

# TPOL update

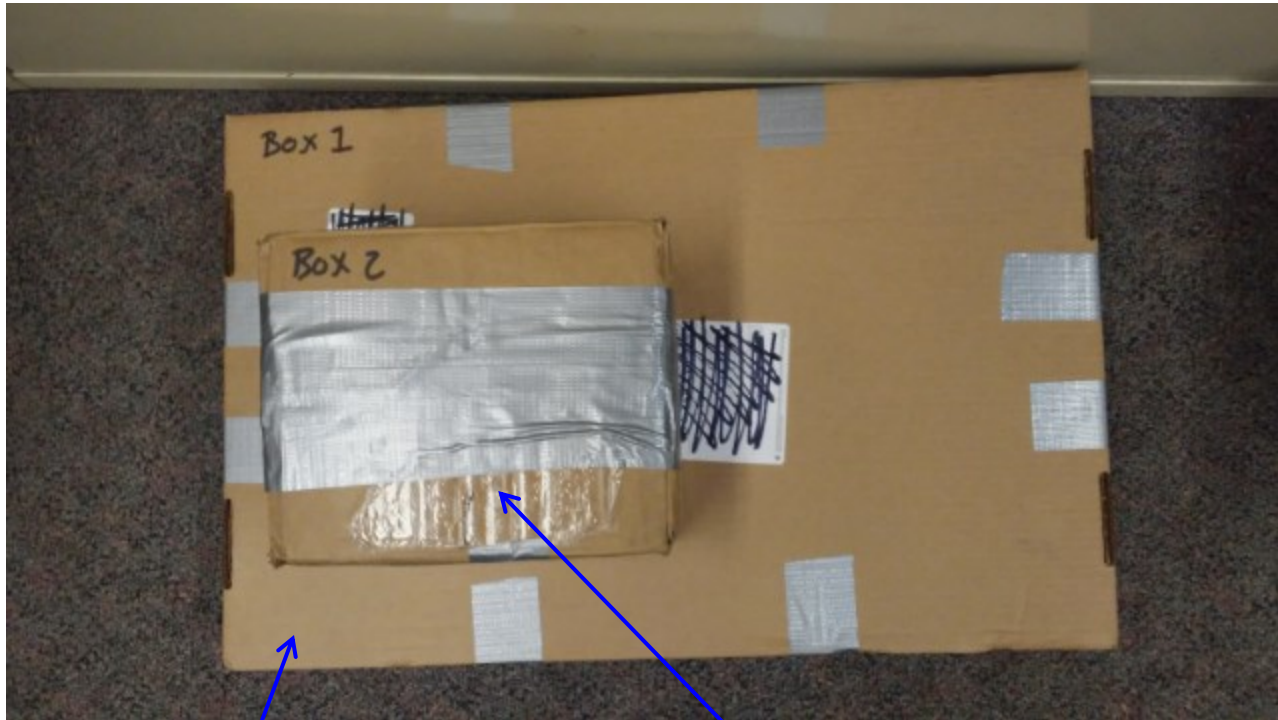


# Received the new preamp-enclosure front panel and distribution-box back panel



- The holes align and everything looks OK
- Boxed and to shipped to JLab

# Boxes shipped by FedEx ground



Panels (Box 1)  
Arrived at JLab: 6/1/17

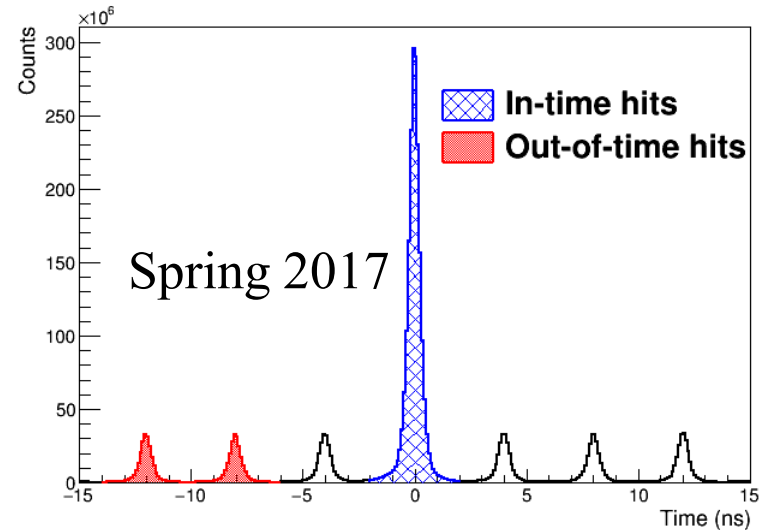
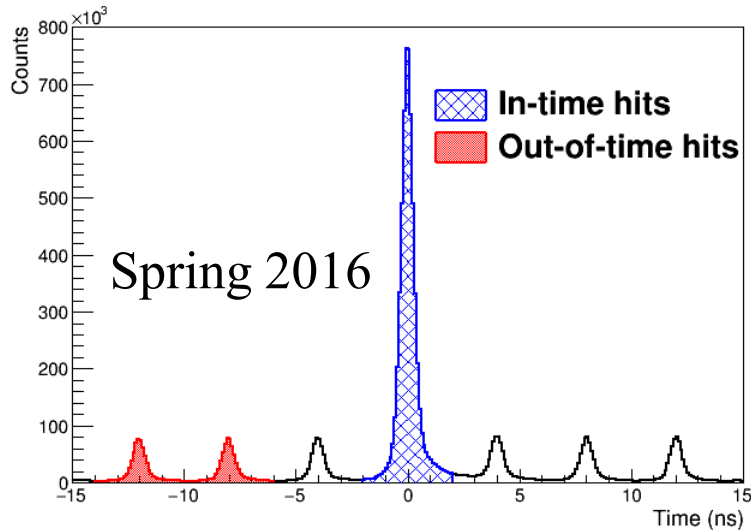
Preamps (Box 2)  
Arrived at JLab: 5/31/17



# Quality check Spring 2017 TPOL data

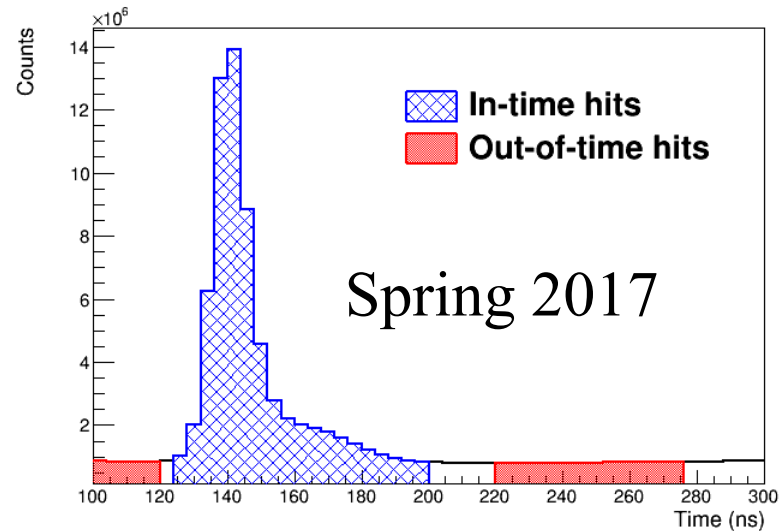
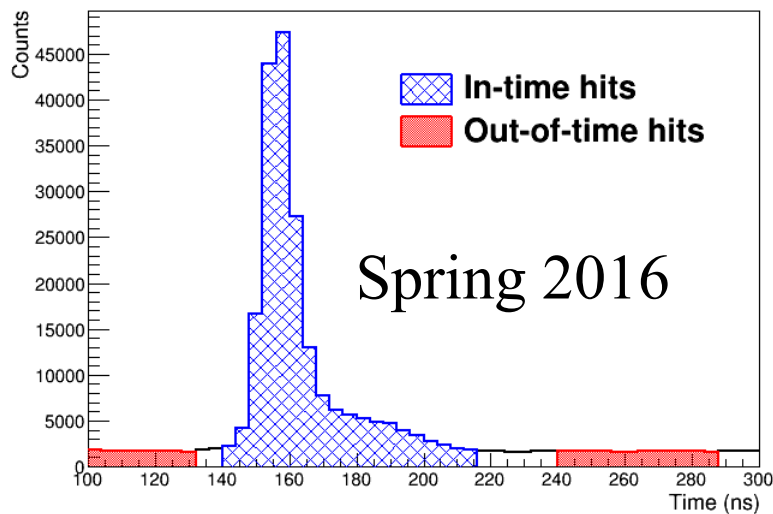
- Nathan created Spring 2017 TPOL trees 😊
- Have 346 runs

# Tagger-PS timing



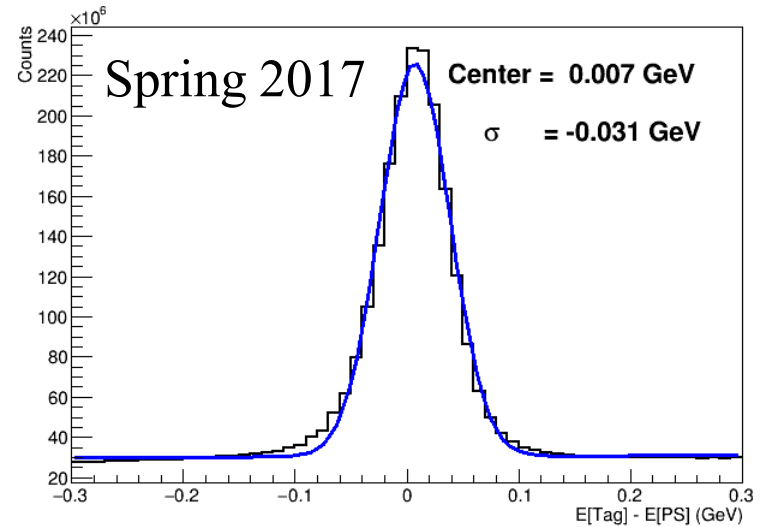
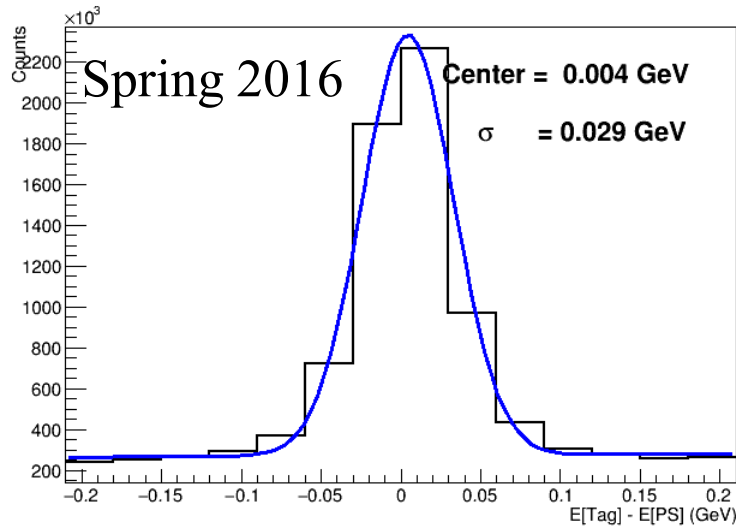
- Spring 2017 looks a bit better than Spring 2016
- Will add more beam buckets to out-of-time hits later on

# TPOL-PS timing



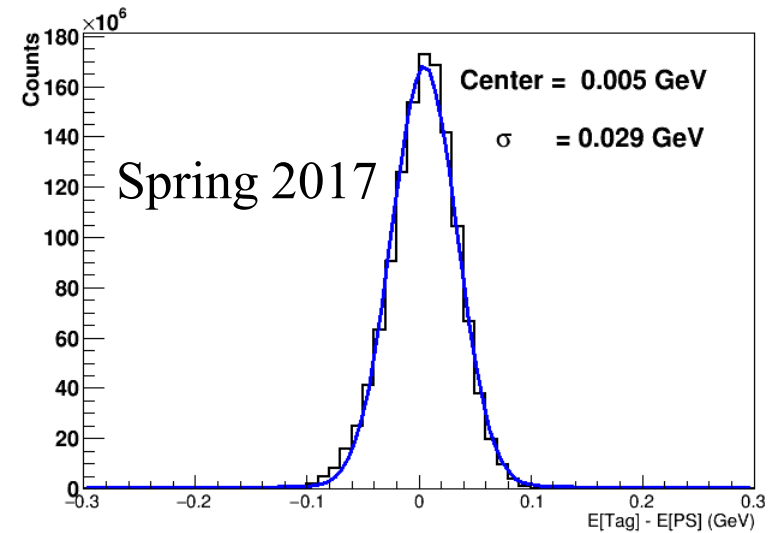
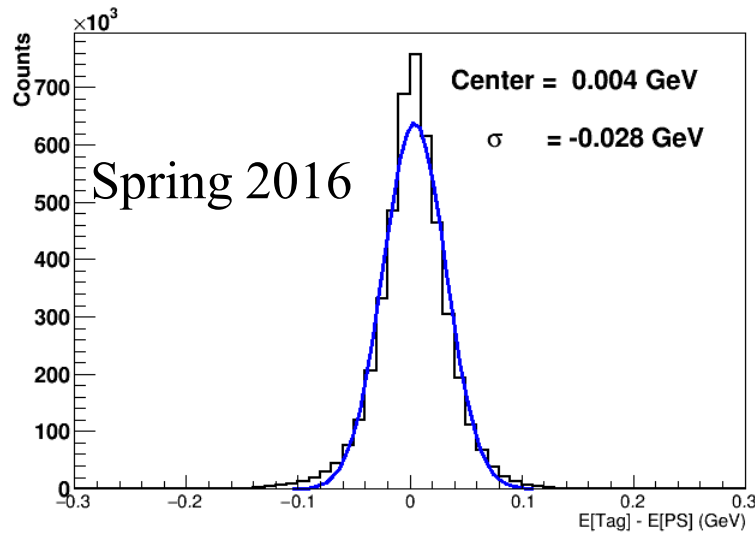
- The timing of TPOL has changed (due to new DAQ settings)
- New definitions of in-time and out-of-time hits shown on histogram

# $E[\text{tag}] - E[\text{PS}]$



- Different bin widths but otherwise Sp16 is nearly the same as Sp17

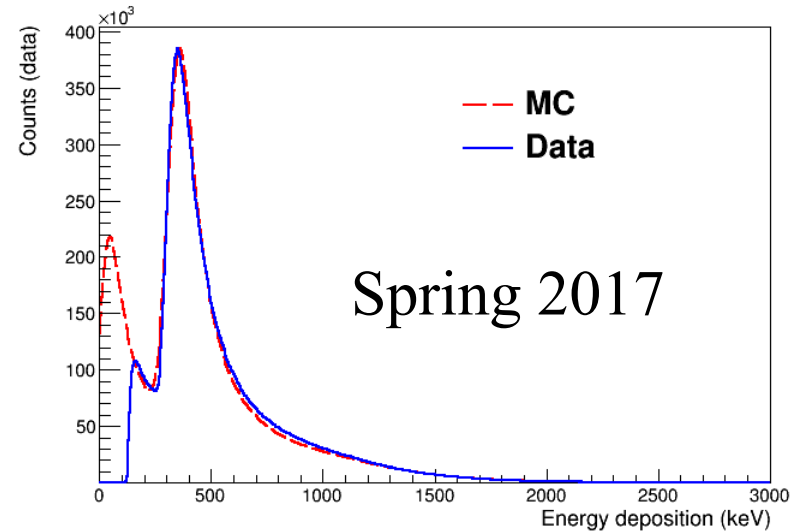
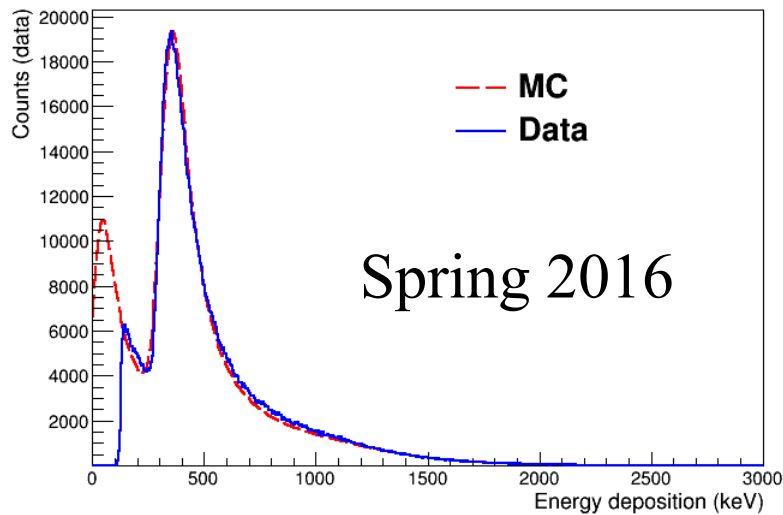
# $E[\text{tag}] - E[\text{PS}]$ for best timed photon



- Nearly the same center and width

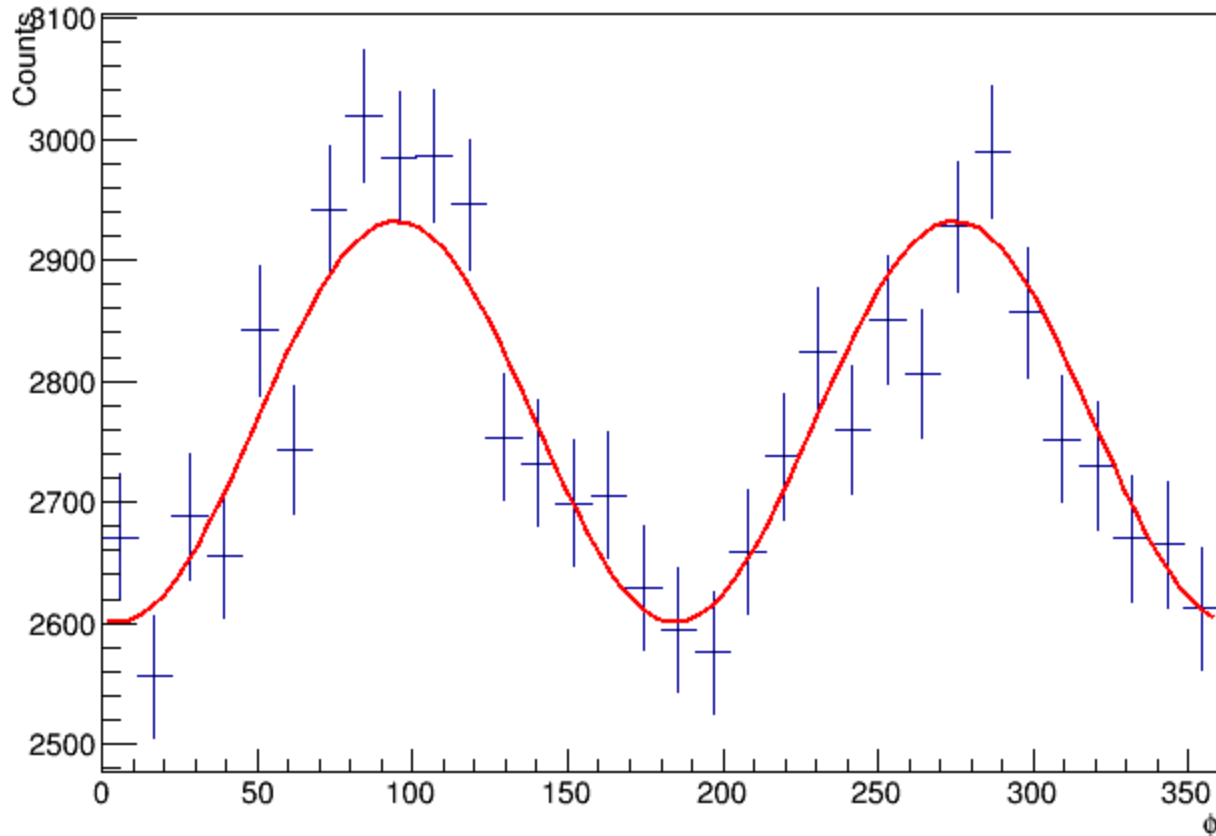


# Energy deposition comparison



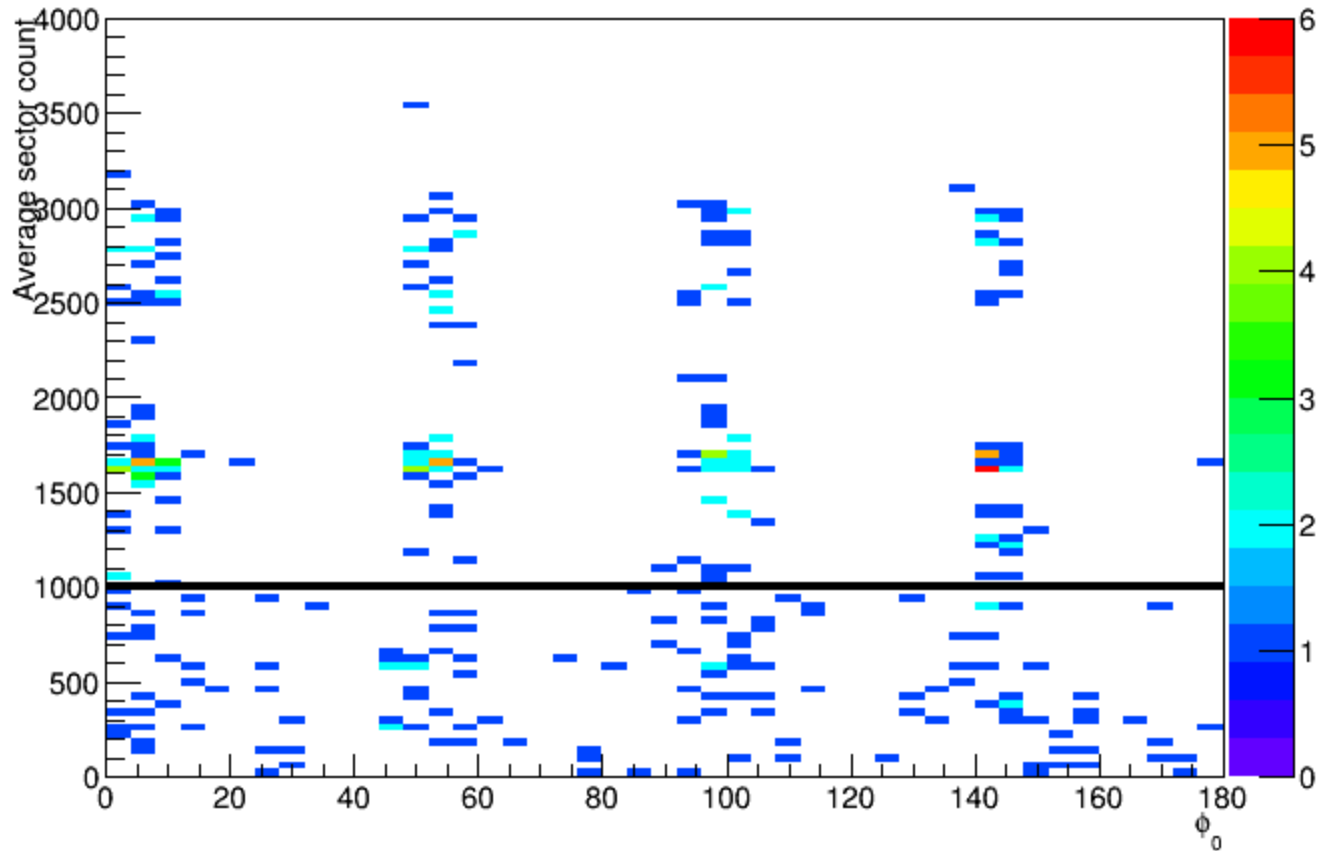
- Data has accidental subtraction
- Comparison looks good
- Will use Sp16 smears and energy cuts for Sp17 data

# Example fit for run 31031



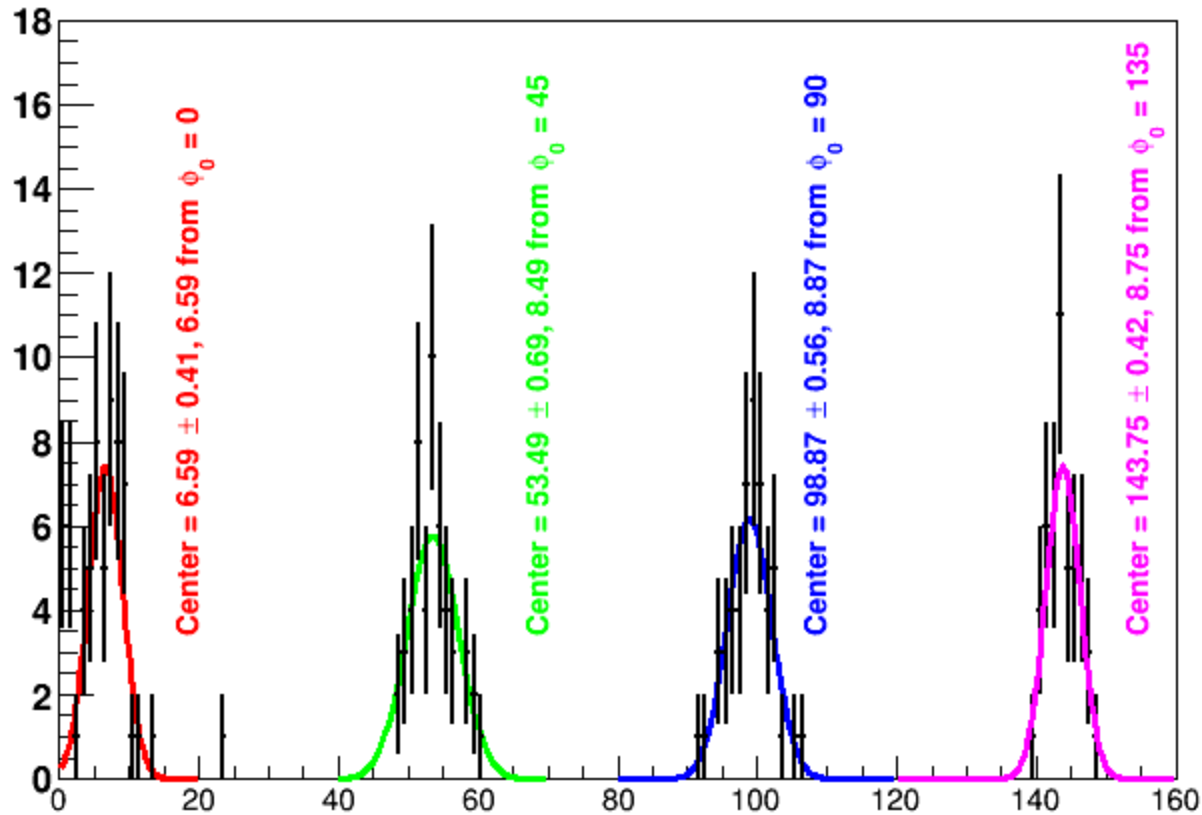
- Used  $E[\text{PS}]$  from 8.2 to 8.8 GeV
- Ran fits for each run

# Average sector count vs. offset



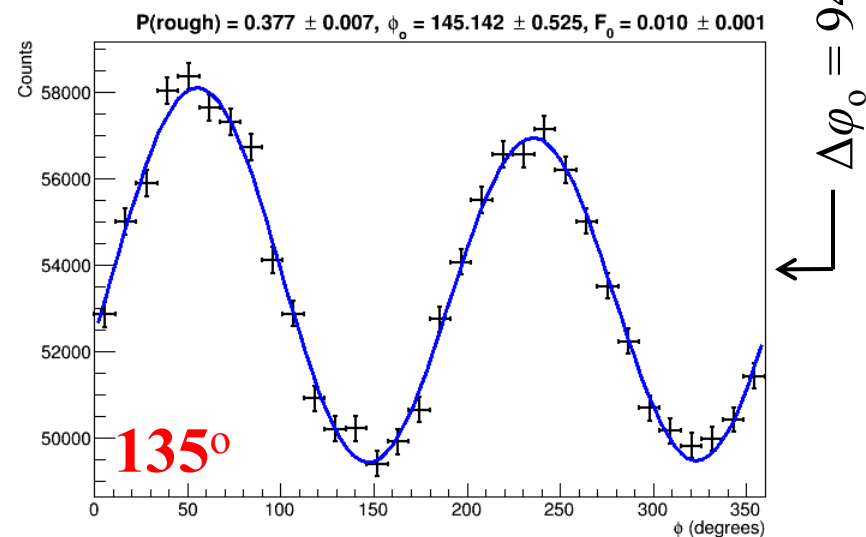
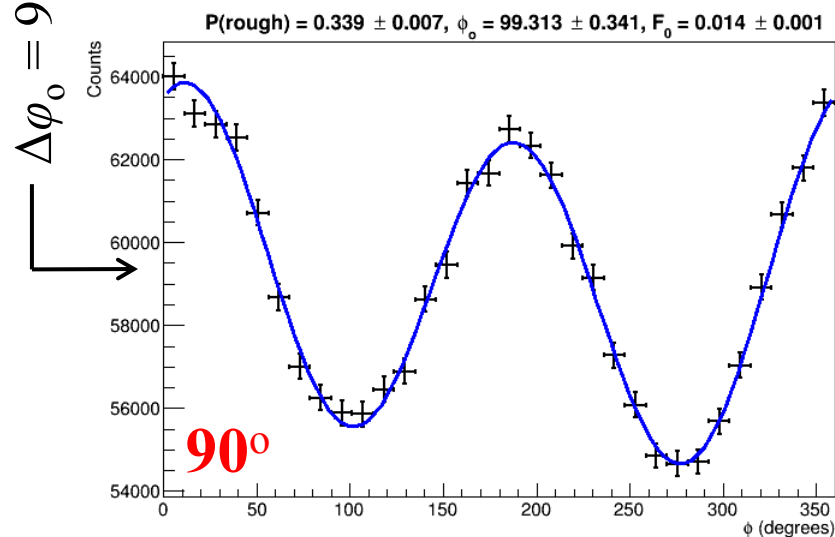
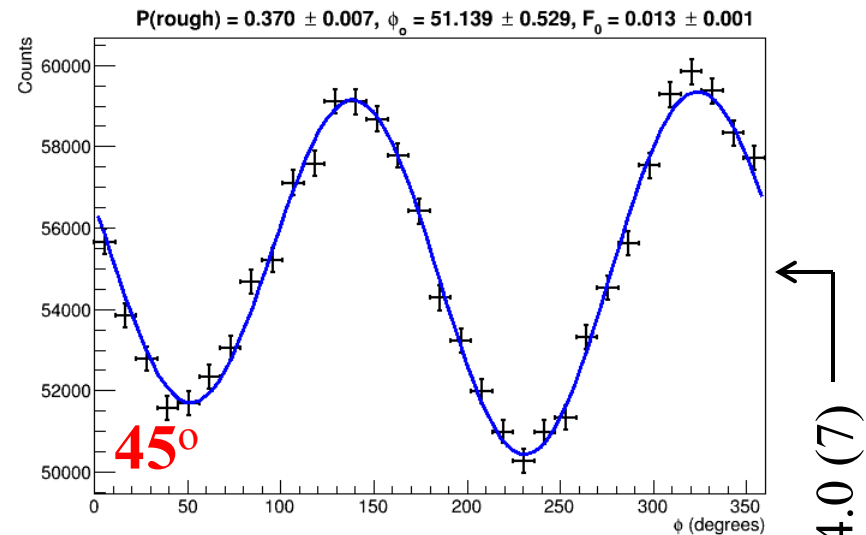
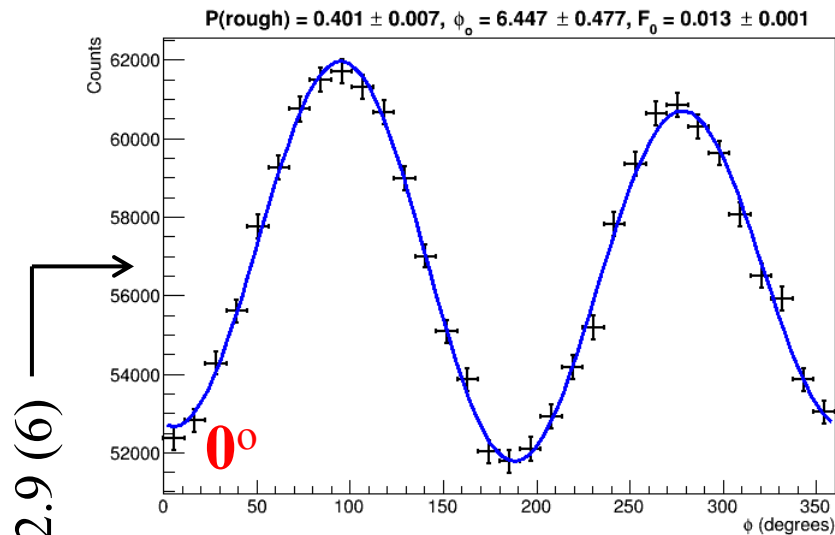
- Take everything above the line at 1000 average sector count

# Offset



- For runs with average sector count  $> 1000$

# Some polarization values



$\Delta\phi_0 = 92.9$  (6)

$\Delta\phi_0 = 94.0$  (7)

- Used  $\pm 3 \sigma$  from  $\varphi$ -centers shown on previous slide to determine nominal orientation
- Used runs regardless of sector count, but  $P(\text{rough})$  had to be greater than 0.15
- Included TAG coincidence (energies determined by TAG) and  $E$  between 8.2 and 8.8 GeV

# Title

