



PID Selection

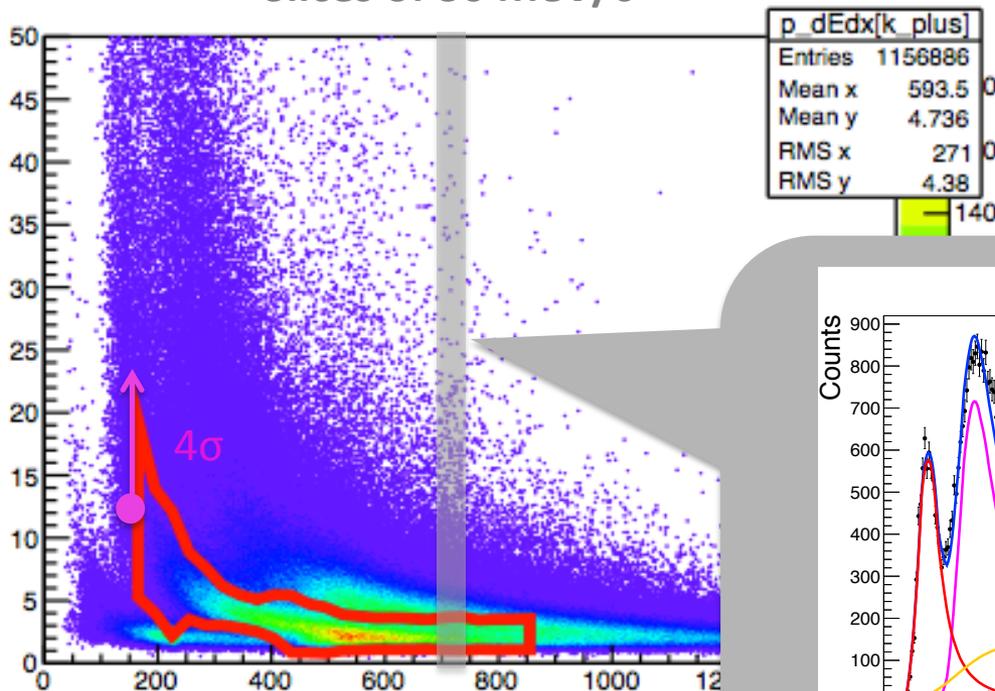
Joana Wirth

08.02.2016

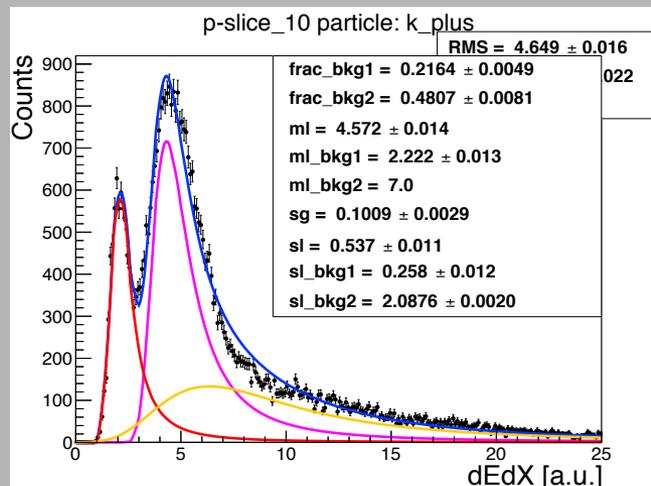
PID Selection Procedure

URQMD Simulation: π^- -W (w.o. energy loss correction)

Slices of 30 MeV/c



SELECTION of Kaons:
 $M_{K^+} \pm 50 \text{ MeV}/c^2$



Gauss: Detector resolution
 Landau: dE/dx

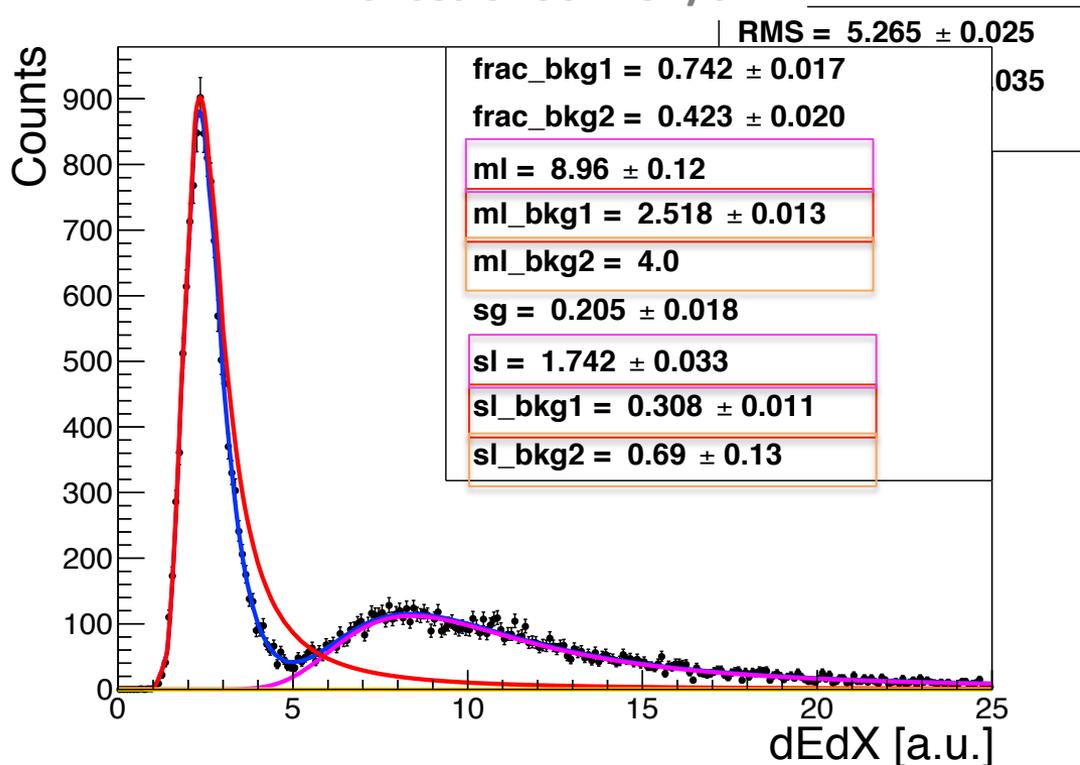
⊗ Langaus

Pion: Langaus Proton: Langaus
 Kaon: Langaus $\sigma = \sqrt{sg^2 + sl^2}$

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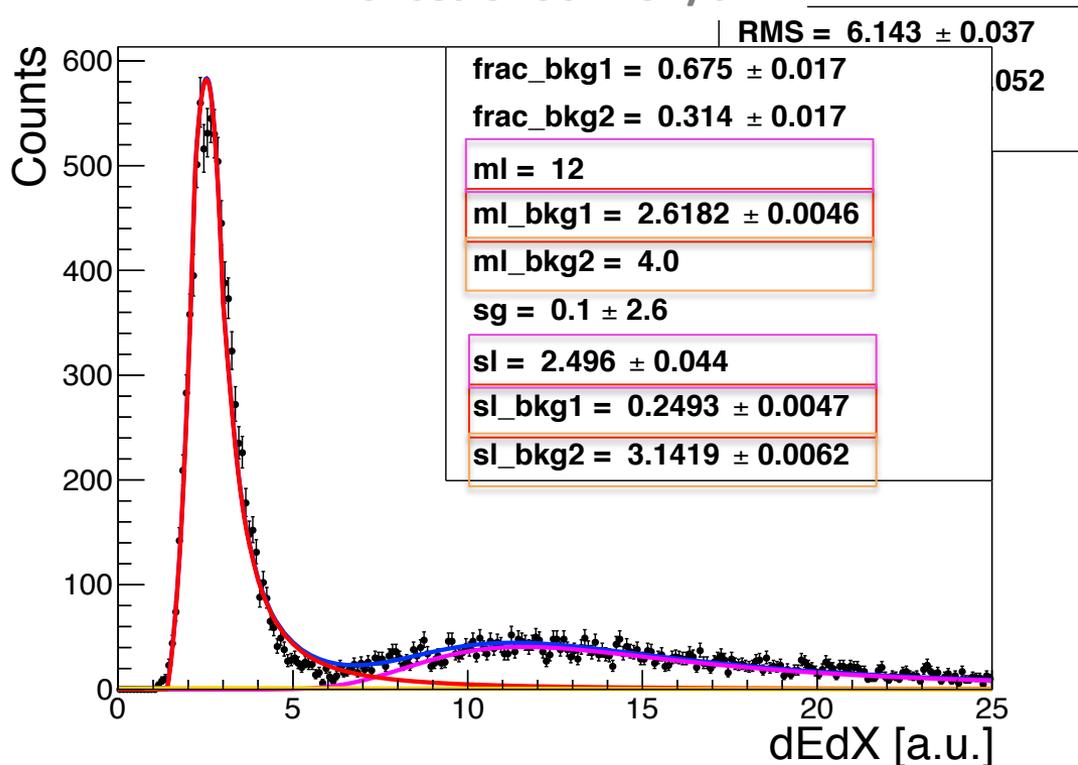
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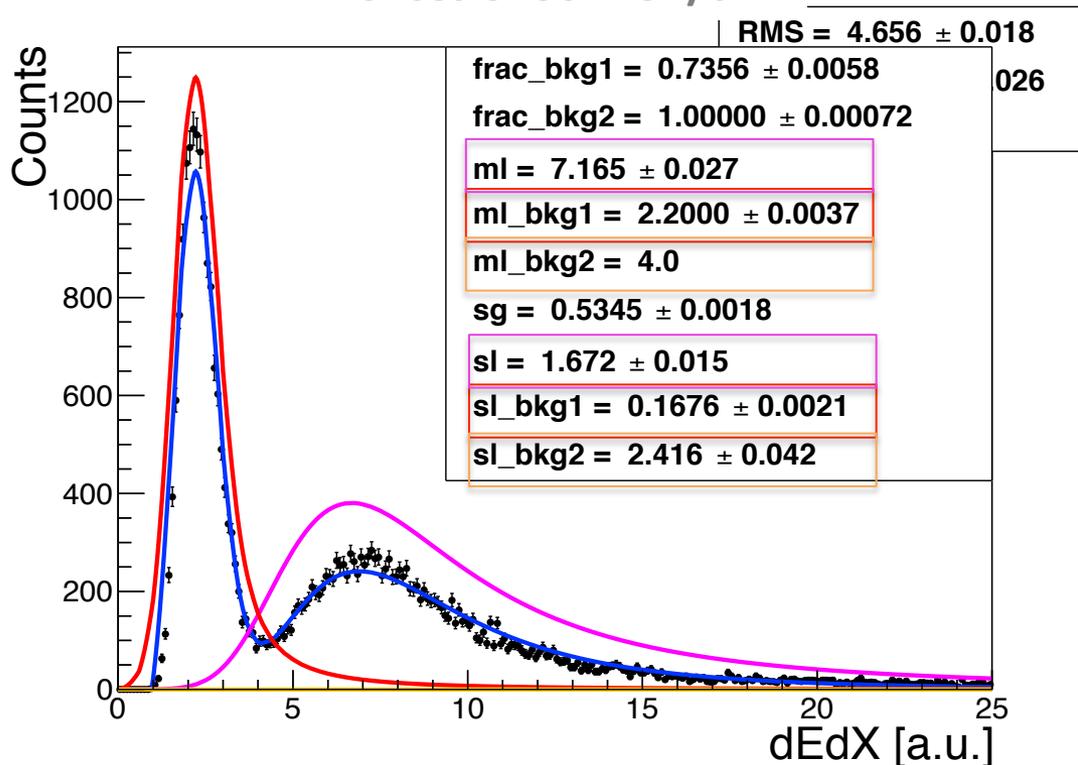
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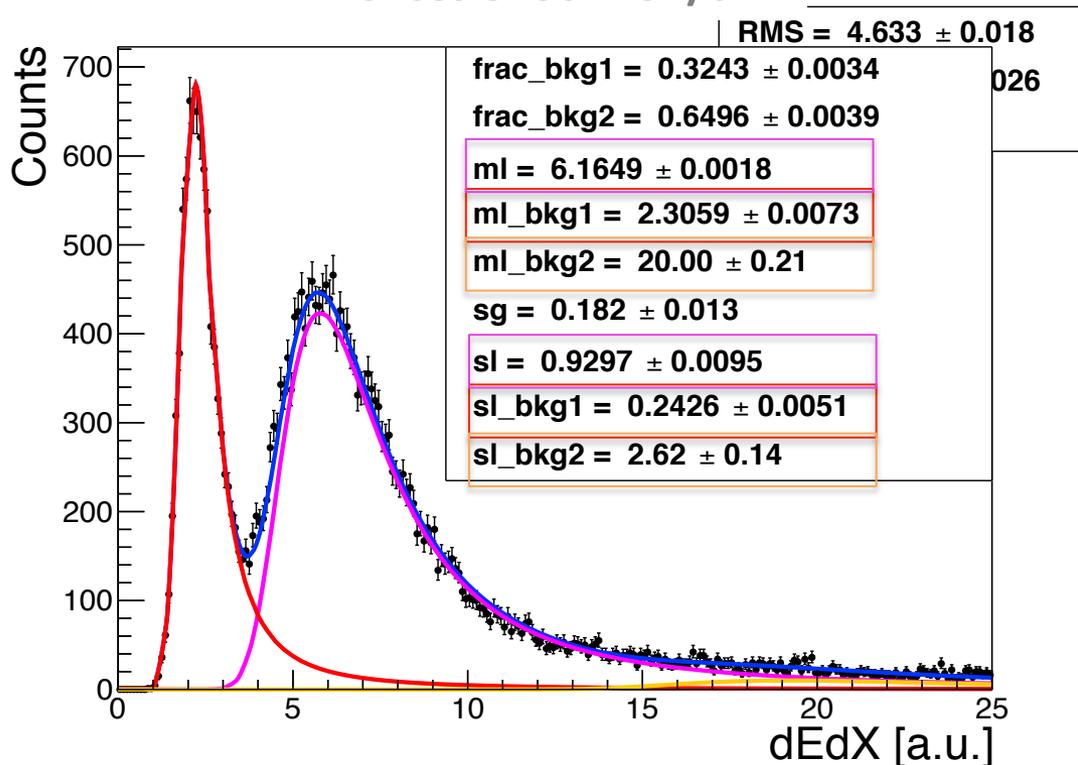


Kaons not well fitted

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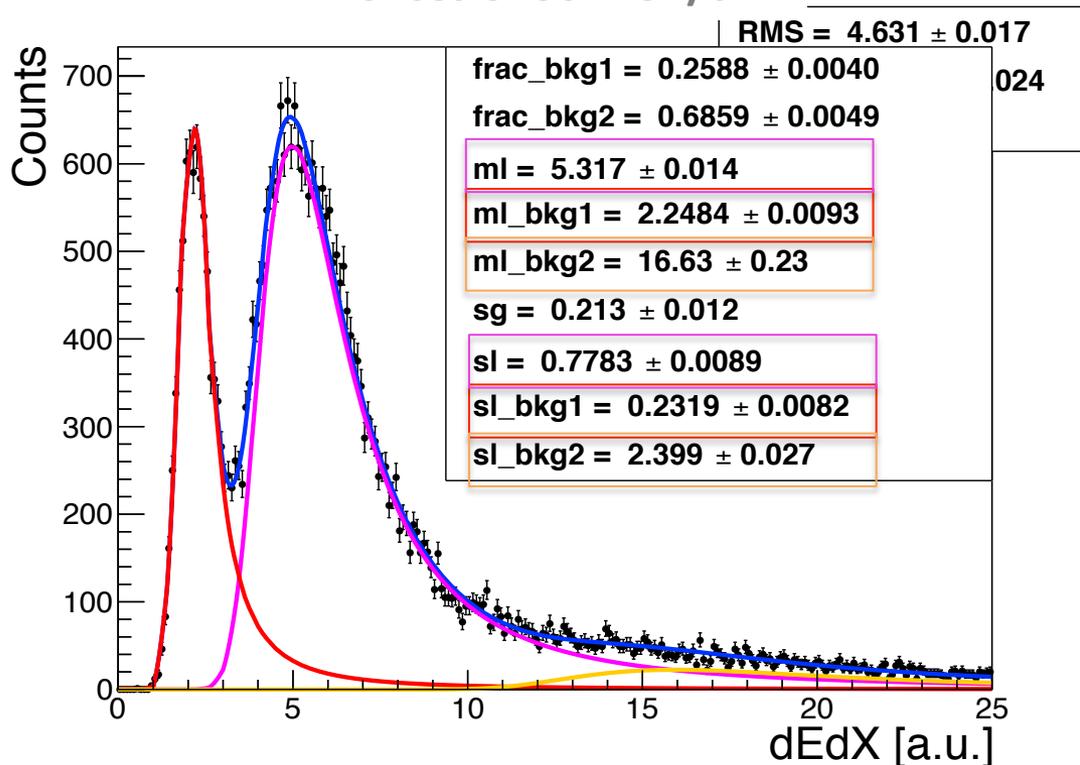
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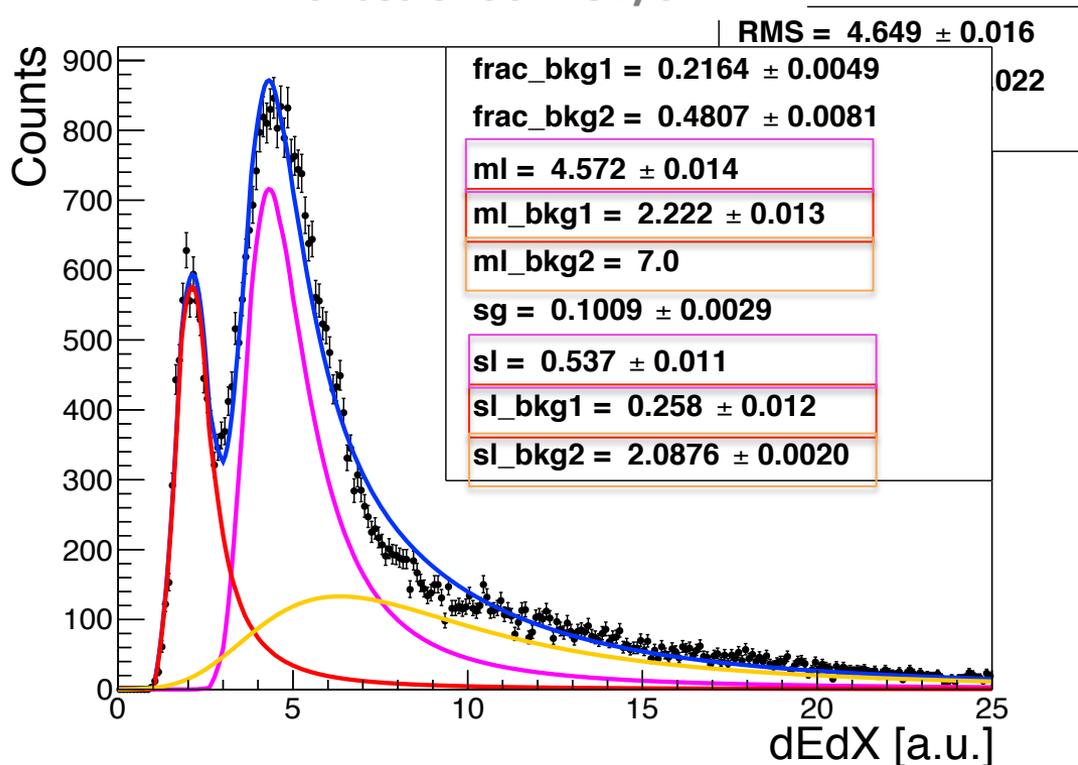
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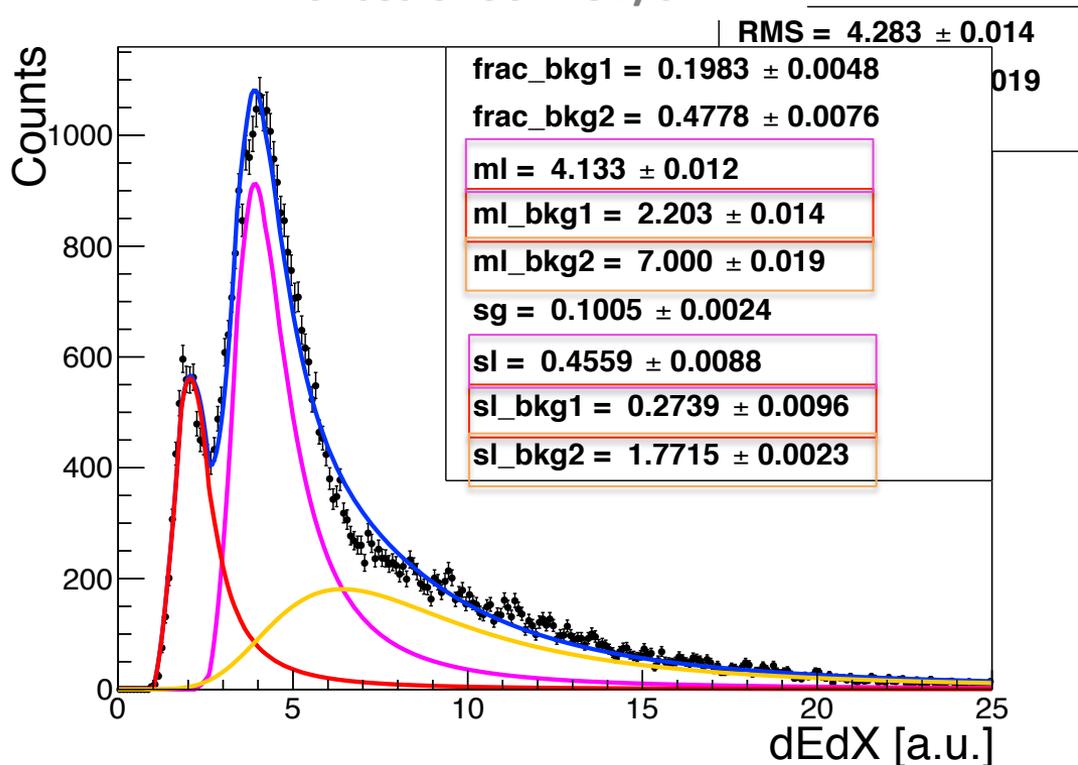


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Mean value to low

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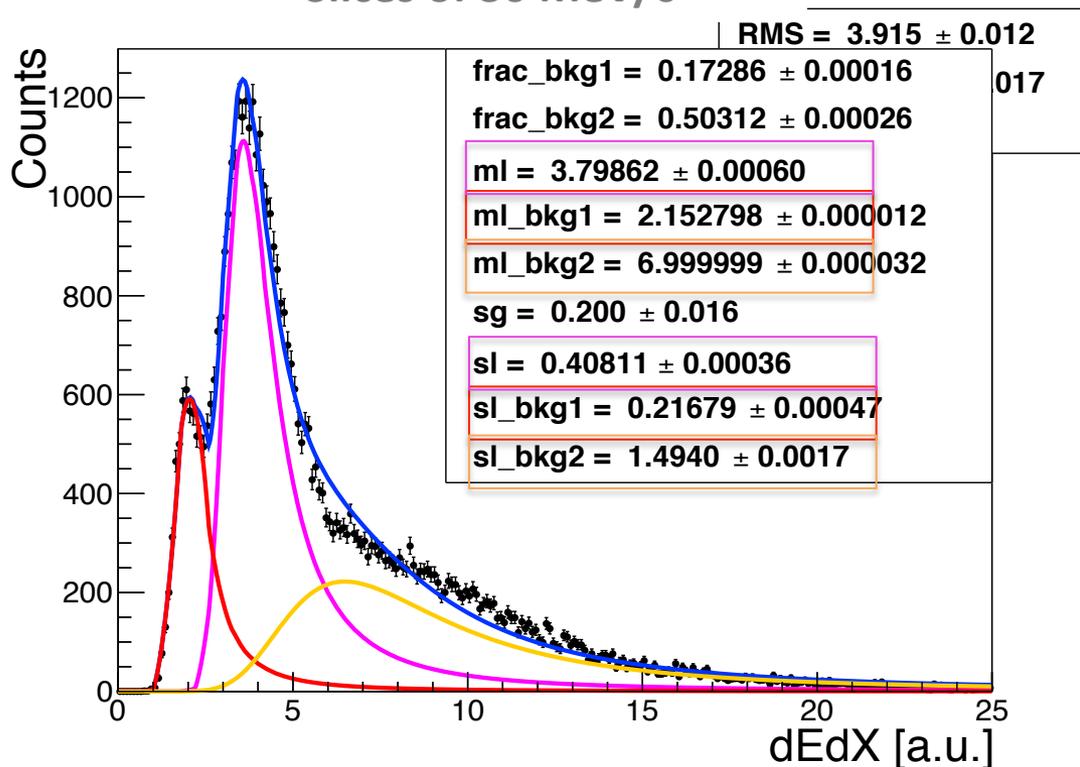


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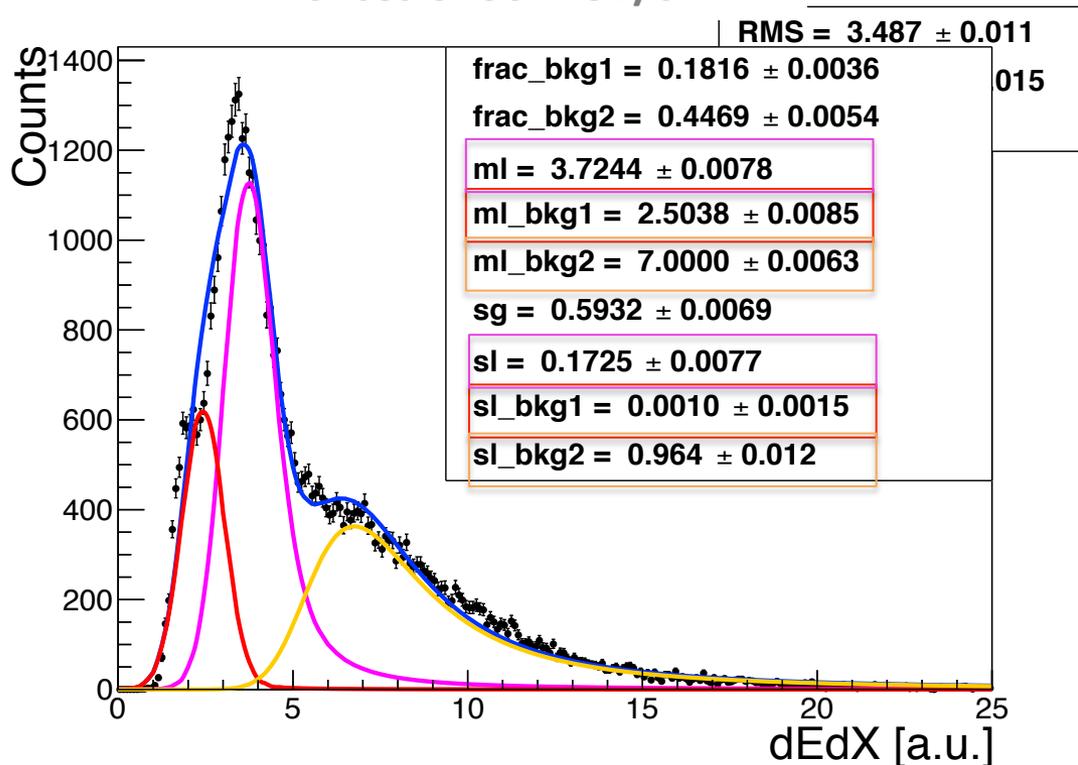


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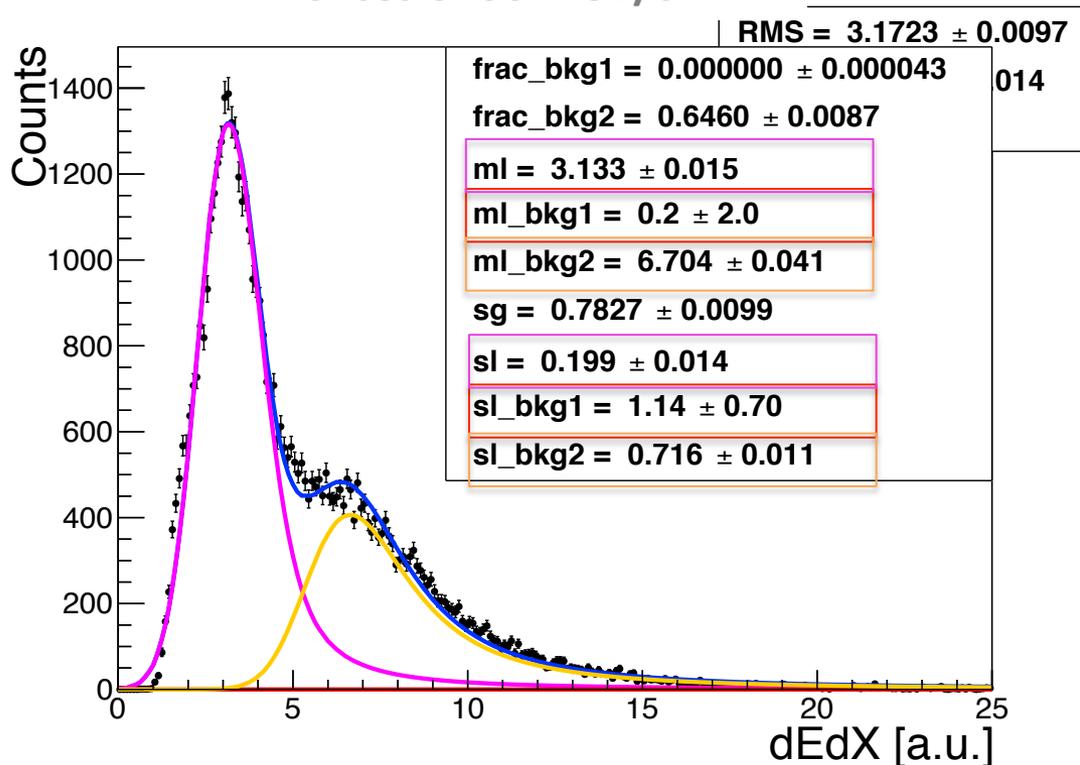
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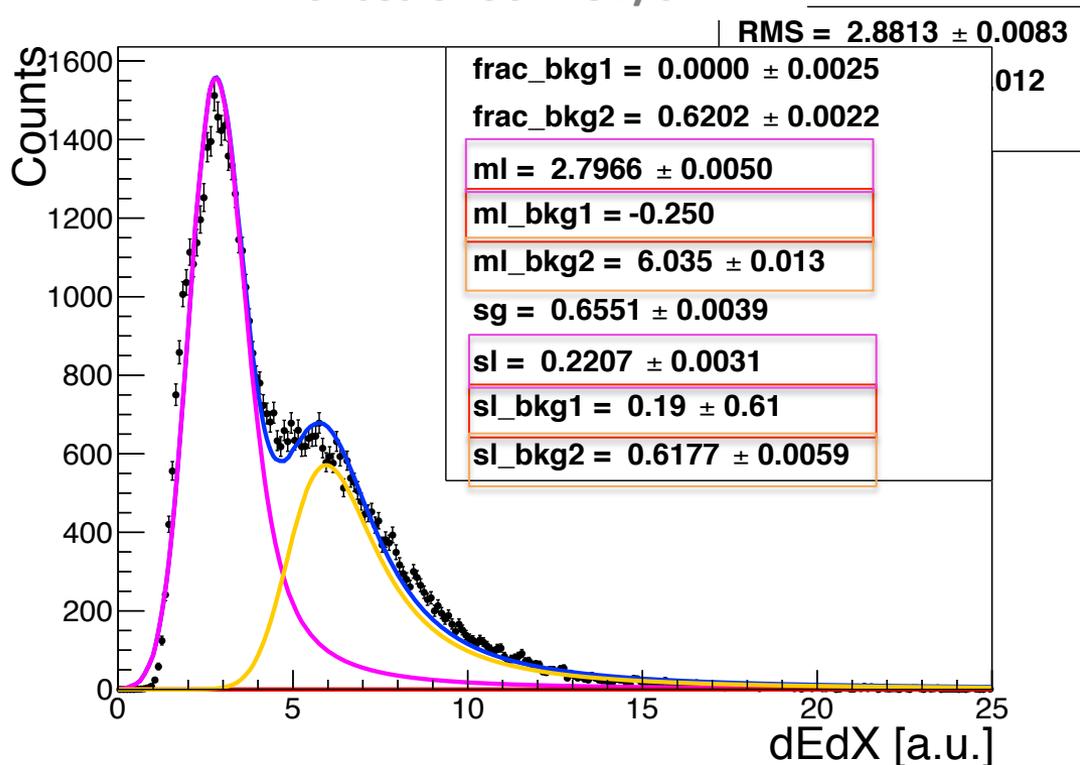
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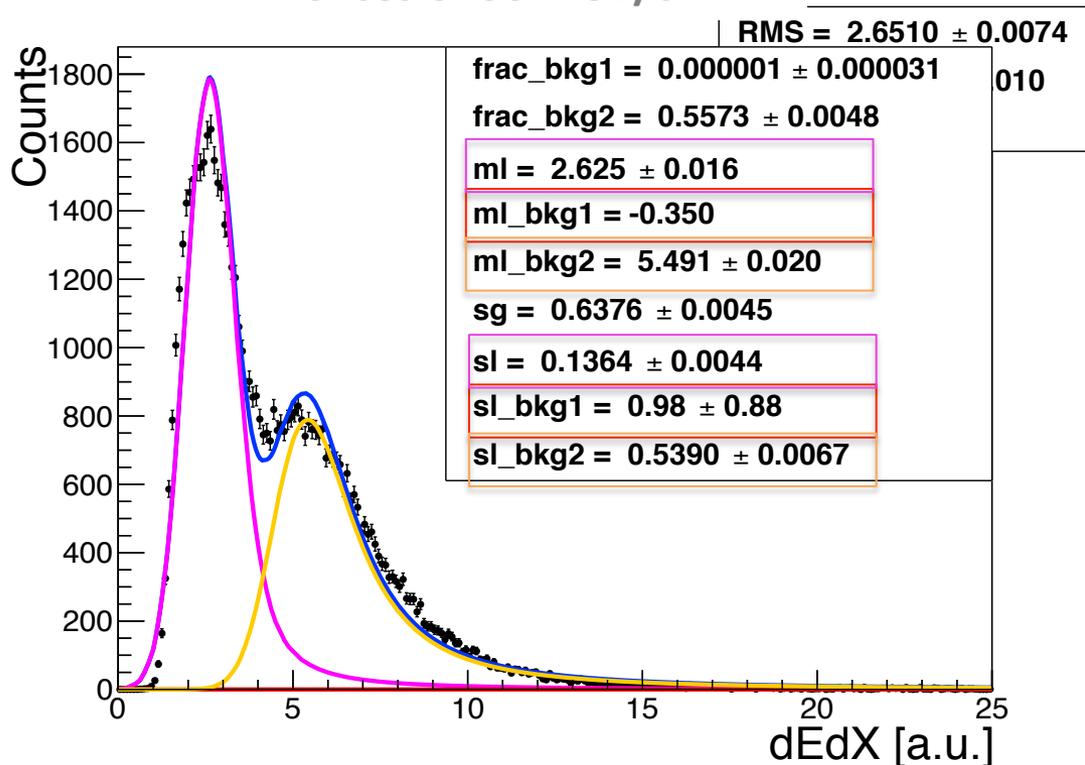


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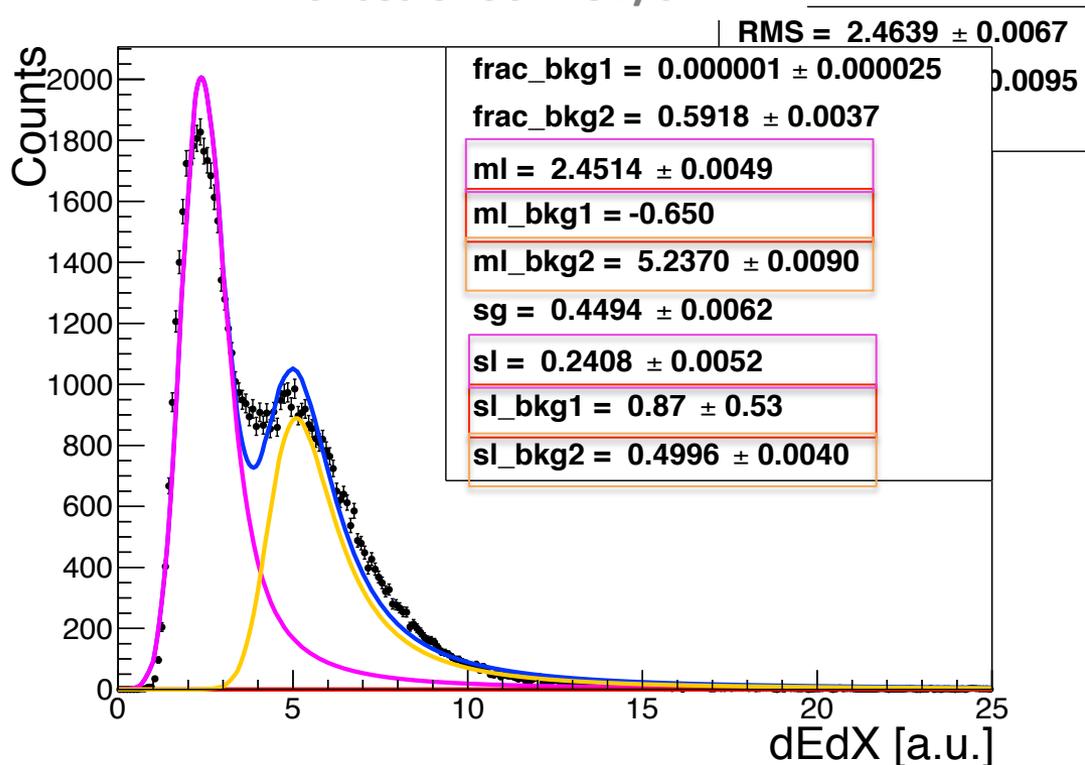


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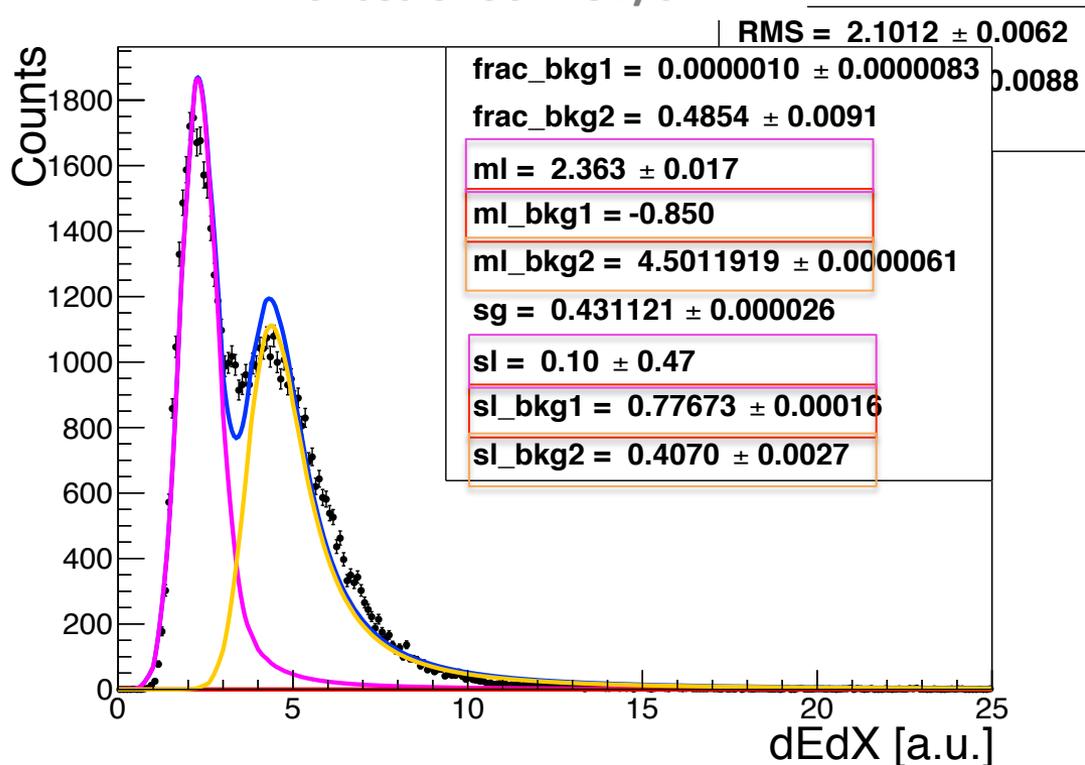


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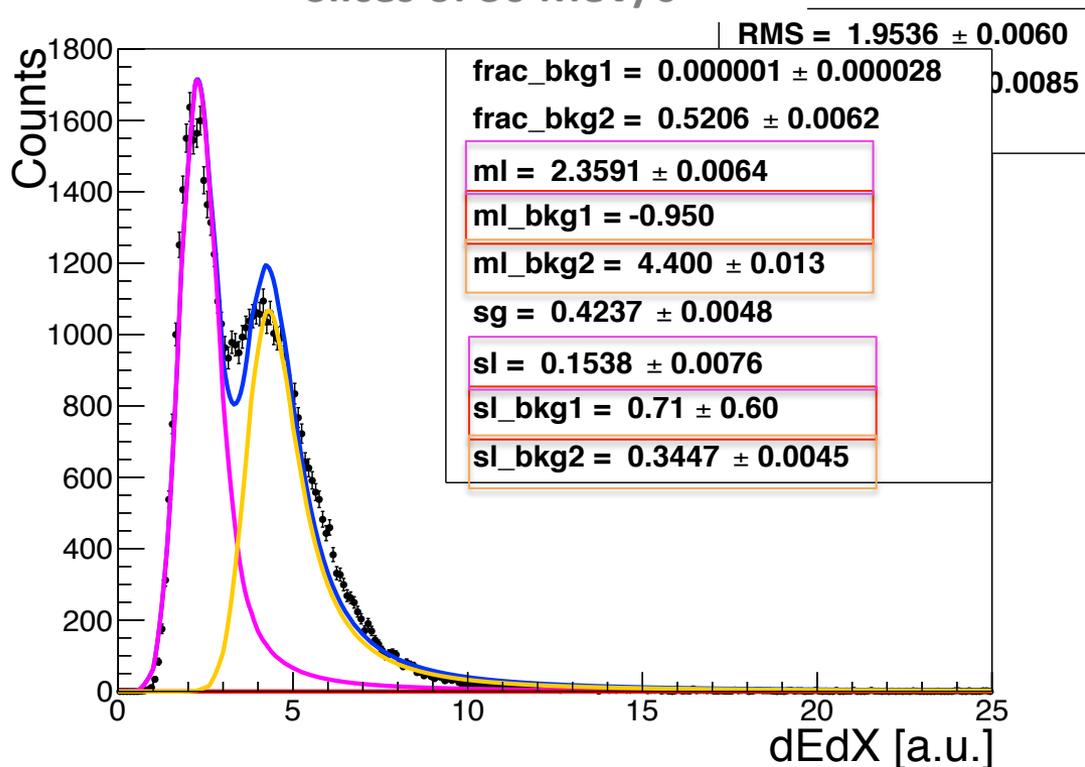


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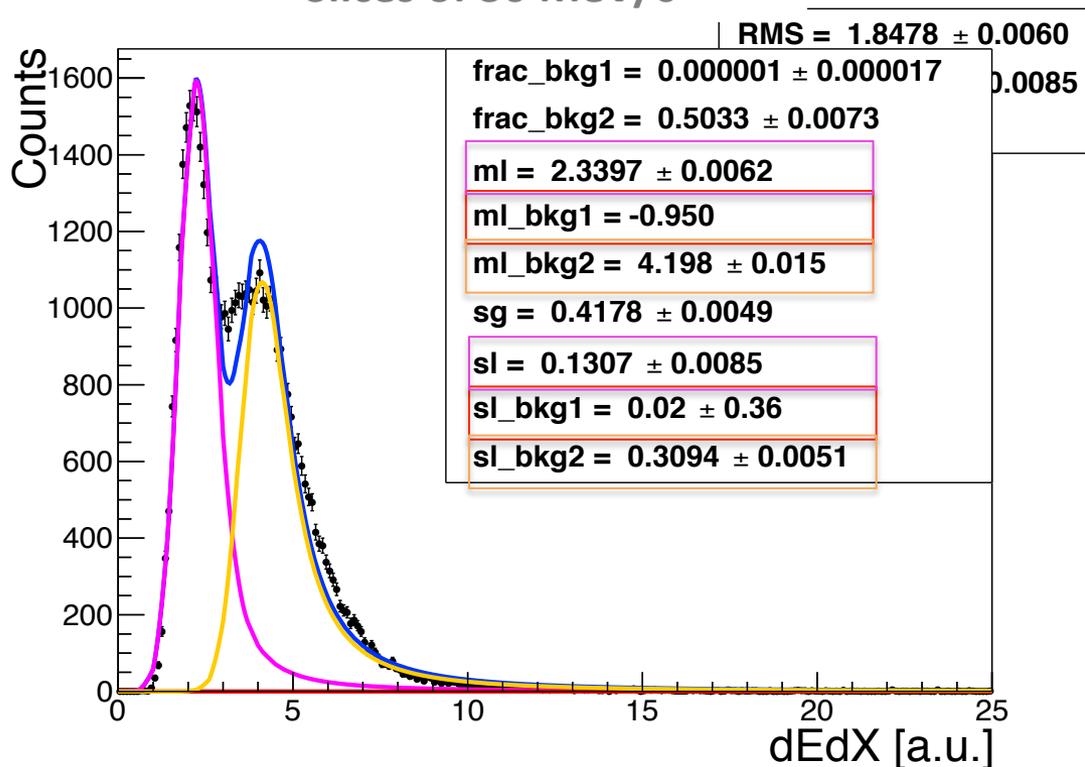


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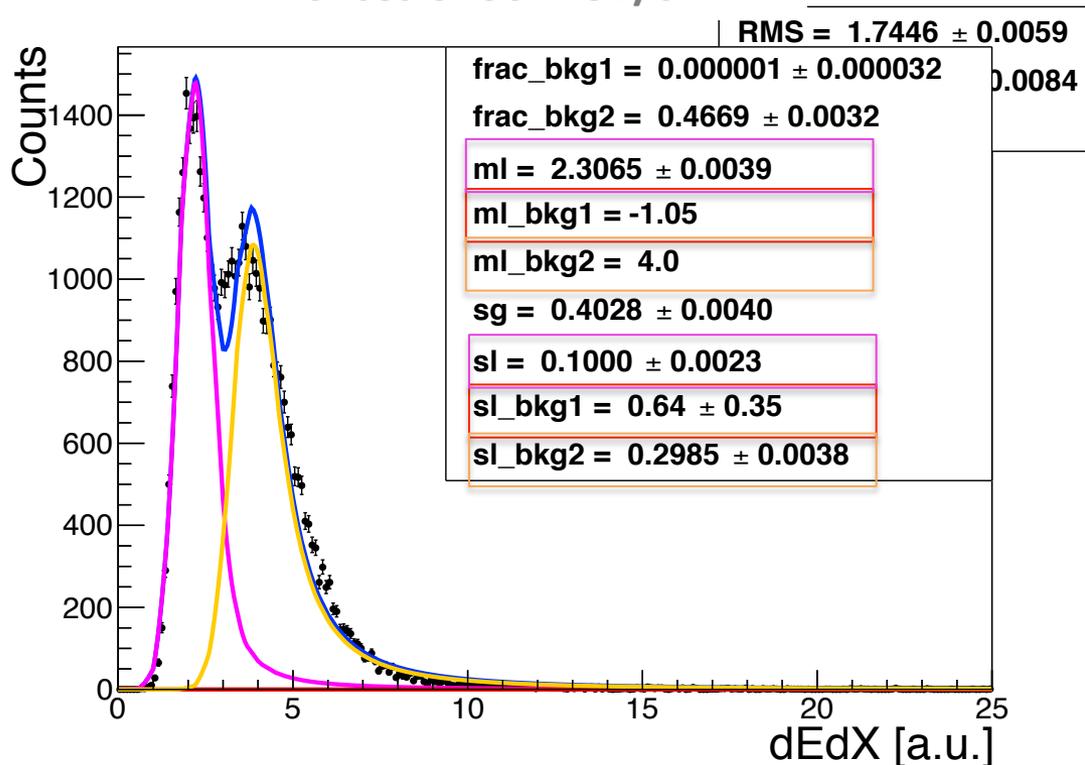


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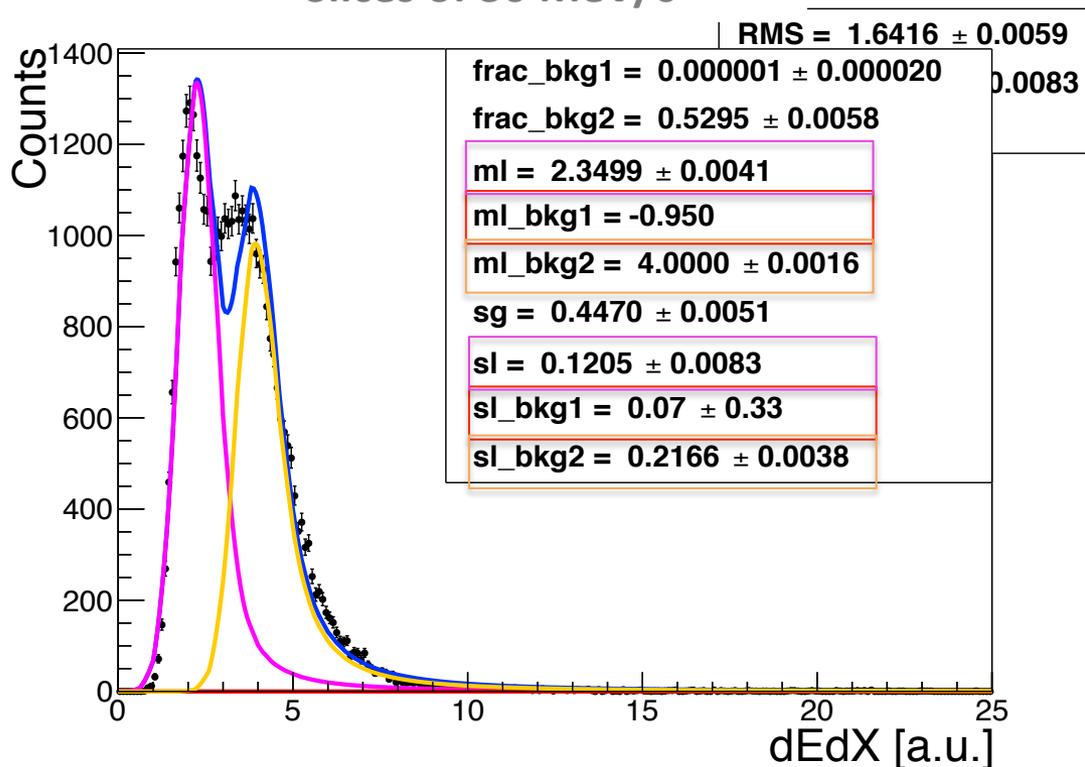


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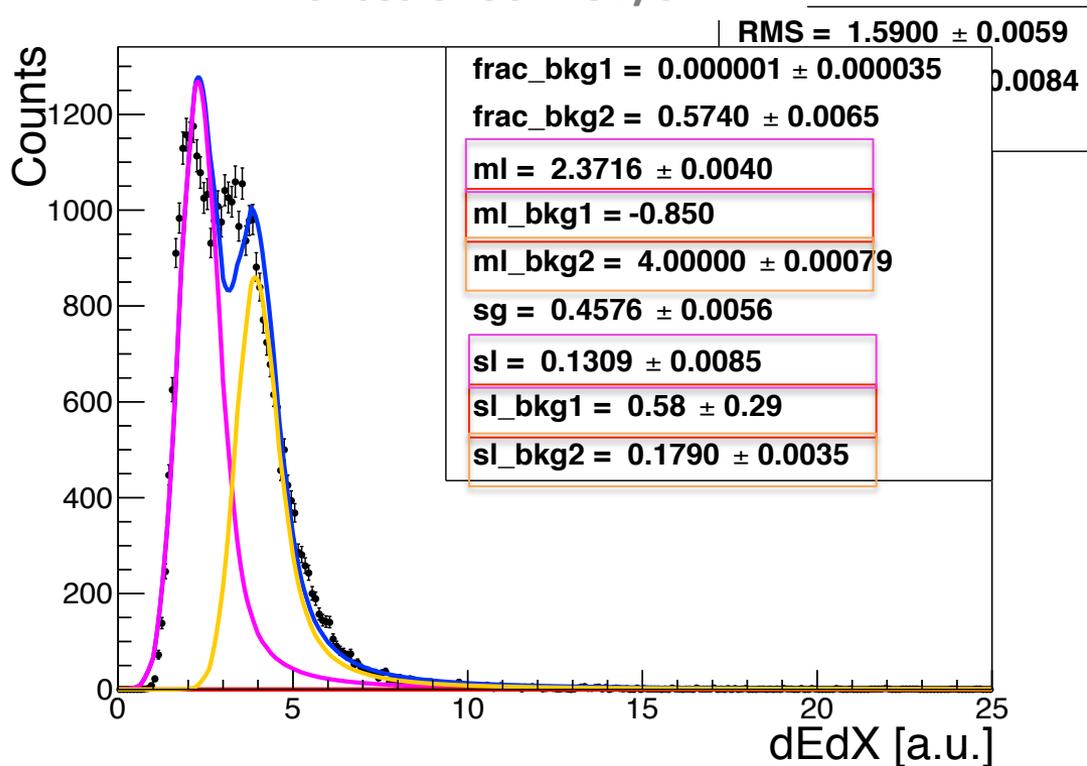


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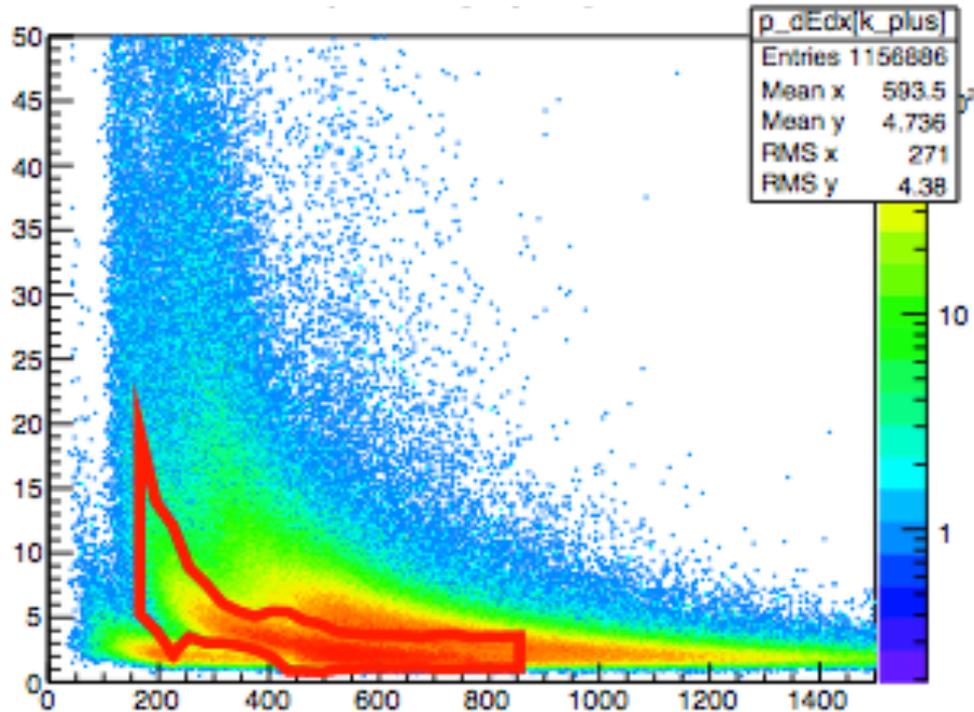


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Summary & Outlook

PID Selection:

- Selection based on **Langauss: Simultaneous fit of π^+ , K^+ , p**
- **Improvement of the fits needed**
- **SIM data not yet fitted**