

Selection for

$$\Lambda_b \rightarrow \Lambda_c^* \ell \nu$$



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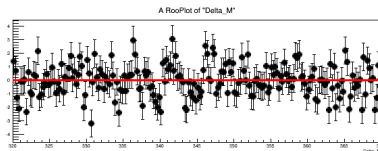
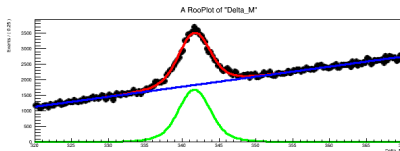


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July 18, 2016

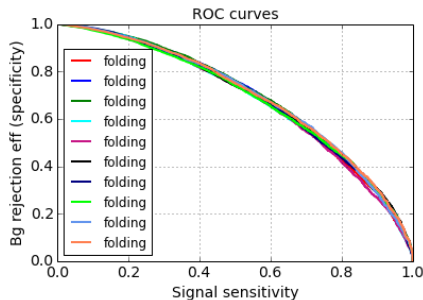


- The lower $\Lambda_c(2595)$ has quite an unstable fit.
- Optimise the selection or the $\Lambda_c(2625)$ where we control everything.
- Here I used a very simple preselection: Trigger + ($\text{Lambda}_{b0_M} < 5619$ and $\text{Delta_M} > 320$ and $\text{Delta_M} < 390$ and $\text{Lambda}_{c_M} > 2260$ and $\text{Lambda}_{c_M} < 2325$)

Training

- Signal: Splotted $\Lambda_c(2625)$.
- Background (discuss here): For now I have used the upper (Δ_M) for background approximation.
- Variables: Lambda_c_STAR_ENDVERTEX_CHI2,
Lambda_c_IPCHI2_OWNPV, Lambda_c_STAR_IPCHI2_OWNPV,
Lambda_c_FD_OWNPV, Lambda_c_STAR_FD_OWNPV,
Lambda_c_FDCHI2_OWNPV, Lambda_c_STAR_FDCHI2_OWNPV,
K_Lc_PT, pi_Lc_PT
- So the same as Anna minus the PID!

Training



- Will be repeated once I get new ntuples from Elena.
- But now the ROCs do not look to bad.

Backup