

# Run correction

- `vector<double> SQLRunCorrection(int runnum)`
  - Tracking eff
  - Trigger eff
  - Layer 1 & Layer 2 Electron eff.
  - Cerenkov Electron eff.
  - Total Non-electron rejection (“PID\_NE\_eff”)
  - Livetime
- Uses the MARATHONanalysis DB

# Total efficiency

name	PID_cer	PID_ps	PID_sh	PID_NE	Tracking	Trigger	livetime
eff	0.99714	0.993948	0.991138	0.999616	0.987001	0.999907	0.95347
err	0.000191	0.000829	0.000812	0.013924	0.00025	0	0.000317

Total Efficiency =  $\prod$  efficiency : Total Error =  $(\sum (\text{relative Errors})^2)^{(1/2)}$

Corrected yield = yield / efficiency

Including Non electron efficiency

Overall efficiency = Electron efficiency\*(1/PID\_NE\_eff)

Run 1222 (H kin1) eff = 0.912508 err = 0.00126829

Run 2251 (H kin15) eff = 0.967753 err = 0.00374786