

Fitter update



Marcin Chrzaszcz
mchrzasz@cern.ch

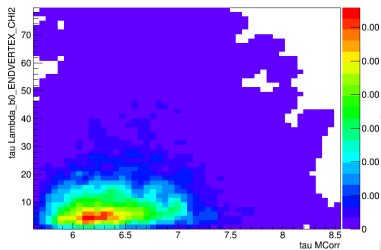
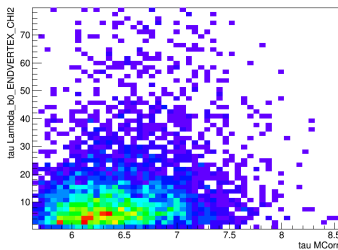
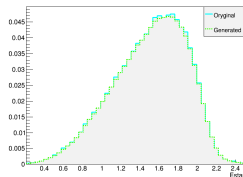
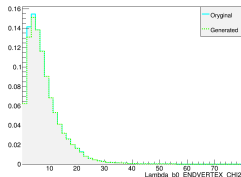
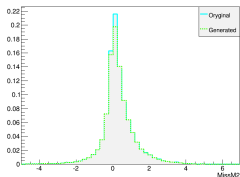


University of
Zurich^{UZH}

$R(\Lambda_c^*)$ meeting, CERN
June 20, 2016

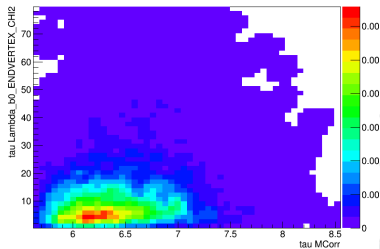
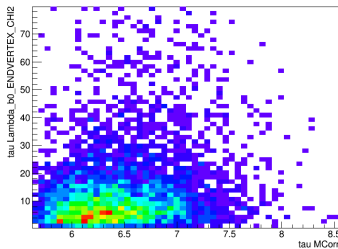
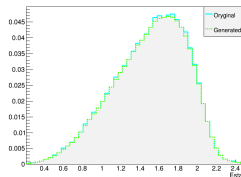
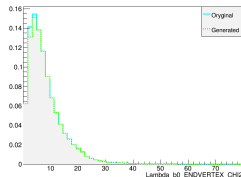
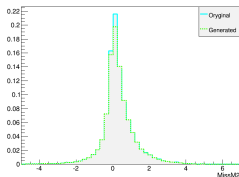
Reminder

⇒ We use the Kernel Density to get the pdf to simulate 50M events for each sample.



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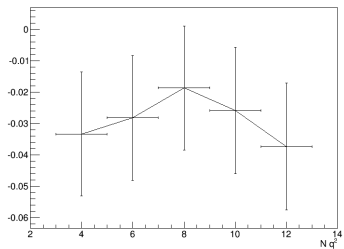
Initial parameters

- ⇒ Template size : 2000000 (for each μ and τ samples).
- ⇒ Each toy: 20000 events in total.
- ⇒ Tested couple of values of $\mathcal{R}(\Lambda_c^*) = 1, 0.(3) 0.25, 0.(21).$
- ⇒ Used 2500 toys for each scanned binning:

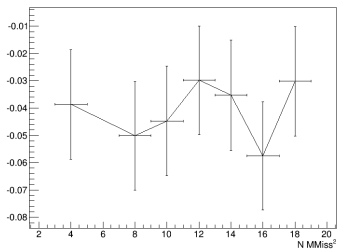
q^2	4 6 8 10 12 14
M_{miss}^2	4 8 10 12 14 16 18 20
E_ℓ^2	4 8 10 12 14 16 18 20

Results $R(\Lambda_c^*) = 0.25$

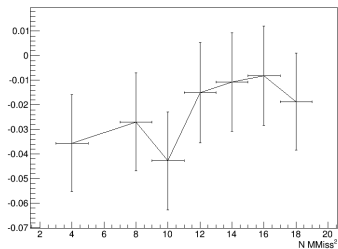
mm2_18_El_12



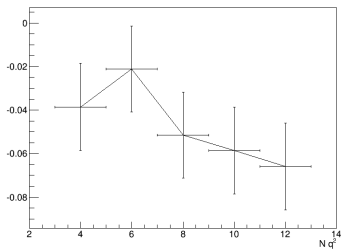
q2_4_El_14



q2_8_El_12

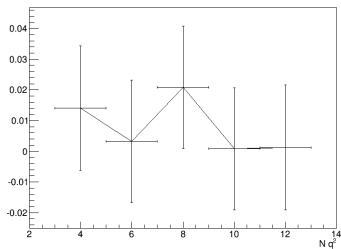


mm2_4_El_14

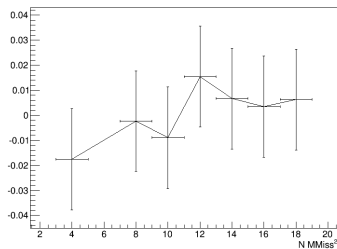


Results $R(\Lambda_c^*) = 1.0$

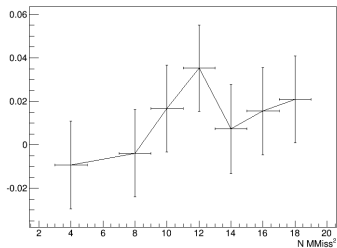
mm2_18_El_12



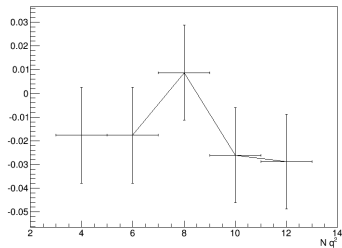
q2_4_El_14



q2_8_El_12

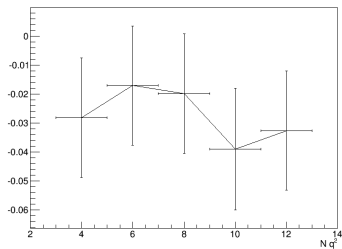


mm2_4_El_14

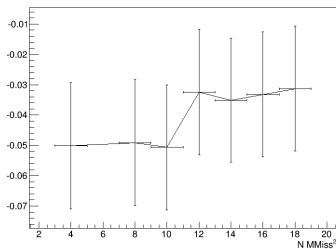


Results $R(\Lambda_c^*) = 1/3$

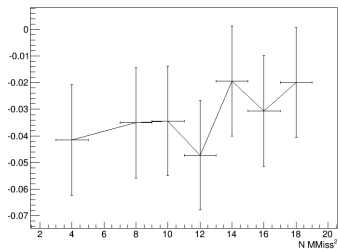
mm2_18_EI_12



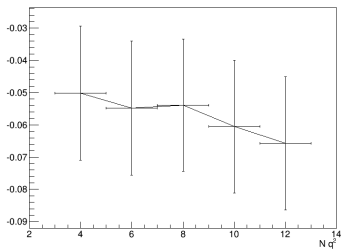
q2_4_EI_14



q2_8_EI_12

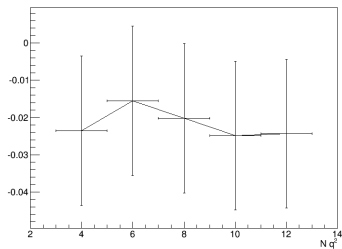


mm2_4_EI_14

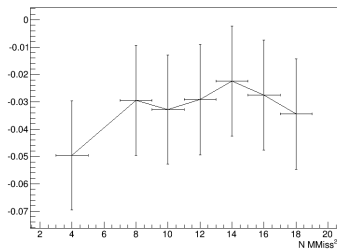


Results $R(\Lambda_c^*) = 0.(21)$

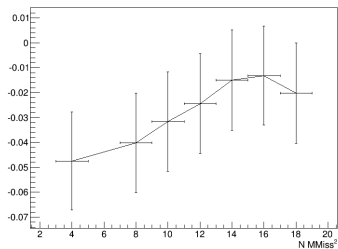
mm2_18_El_12



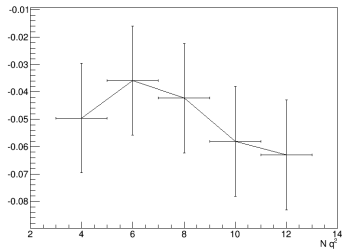
q2_4_El_14



q2_8_El_12



mm2_4_El_14



Conclusions

- ⇒ So fit works!
- ⇒ The previously observed bias was due to the fact of empty bin treatment!
- ⇒ Now working on selection to know how much background we have so we can add it into the toys.

