

RG-K Spr24 (online) Data Studies
D.S. Carman – March 13, 2024

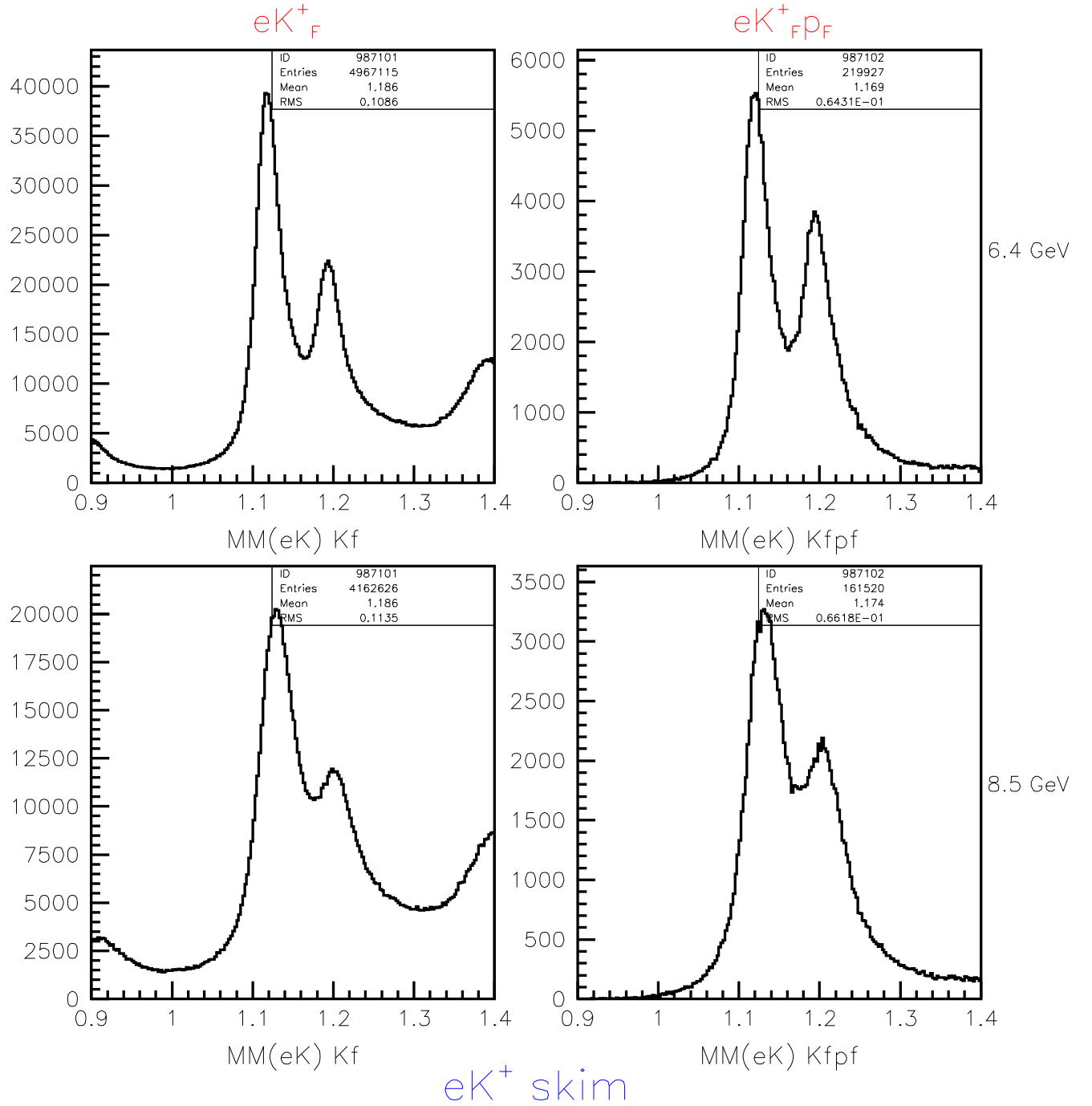


Figure 1: $MM(e'K^+)$ spectra from the RG-K Spr24 6.4 GeV and 8.5 GeV datasets using the $e'K^+$ skim. The electron is reconstructed in the ECAL and the K^+ in the FD. The right plots also require a proton in the FD with a cut on the $MM^2(e'K^+p)$ distribution to select the ground state hyperons.

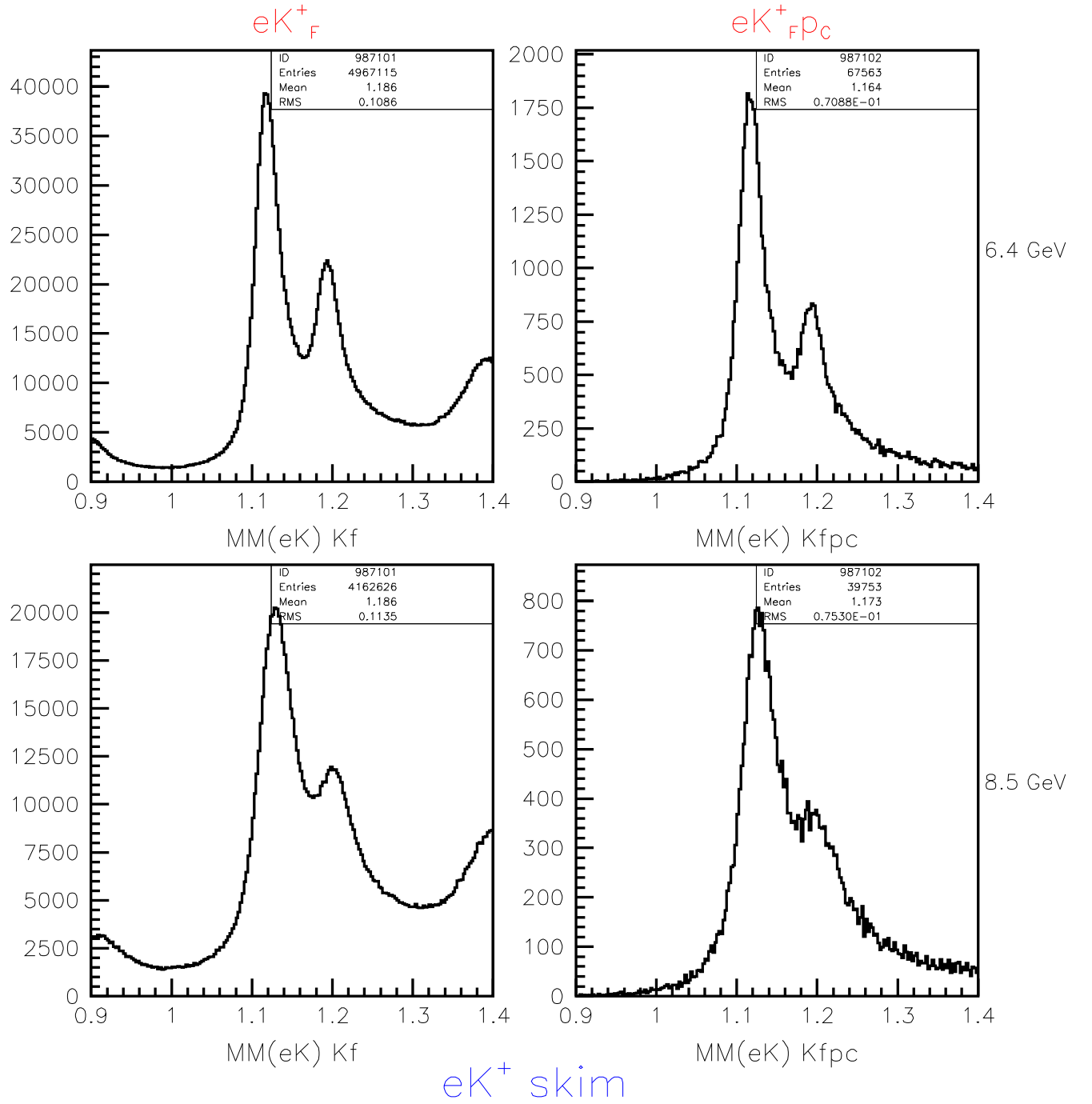


Figure 2: $MM(e'K^+)$ spectra from the RG-K Spr24 6.4 GeV and 8.5 GeV datasets using the $e'K^+$ skim. The electron is reconstructed in the ECAL and the K^+ in the FD. The right plots also require a proton in the CD with a cut on the $MM^2(e'K^+p)$ distribution to select the ground state hyperons.

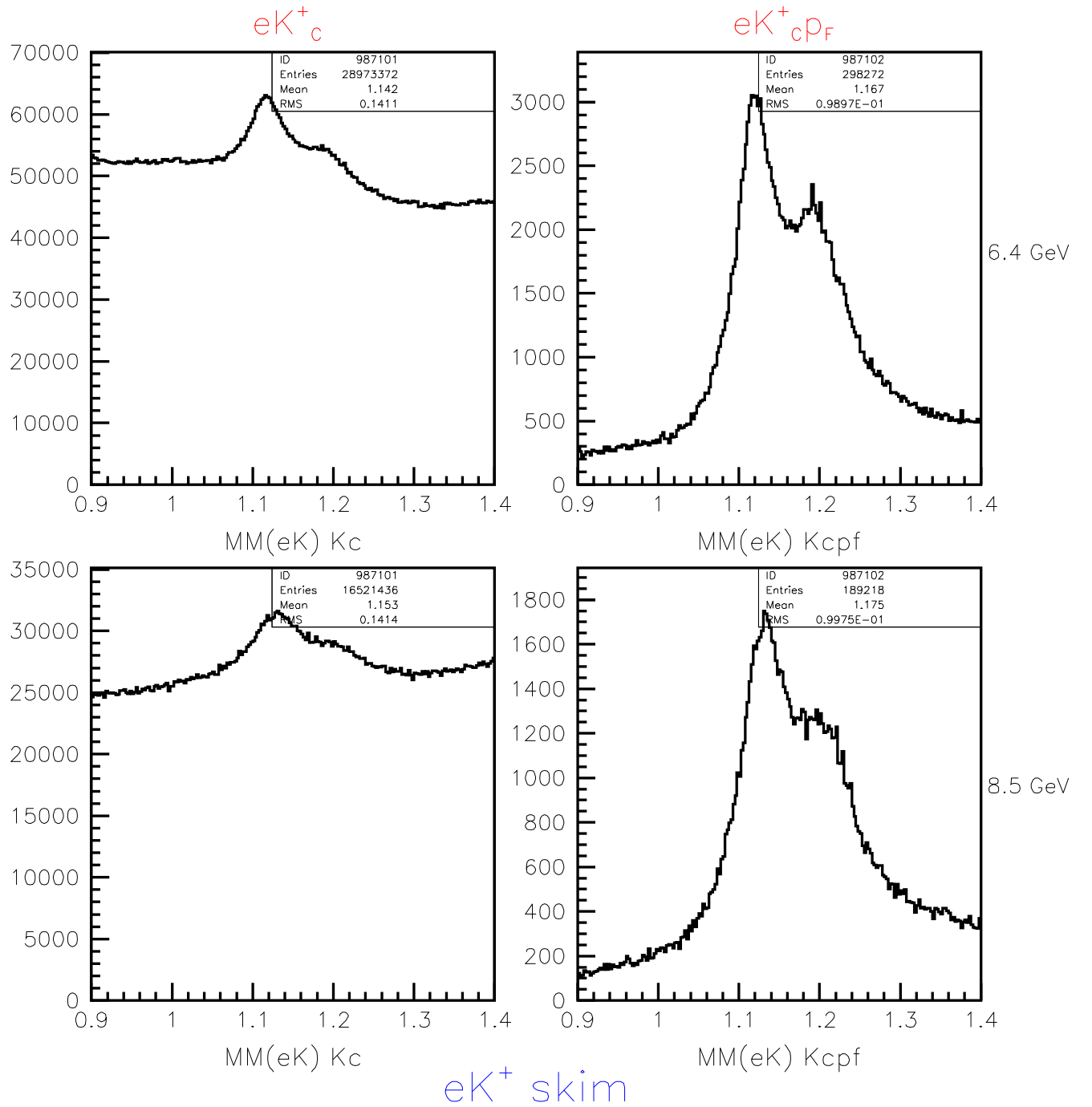


Figure 3: $MM(e'K^+)$ spectra from the RG-K Spr24 6.4 GeV and 8.5 GeV datasets using the $e'K^+$ skim. The electron is reconstructed in the ECAL and the K^+ in the CD. The right plots also require a proton in the FD with a cut on the $MM^2(e'K^+p)$ distribution to select the ground state hyperons.

- Analysis:
 - EB PID
 - $\text{chi2pid} < 8$ (e' , hadrons), $p_{min}=100$ MeV (CD)
 - β_{FD} : 0.4 - 1.1, β_{CD} : 0.2 - 1.1
- SPR24 (6.394 GeV, online, 10.0.6): 19334, 19335, 19336, 19337, 19339, 19340, 19341, 19343, 19348, 19349
- SPR24 (8.477 GeV, online, 10.0.6): 19676, 19685, 19688, 19689, 19690, 19694, 19699, 19706