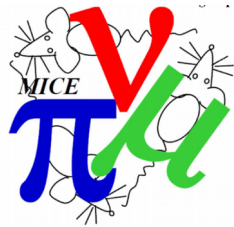


System performance paper

P. Franchini



3rd review meeting
June, 11 2020



- Merged several runs to obtain a full spectra for each Ckov
- PID using just TOF01 prone to contamination
- Use instead velocity or β
- Subtracting N0 (background NPEs before the turn on point) for each run
- Using where possible the electron TOF

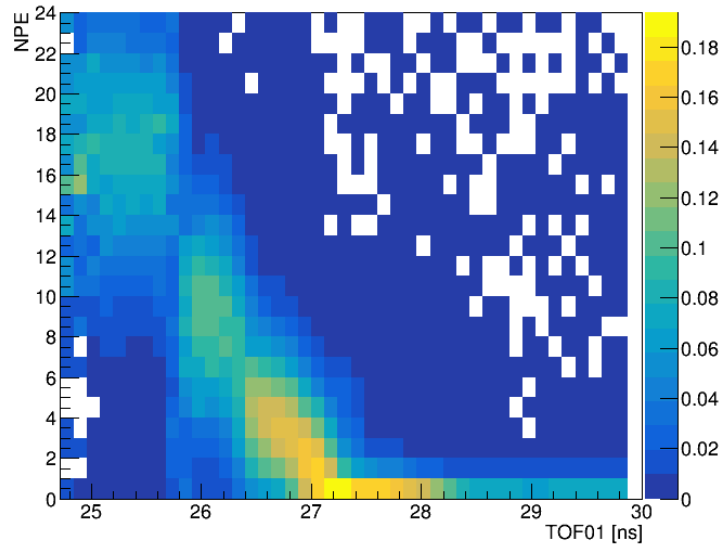


- N0 background is ~ 1 NPE for most of the runs
- Electron TOF01 is pretty much consistent across runs
- Other effects:
 - Different path length in the CKOVs
 - Delta rays for different momenta

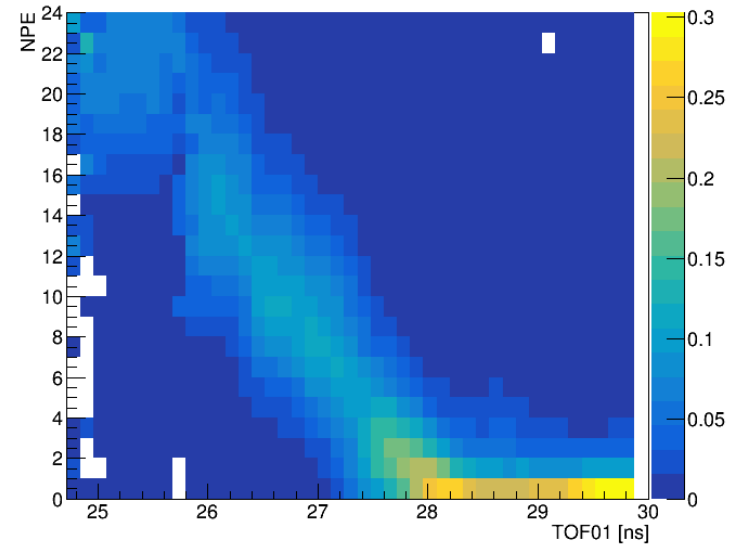
TOF01



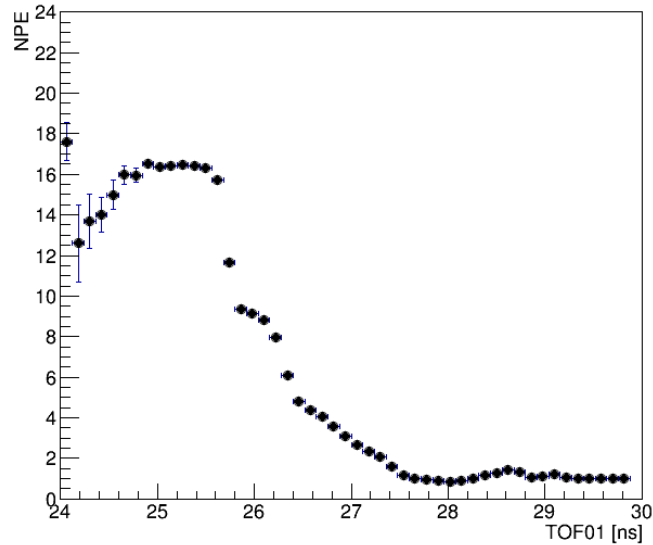
NPE vs TOF01 - CkovA



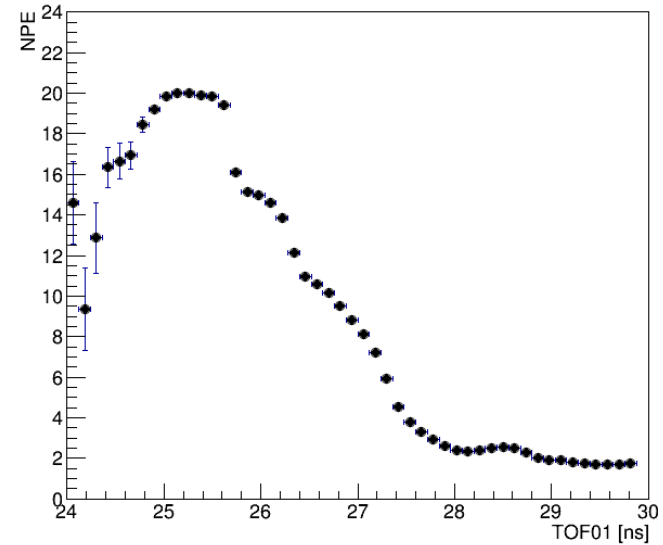
NPE vs TOF01 - CkovB



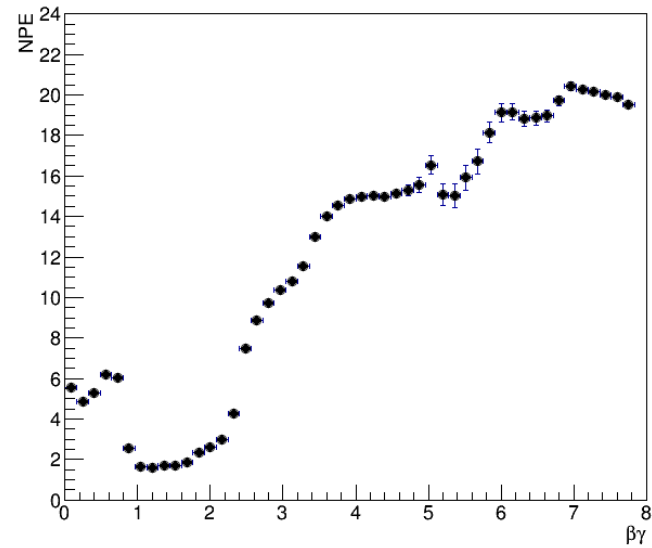
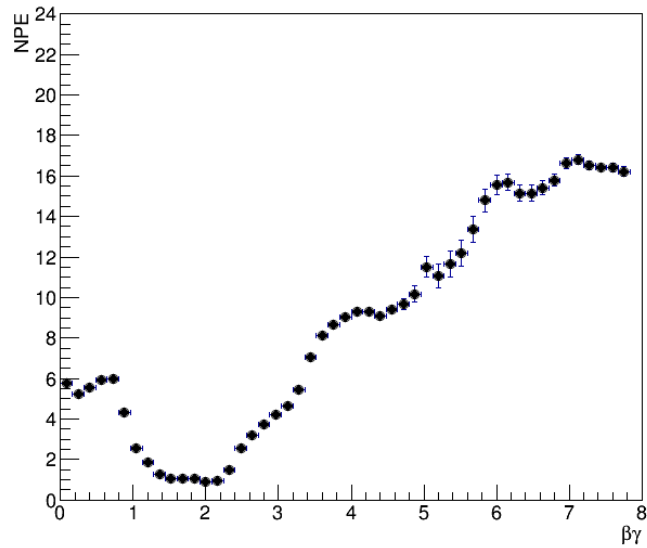
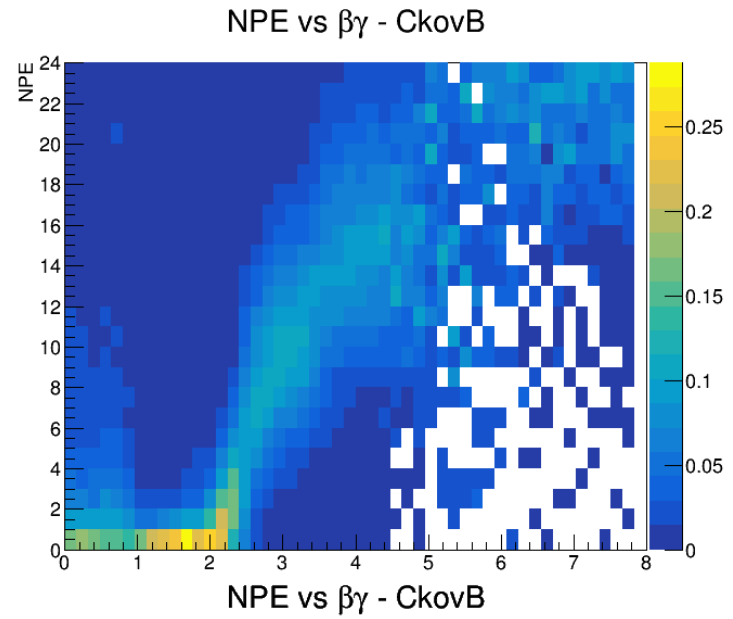
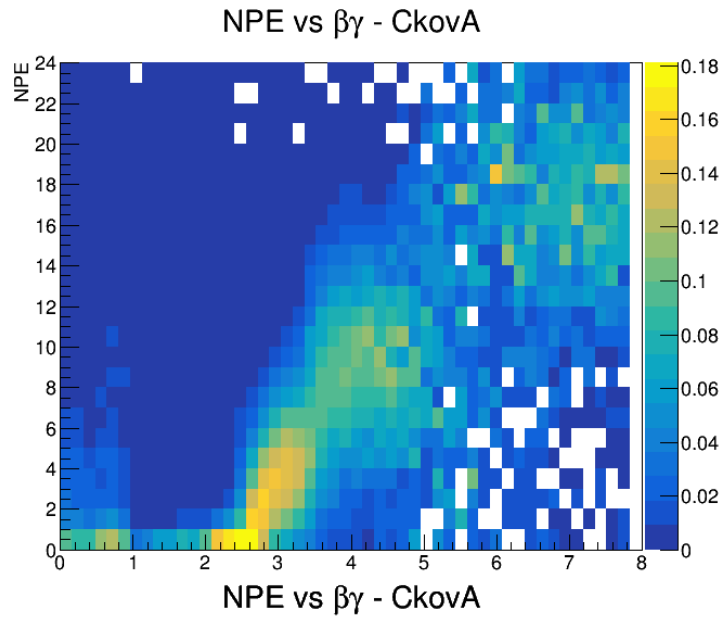
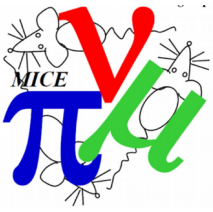
NPE vs TOF01 - CkovA



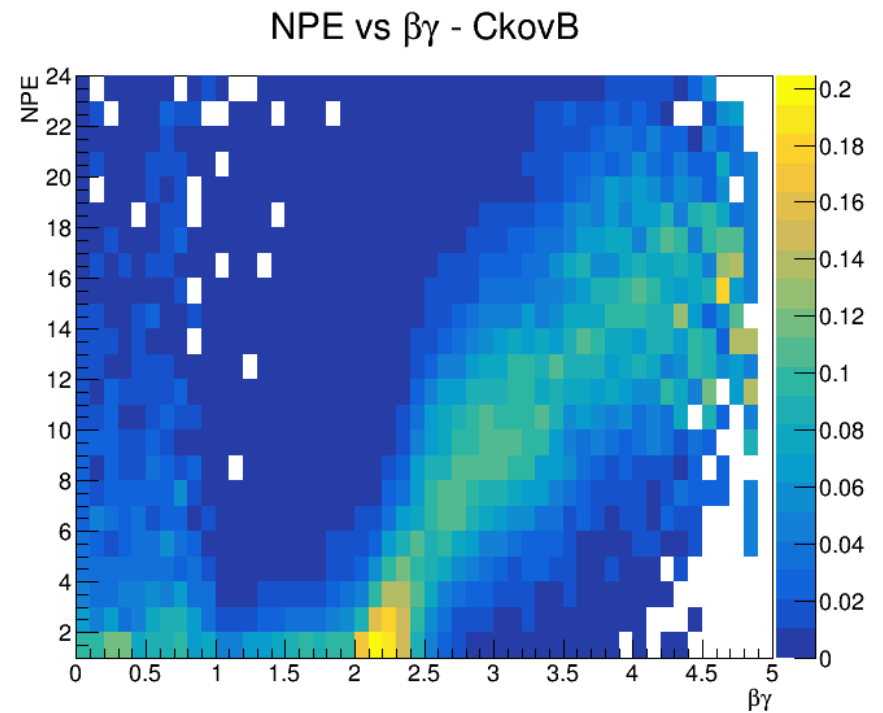
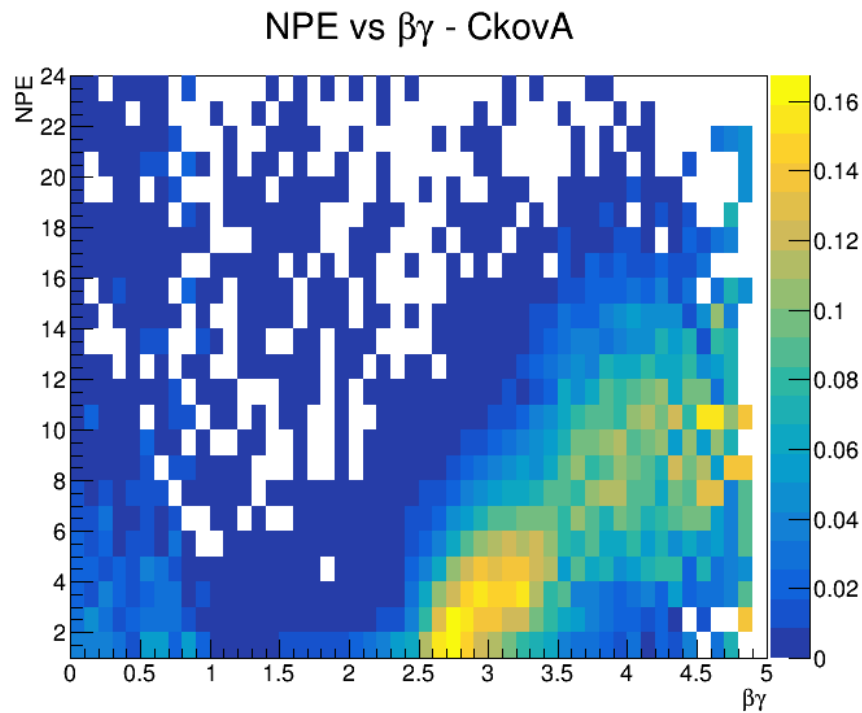
NPE vs TOF01 - CkovB



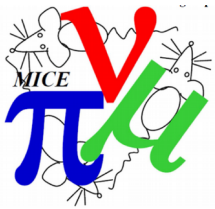
$\beta\gamma$



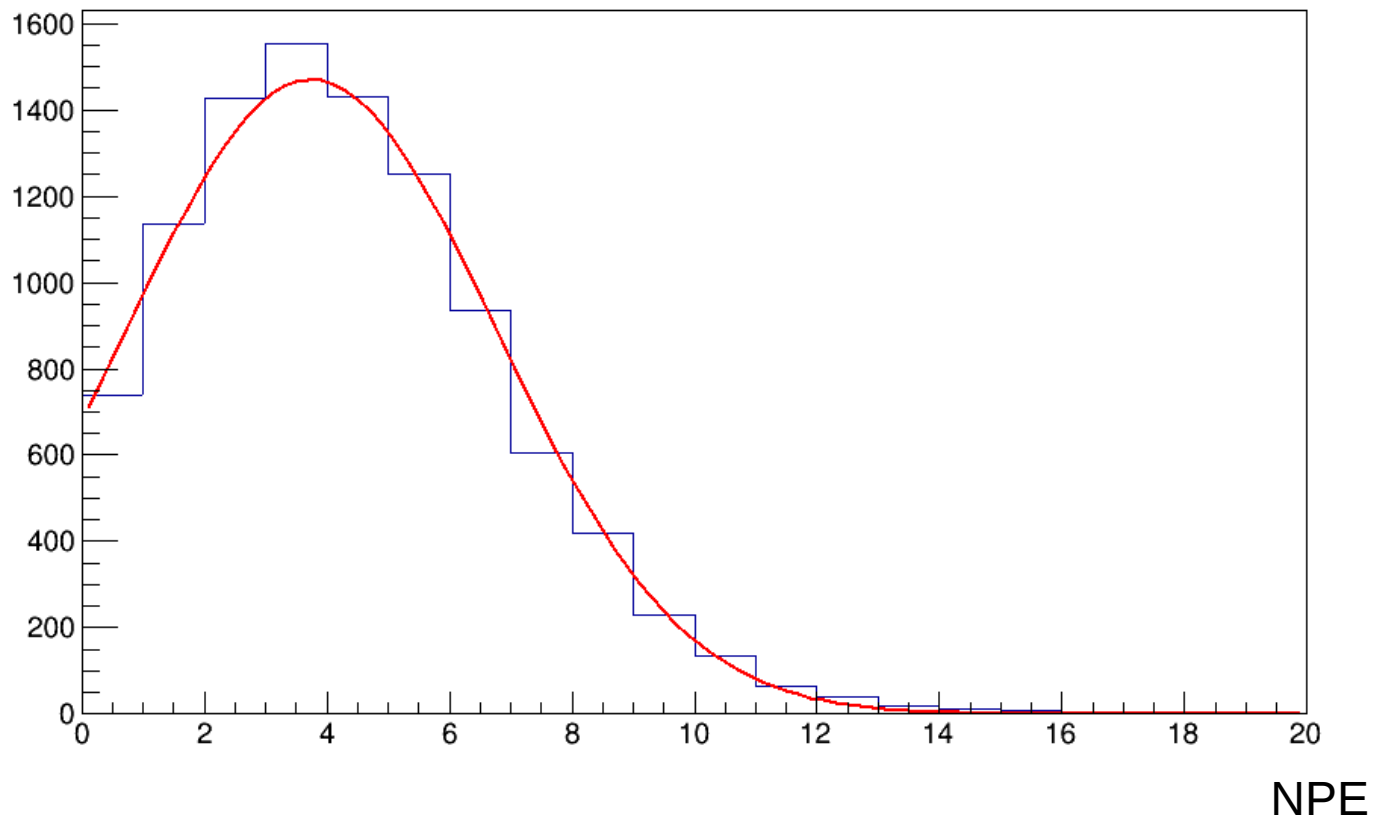
- Zoom in (with limited statistic)



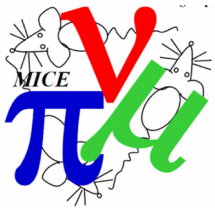
$\beta\gamma$



- Fit each $\beta\gamma$ bin with a Gaussian
- Example:

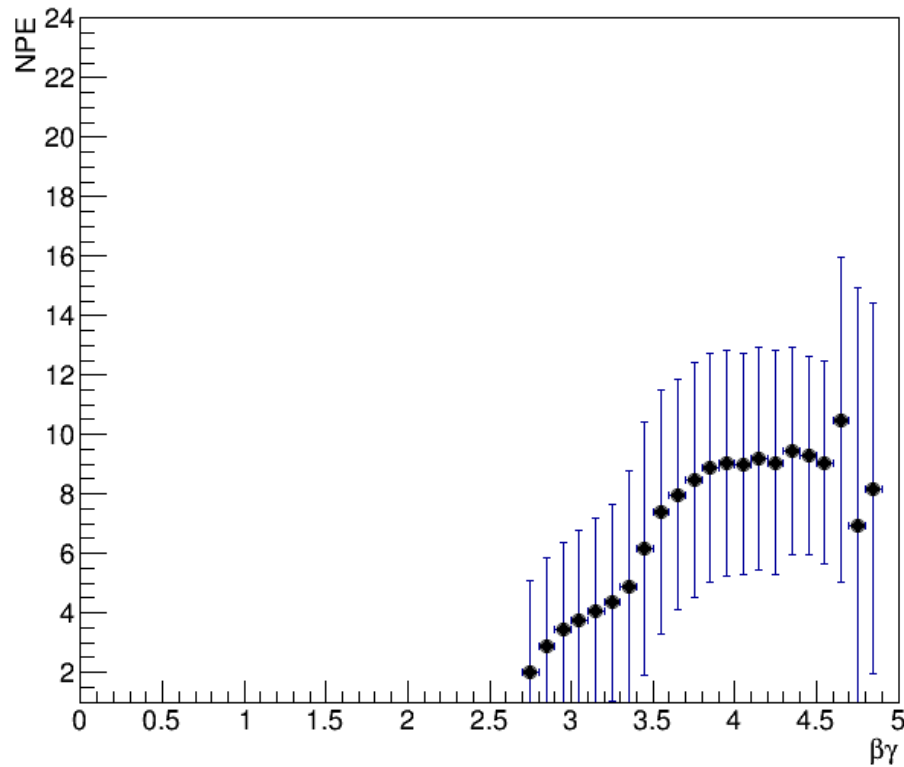


$\beta\gamma$

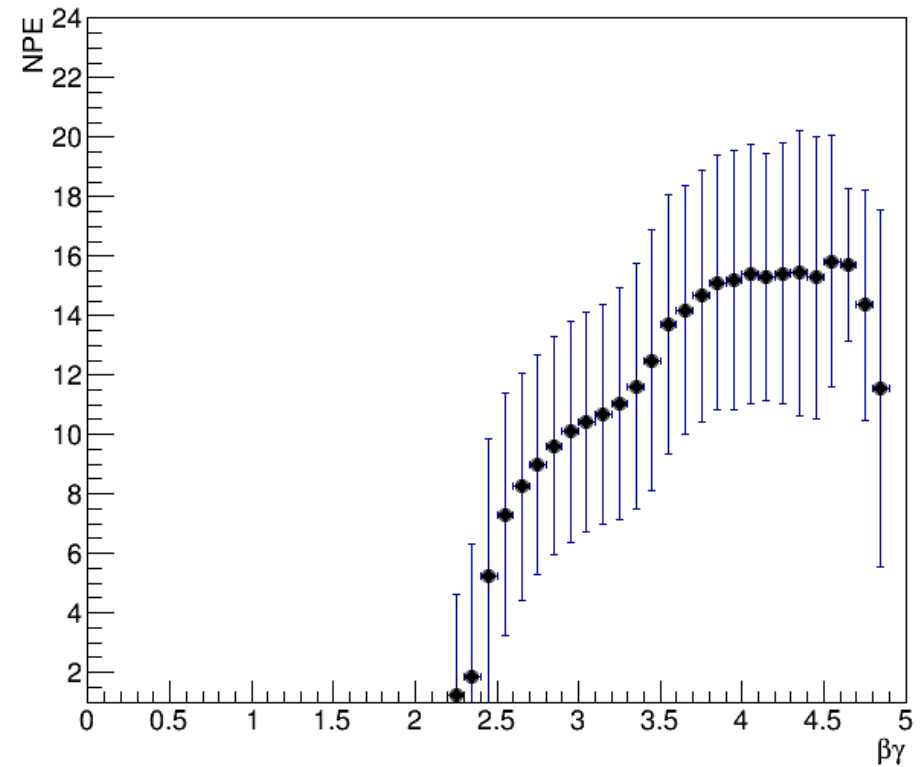


- Bumps still present (error bars are RMS)

NPE vs $\beta\gamma$ - CkovA



NPE vs $\beta\gamma$ - CkovB



- Proposal to use a polished version of this in the paper

