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efficiency correction for protons

Official L0Hadron efficiency correction tables cannot be applied for protons in the final state. See details in [this talk](#).

Alternative corrections are obtained from the Lambda_b -> Lambda_c pi, Lambda_c -> p K pi sample. These are provided in the form of ROOT histograms. For uniformity, the similar ROOT files are given here for "official" correction tables (rather than text files on the page above) and for MC Lambda_b -> Lambda_c Pi sample. Example script to add this efficiency correction to MC tuple is also attached:

- "Official" tables
 - ◆ `eff_[particle]_[year]_[polarity]_[sign]` - efficiency as a function of Pt (MeV)
- MC tables
 - ◆ `effsim_[particle]_[year]_[polarity]_[sign]` - efficiency as a function of Pt (MeV)
 - ◆ `tis_[particle]_[year]_[polarity]_[sign]` - Pt distribution of TIS events
 - ◆ `tistos_[particle]_[year]_[polarity]_[sign]` - Pt distribution of TIS&TOS events
- Tables from Lambda_b -> Lambda_c pi
 - ◆ `efflb_[particle]_[year]_[polarity]_[sign]` - efficiency as a function of Pt (MeV)
 - ◆ `tis_[particle]_[year]_[polarity]_[sign]` - Pt distribution of TIS events
 - ◆ `tistos_[particle]_[year]_[polarity]_[sign]` - Pt distribution of TIS&TOS events
 - ◆ `eff_dens_[particle]_[year]_[polarity]_[sign]` - *smoothed* efficiency as a function of Pt (MeV)
 - ◆ `tis_dens_[particle]_[year]_[polarity]_[sign]` - *smoothed* Pt distribution of TIS events
 - ◆ `tistos_dens_[particle]_[year]_[polarity]_[sign]` - *smoothed* Pt distribution of TIS&TOS events
- Example PyROOT script

Note that these tables are functions of track P_T rather than E_T (which is the recommended way to correct L0 efficiency) and are therefore less precise.

-- AntonPoluektov - 2015-12-02

This topic: LHCb > LbLcPiL0HadronCorrection
Topic revision: r1 - 2015-12-02 - AntonPoluektov



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