- Tasks where a photon beam can be helpful:

  - Calibration of RF signal with respect to the KPT and GlueX target (requires additional detector?)

  - Calibration of relative timing alignment between subdetectors (using RF as reference)

  - Energy calibration of calorimeters (especially FCAL and higher energy BCAL showers)

- How well can these tasks be done with the K_L beam?

  - Can fast K_L's be used, despite smaller flux?

  - Can π^0's from neutron induced reactions be used for calorimeter calibrations?
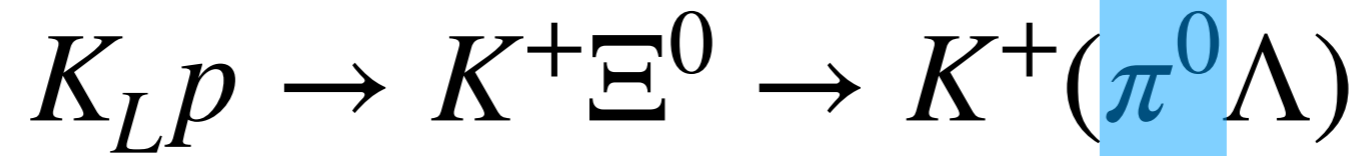
- KLF signal channels with pi0's (and proton target):

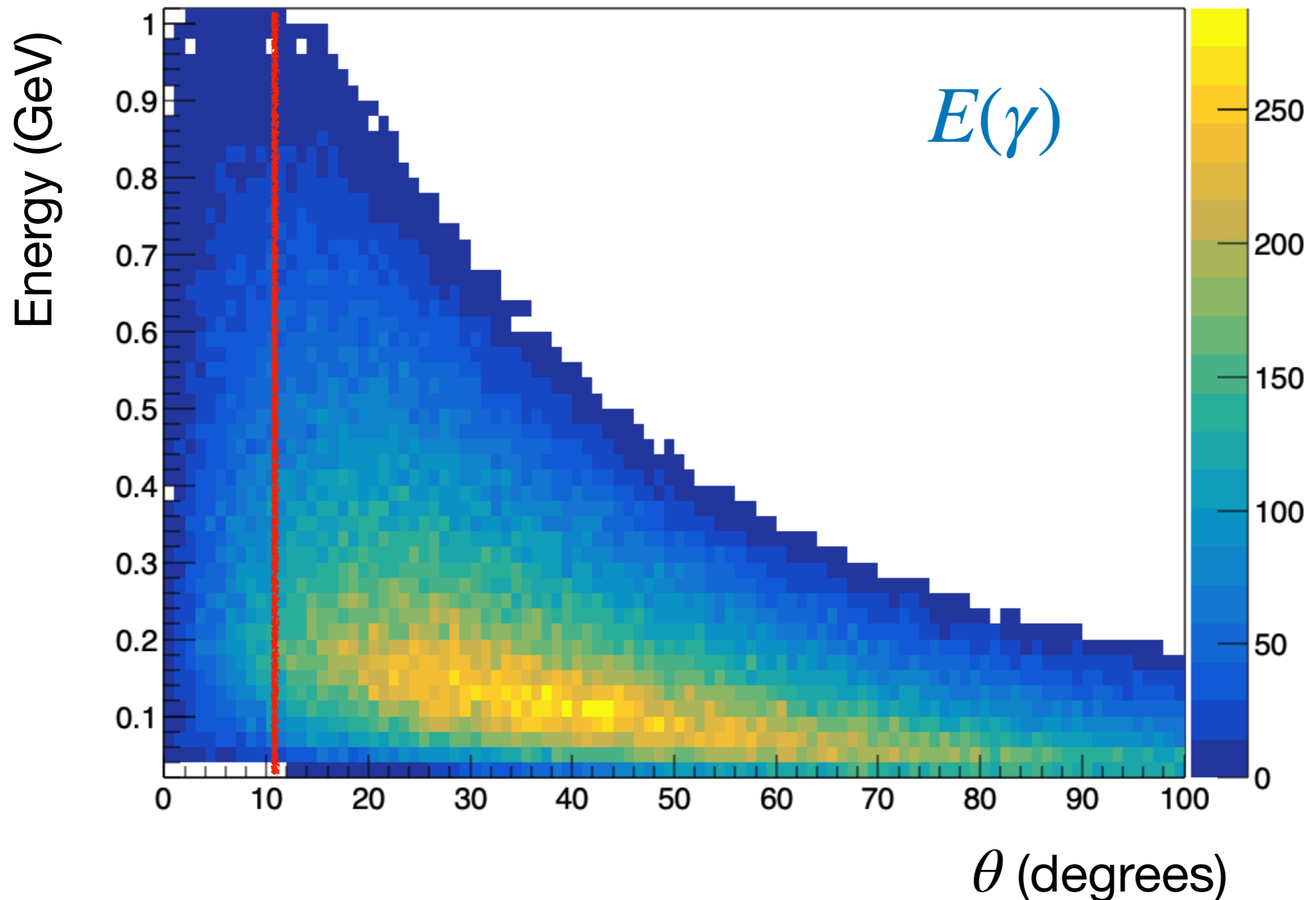 - $K_L p \to K^+ \Xi^0 \to K^+(\pi^0 \Lambda)$

  - $K_L p \to \pi^0 \Sigma^+ \to \pi^0(\pi^0 p)$

  - $K_L p \to \pi^+ \Sigma^0 \to \pi^+(\gamma \Lambda)$

  - $K_L p \to K_L \pi^0 p$
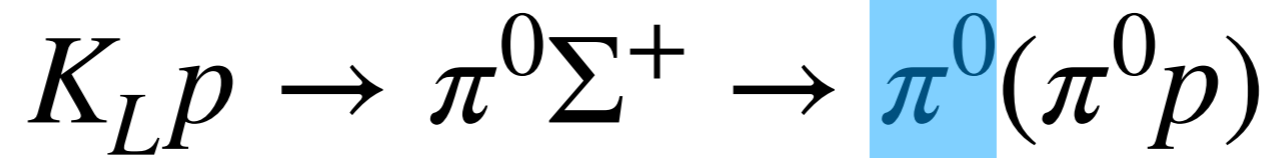
  - $K_L p \to K^- \pi^0 \Delta^{++}$

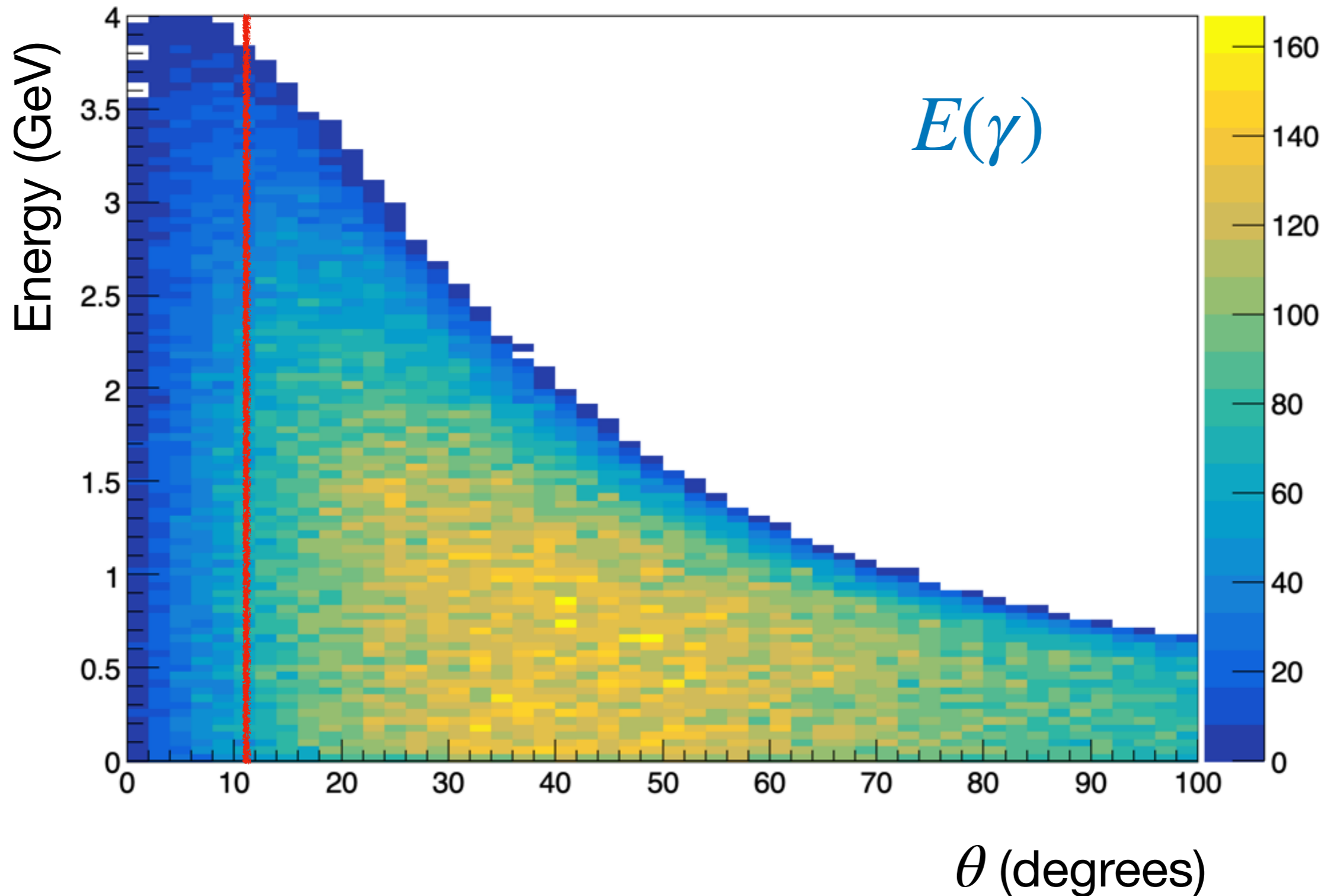$$K_L p \to K^+ \Xi^0 \to K^+ (\pi^0 \Lambda)$$
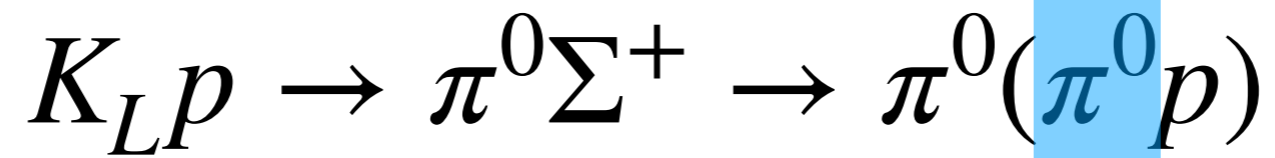
Generated using phase space, standard K_L beam profile

$E(\gamma)$

Energy (GeV)

θ (degrees)

$K_L p \to \pi^0 \Sigma^+ \to \pi^0 (\pi^0 p)$

Generated using phase space, standard K_L beam profile

$E(\gamma)$

Energy (GeV)

θ (degrees)

$$K_L p \rightarrow \pi^0 \Sigma^+ \rightarrow \pi^0 (\pi^0 p)$$

Generated using phase space, standard K_L beam profile

$K_L p \rightarrow \pi^+ \Sigma^0 \rightarrow \pi^+ (\gamma \Lambda)$

Generated using phase space, standard K_L beam profile

$E(\gamma)$