

Accidental correction in PWA

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Q_i Quality Factor for event i

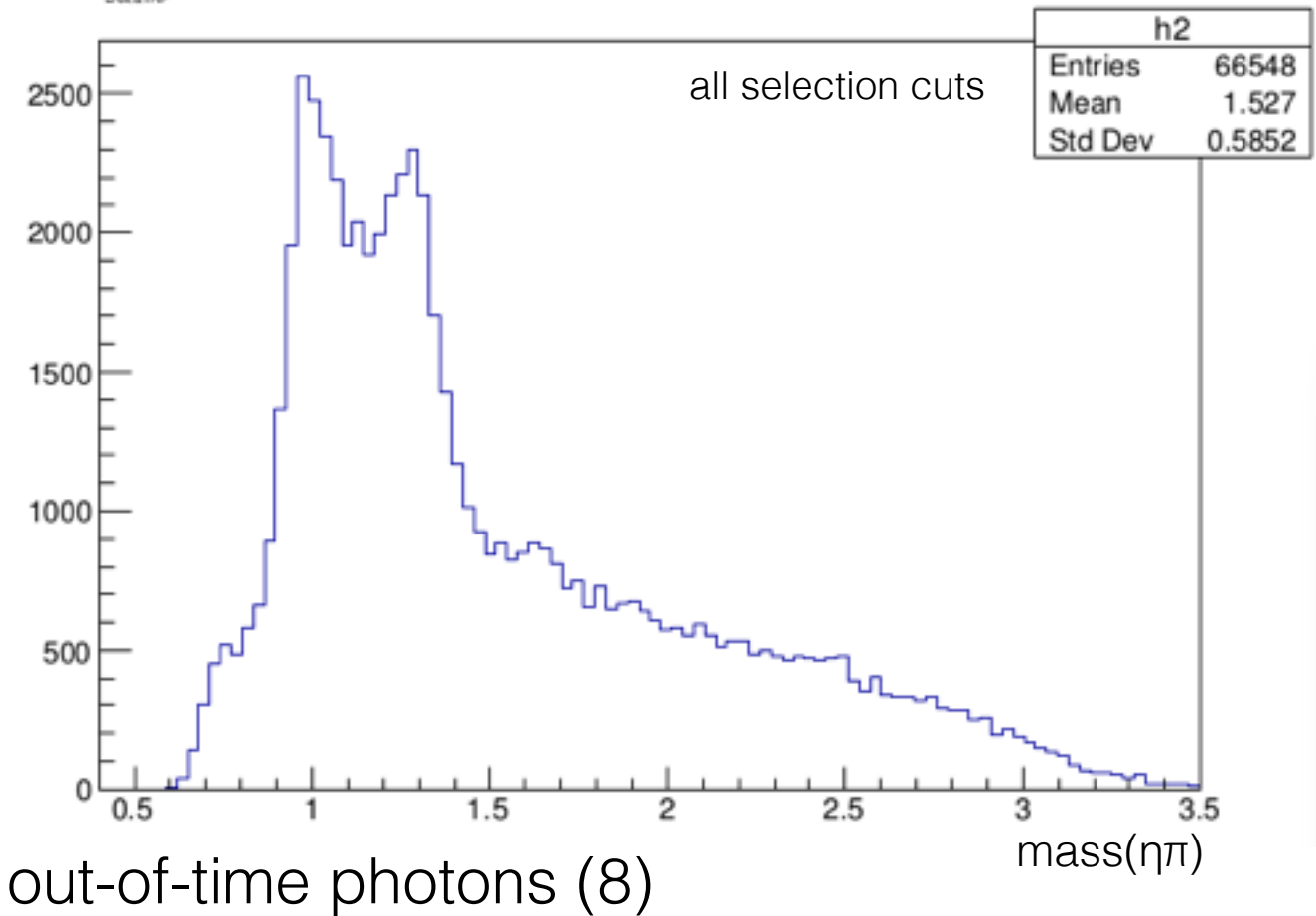
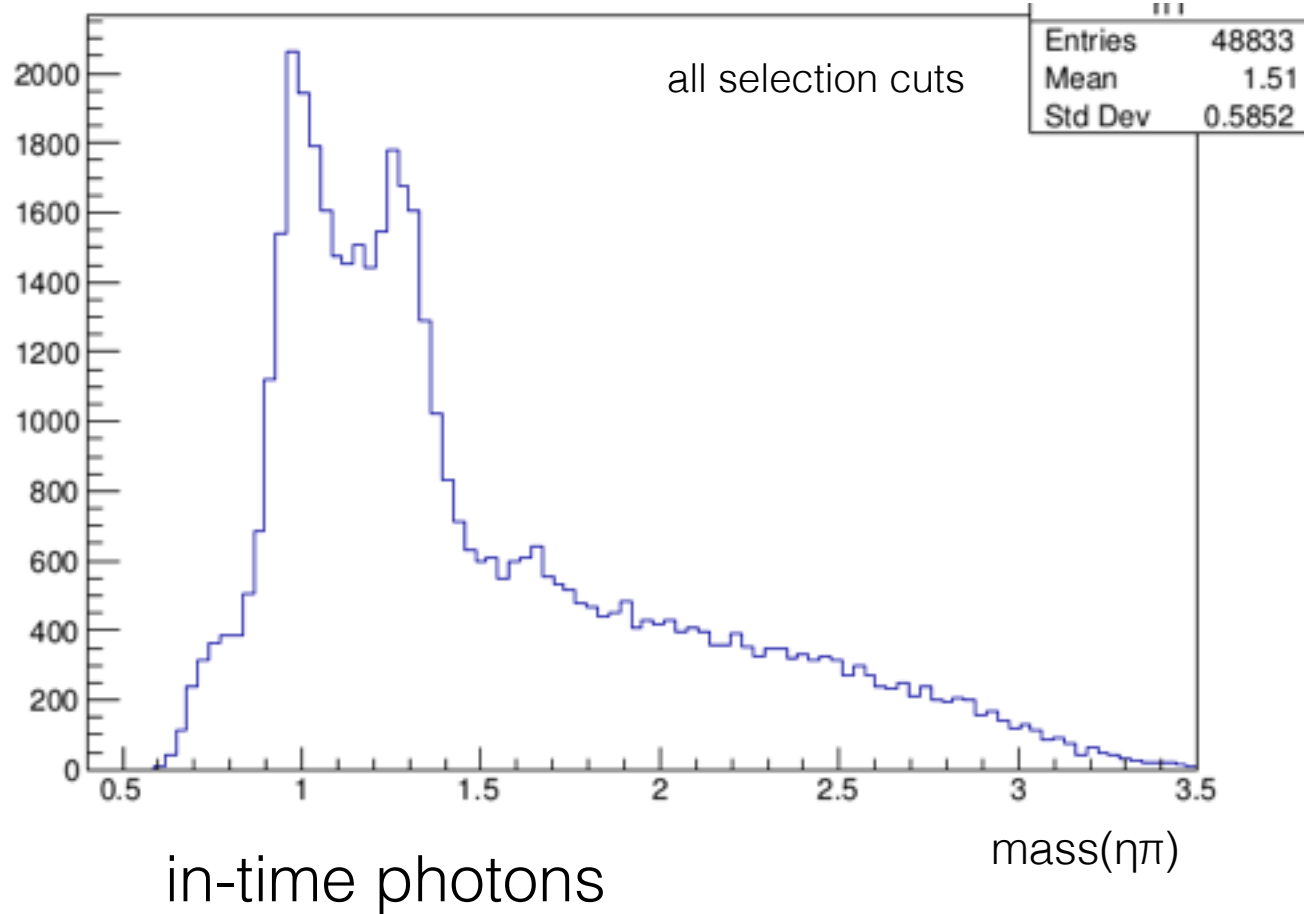
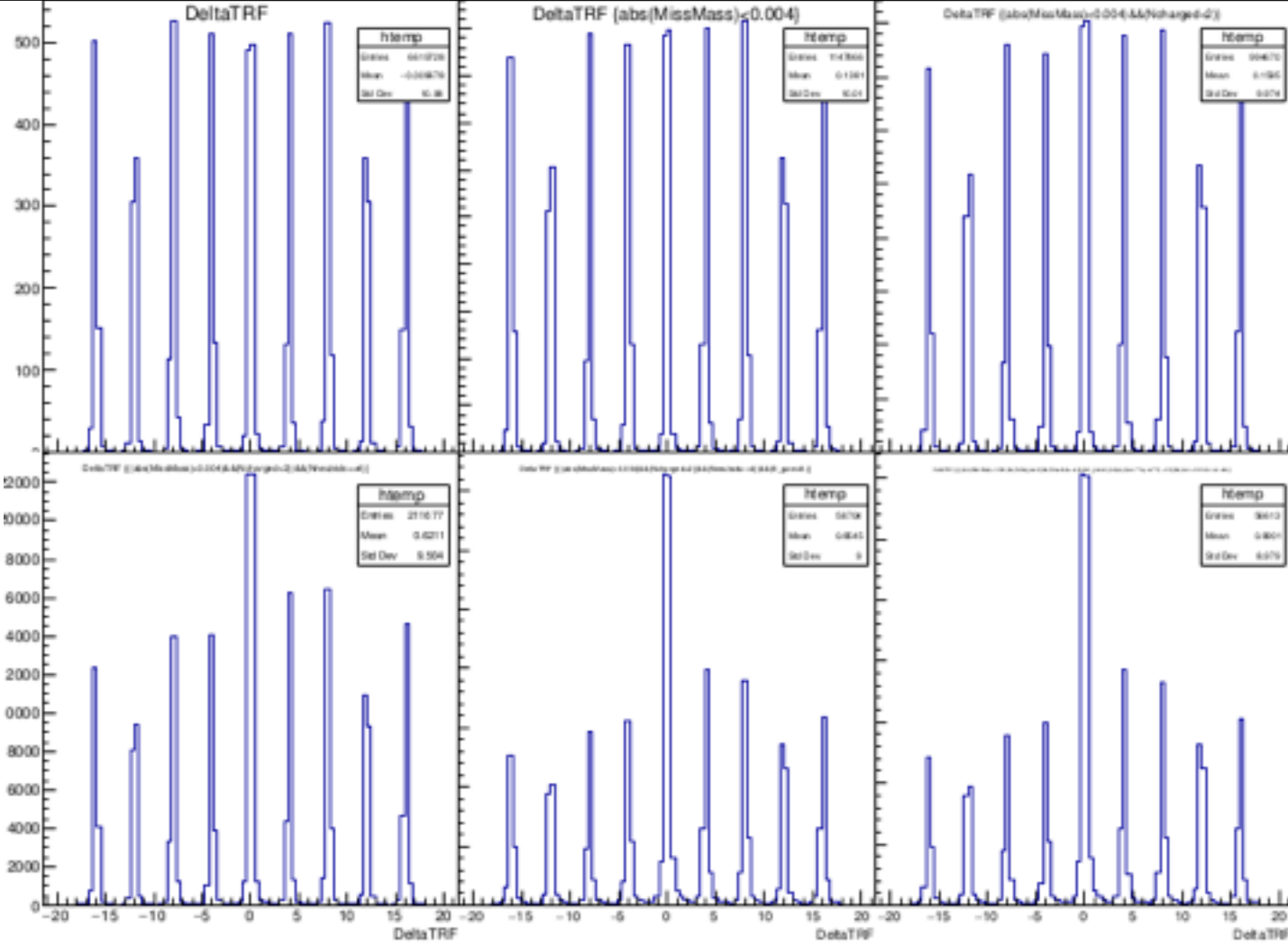
M. Williams, M. Bellis, C.A. Meyer: JINST 4 (2009) P10003

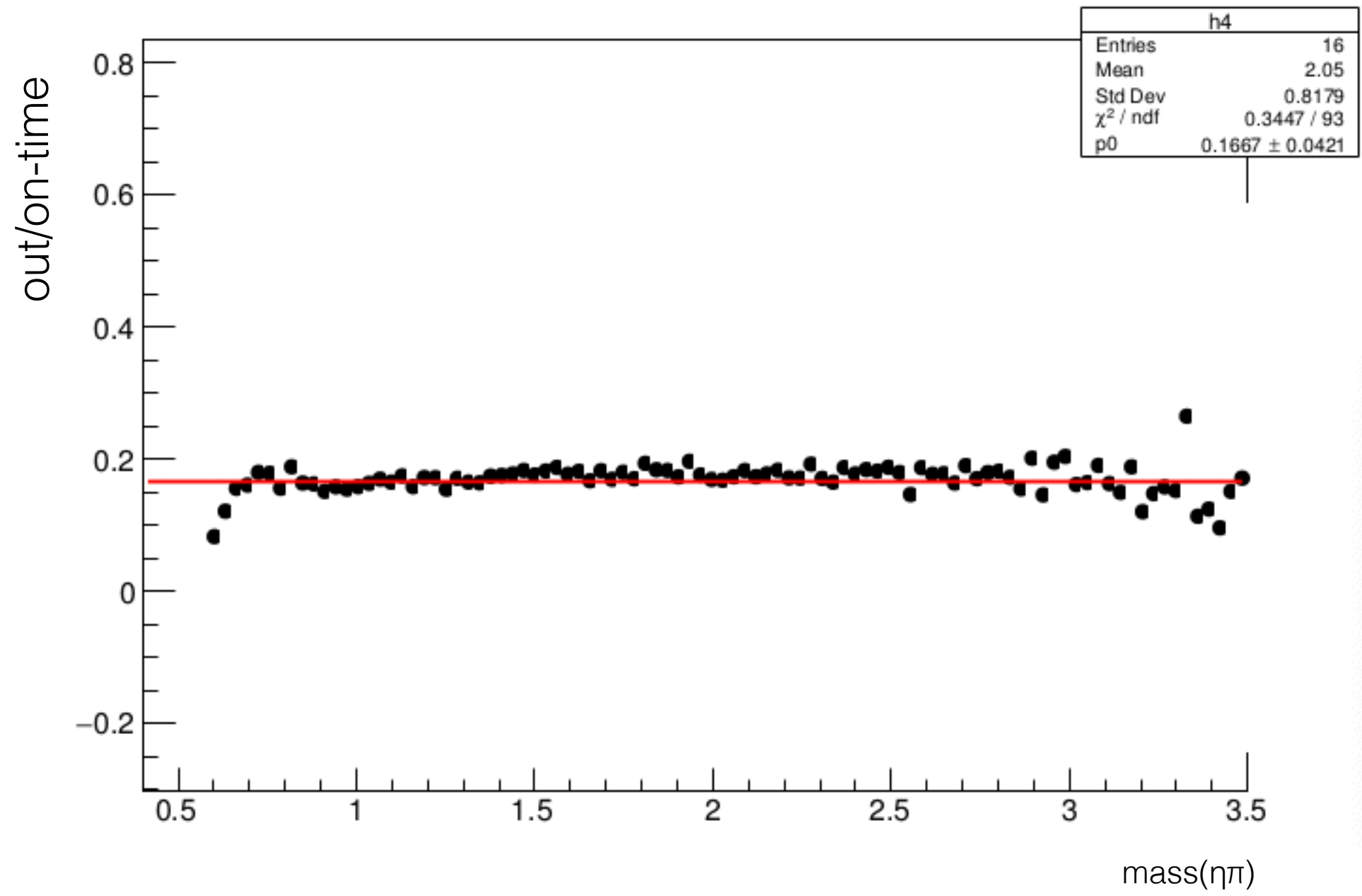
Included in the log of the extended likelihood as a weight for each event

$$-\ln \mathcal{L} = -\sum_{i=1}^N Q_i \ln [I(\vec{x}_i, \vec{a})] + \frac{1}{N_g} \sum_{i=1}^{N_a} I(\vec{x}_i, \vec{a})$$

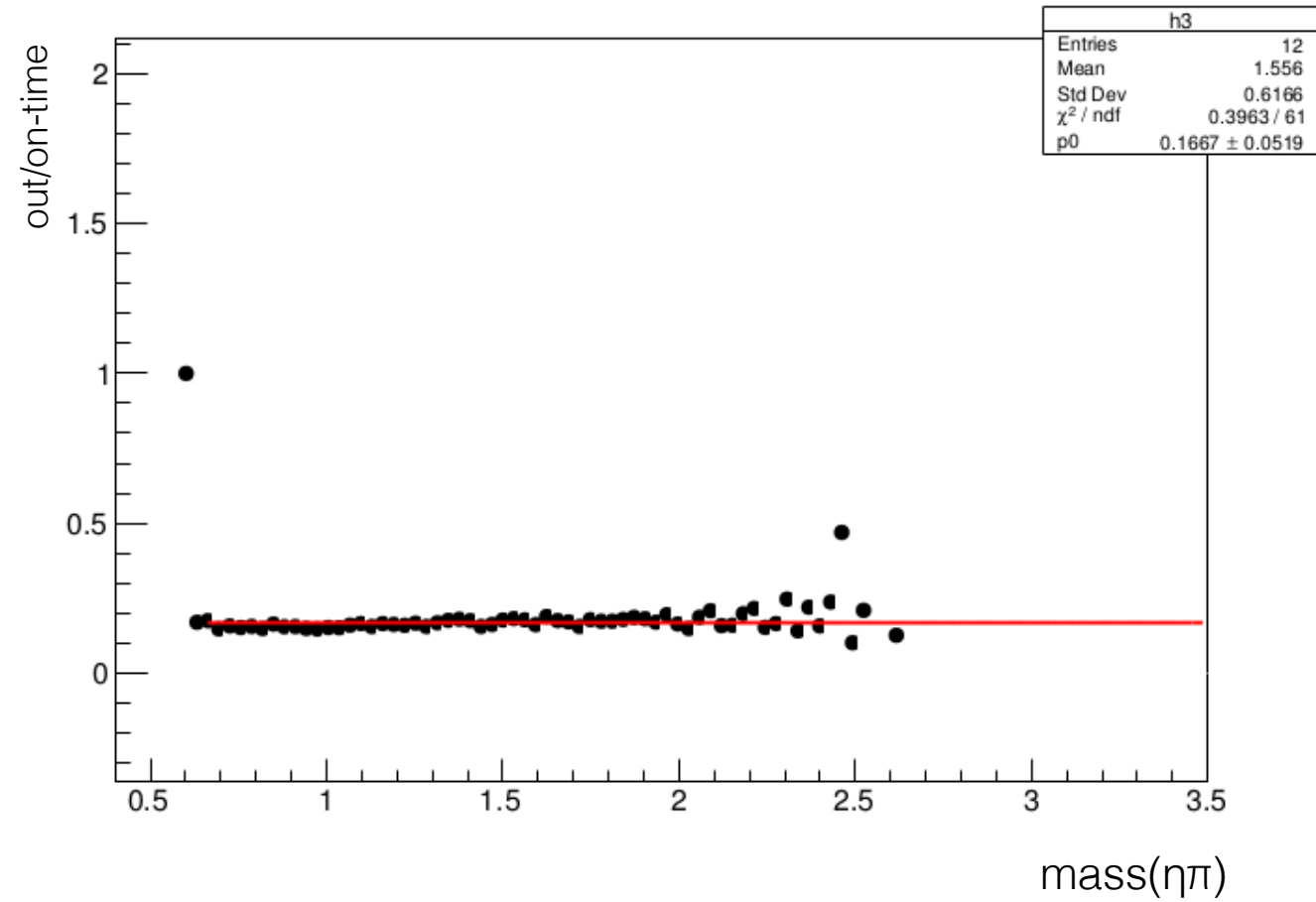
$$Q_i = Q_\gamma Q_p Q_\eta Q_\pi$$

Example:
 $\gamma\rho \rightarrow \rho\eta\pi \rightarrow \rho\gamma\gamma\gamma$

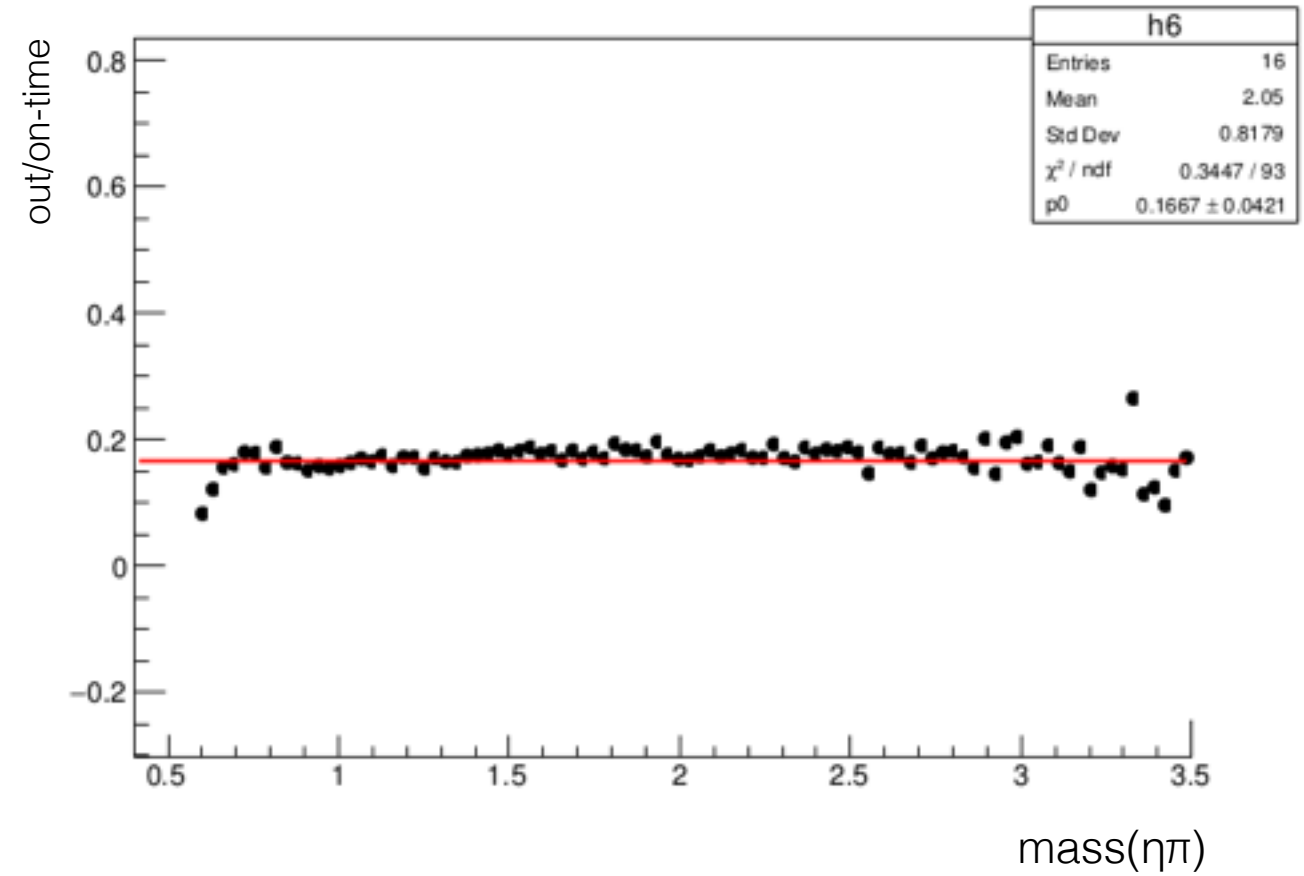


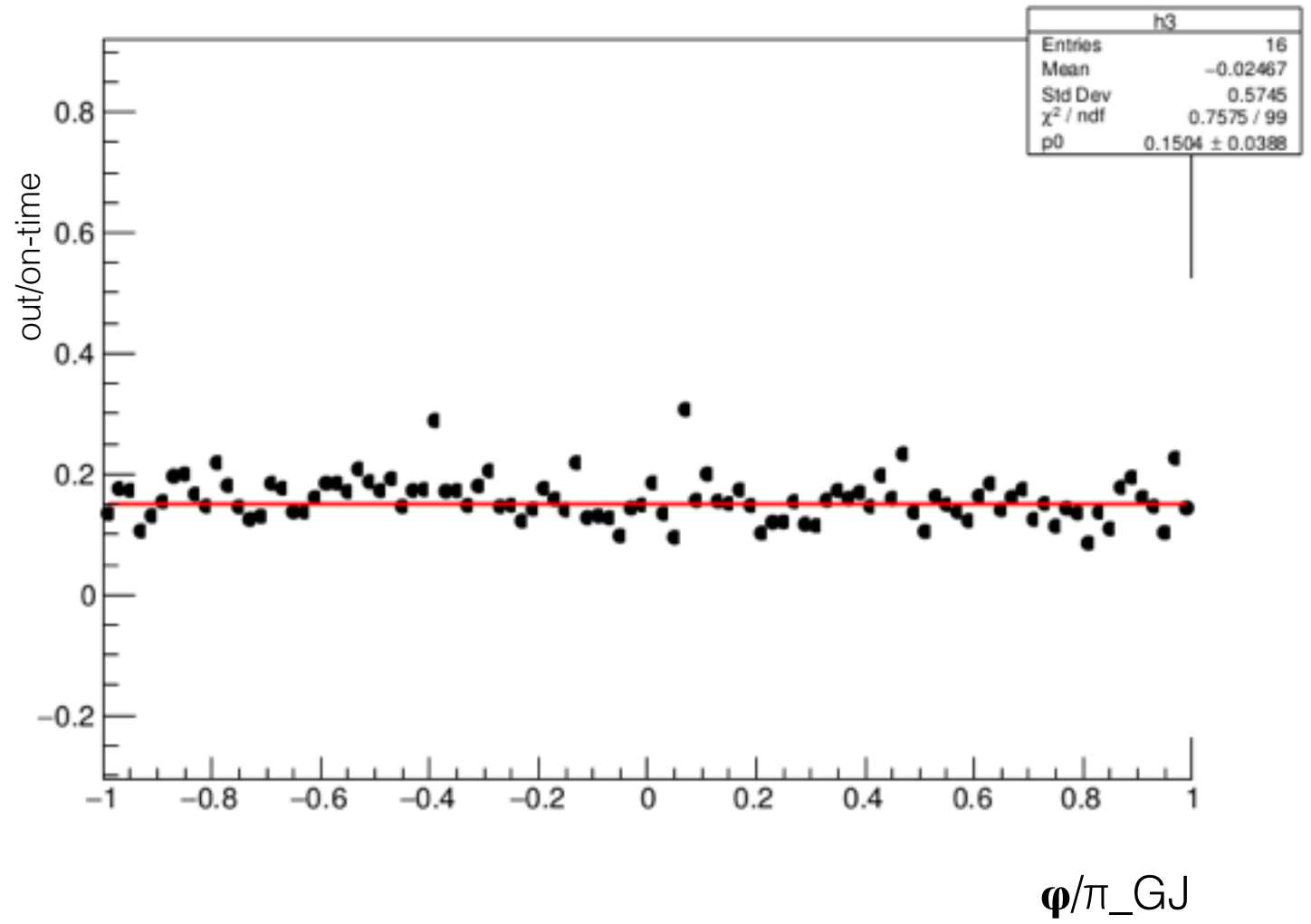
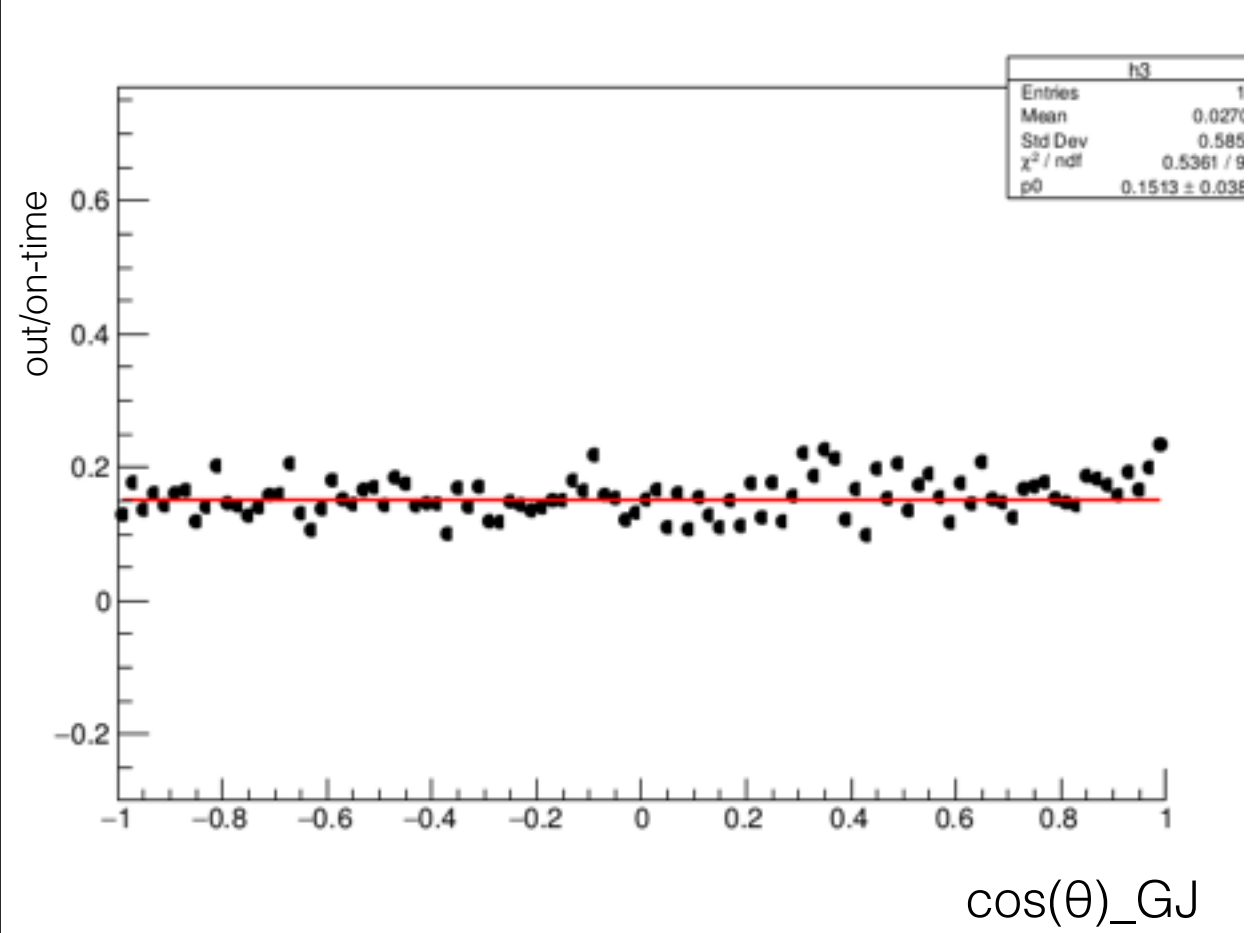


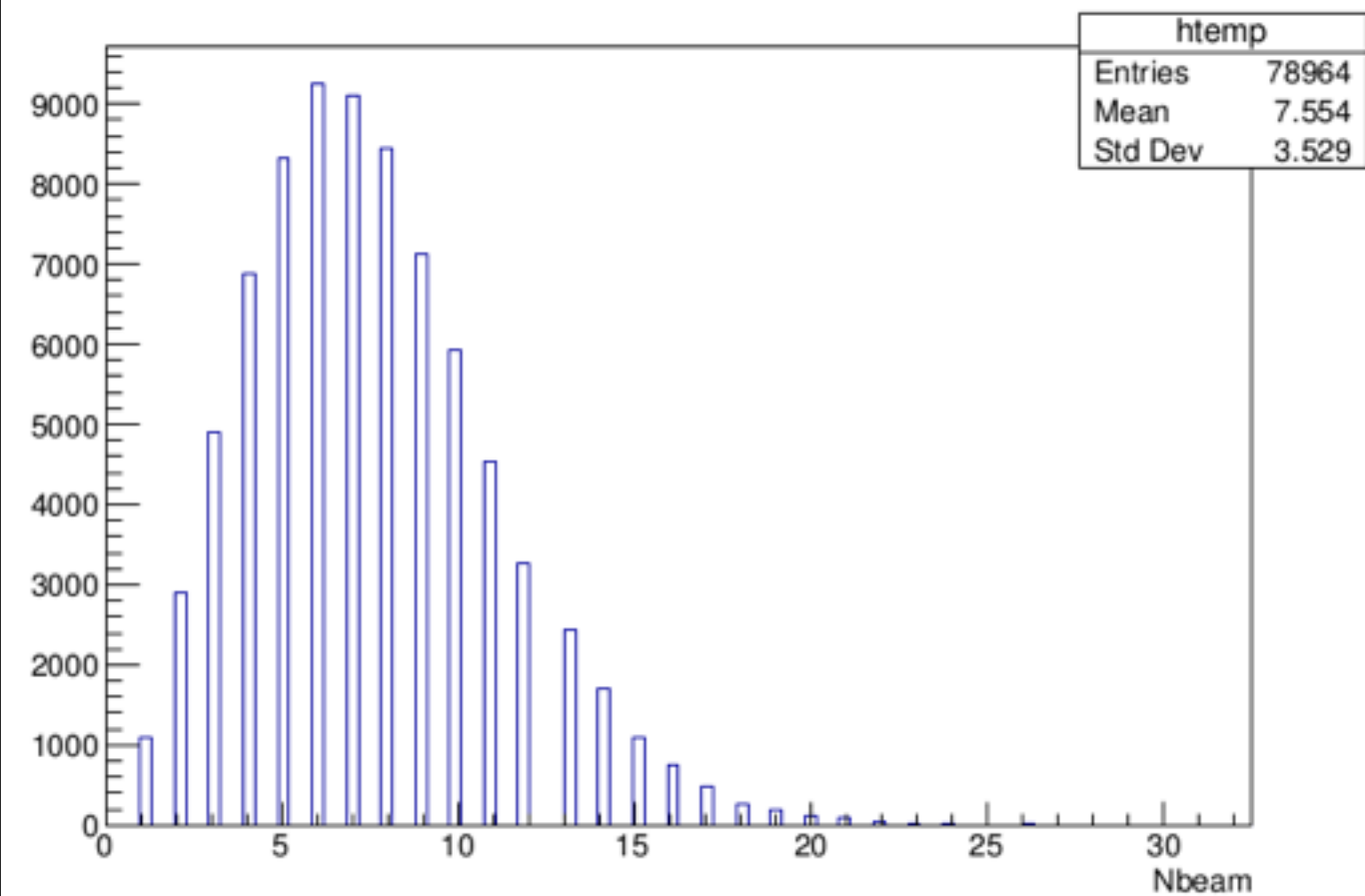
$E_{\text{beam}} < 6 \text{ GeV}$



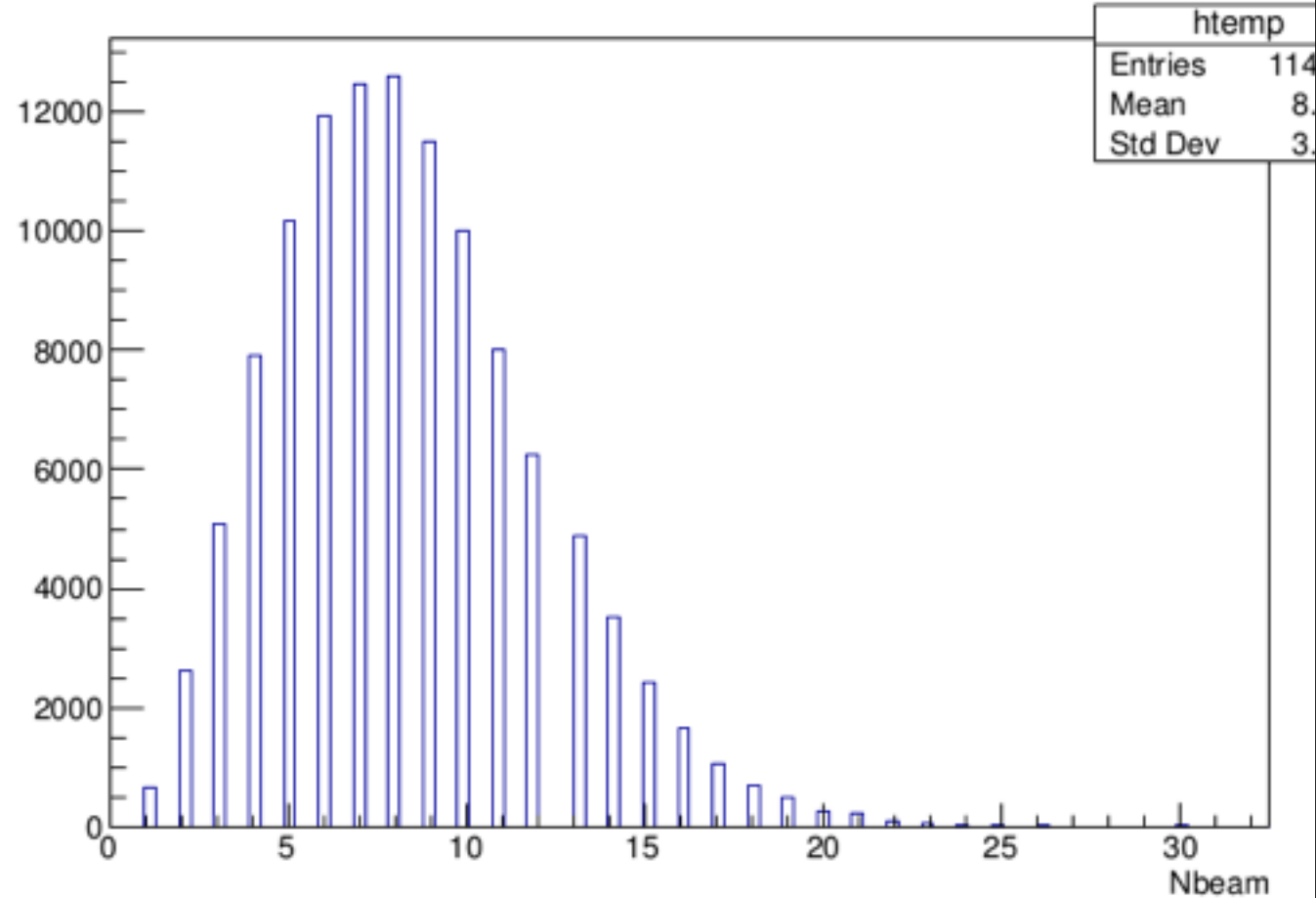
$E_{\text{beam}} > 8 \text{ GeV}$



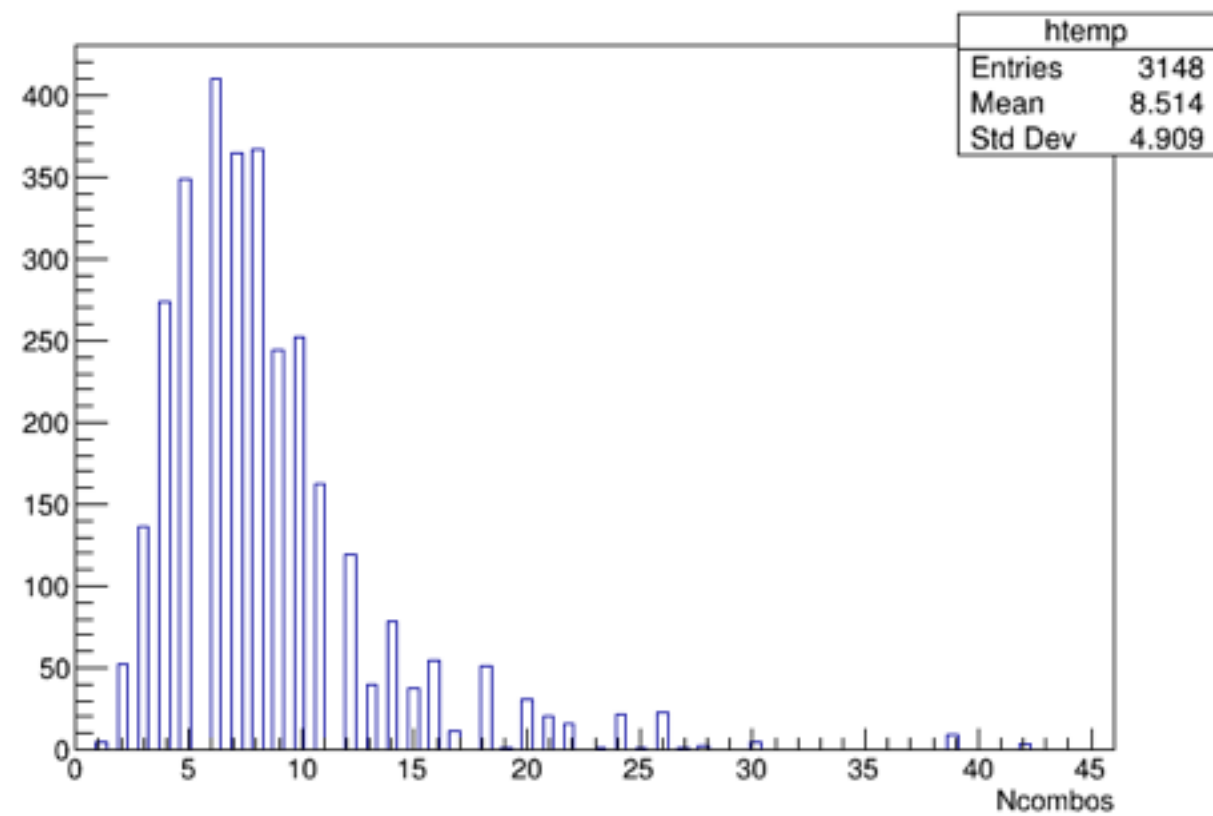
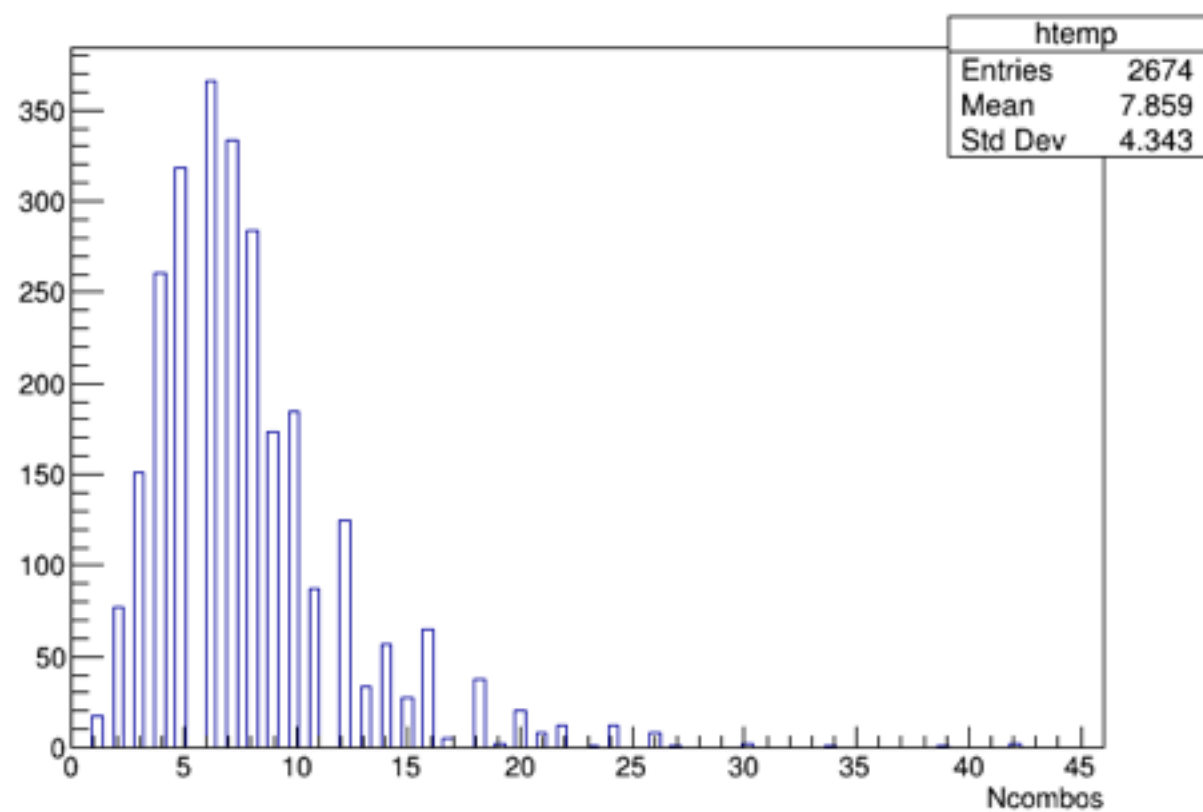




in-time



out-of-time



$$Q_{\gamma} ? = \text{Prob}(\text{"good photon"}) \sim (1/N_{\text{photons}}) \times \text{Prob}(N_{\text{photons}})$$