## Introduction to Problem

- Sometime photons that hit BCAL lie nearly right on top of one another
- Here: a $\pi^{0}$ particle decays to two photons ( $\gamma_{1}$ and $\gamma_{2}$ )
- Both about at 4 O'Clock



## First Approach

- Maybe the BCAL showers contain enough info to guess already?



# MC Sample 

- $\pi^{0}$ gun:
- 1-7 GeV
- $15-35^{\circ}$ in $\theta$
- $\gamma$ gun
- $13-38^{\circ}$ in $\theta$
- 0-8 GeV


## ROC Curve From TMVA



