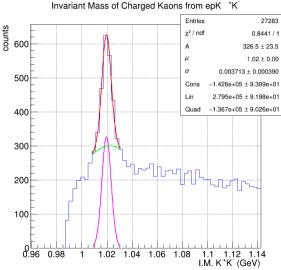
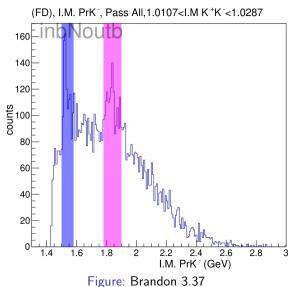


Figure: My Reproduction

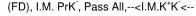


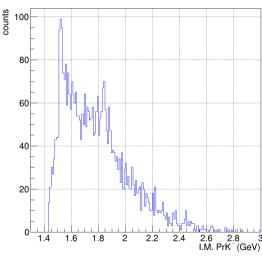






re: Brandon 3.37 Figure: My Reproduction





#### Diagnostics

Phase space,  $Q^2$ , W, &  $x_B$  measurements

## Phase Space Skim4 FD

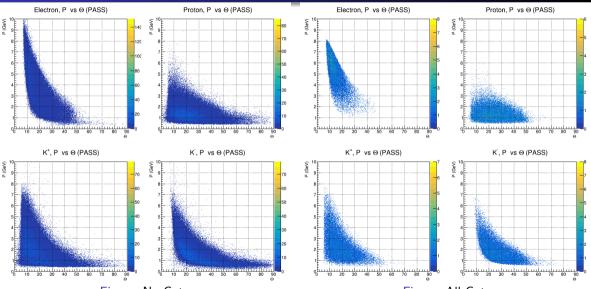


Figure: No Cuts Figure: All Cuts

# Phase Space Skim4 FD

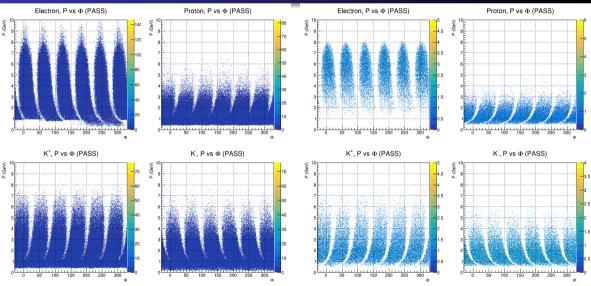
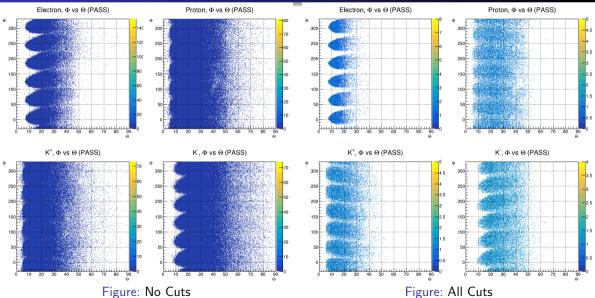


Figure: No Cuts Figure: All Cuts

## Phase Space Skim4 FD



Tigure. All Cut

Q<sup>2</sup> vs. W Skim4 FD

