

# The standard TPOL analysis

Take a standard TPOL Run,  
fetch raw data                      and  
apply \$(title)

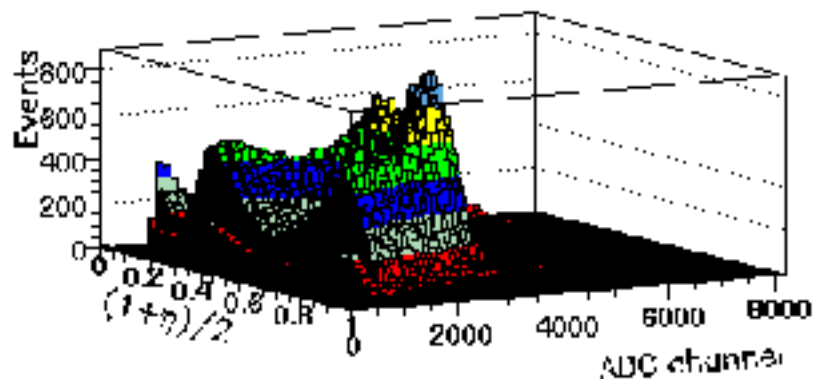
# 2D ENERGY-SPATIAL SPECTRA

2 MIN DATA, RUN = 50852

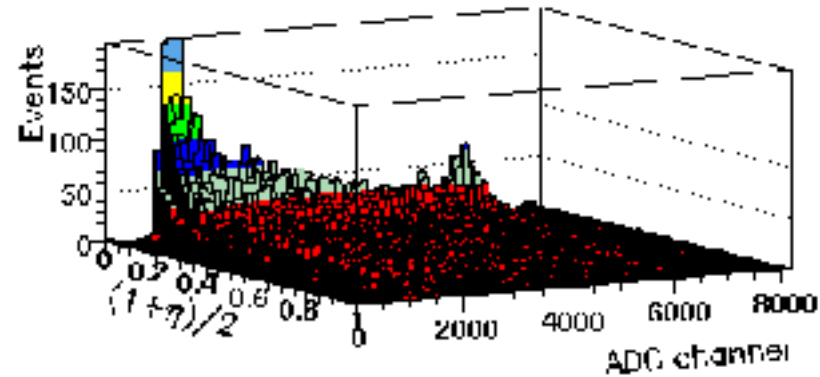
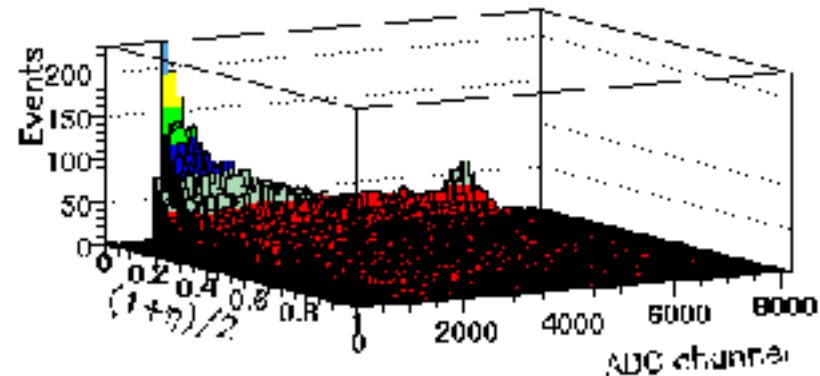
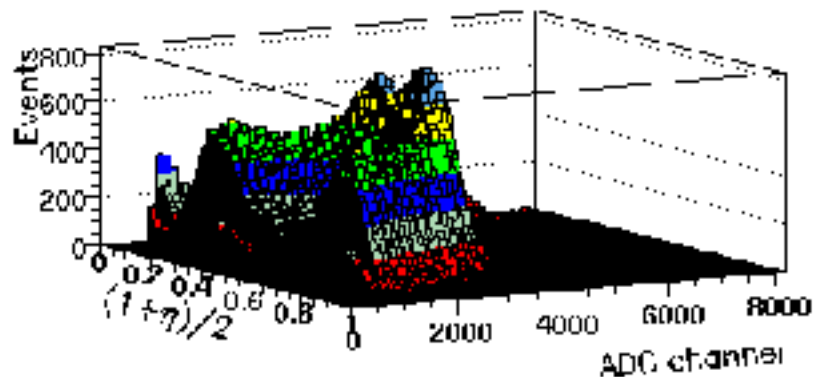
Laser ON

Laser OFF

Left

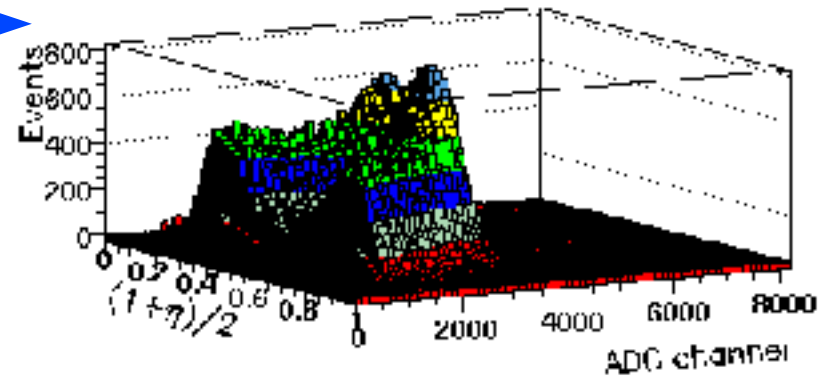
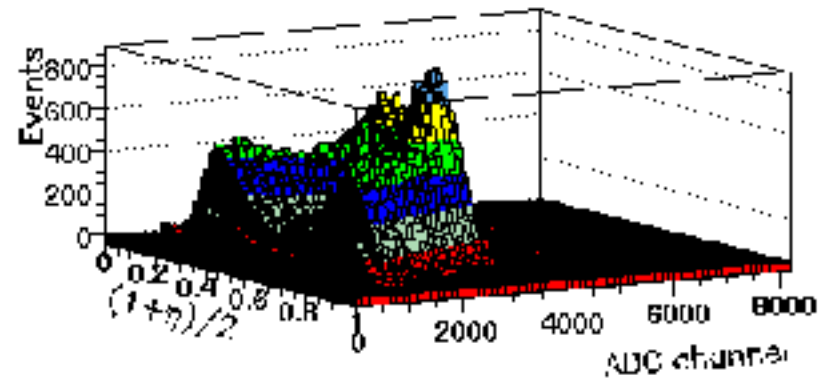
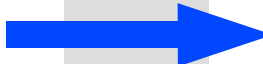
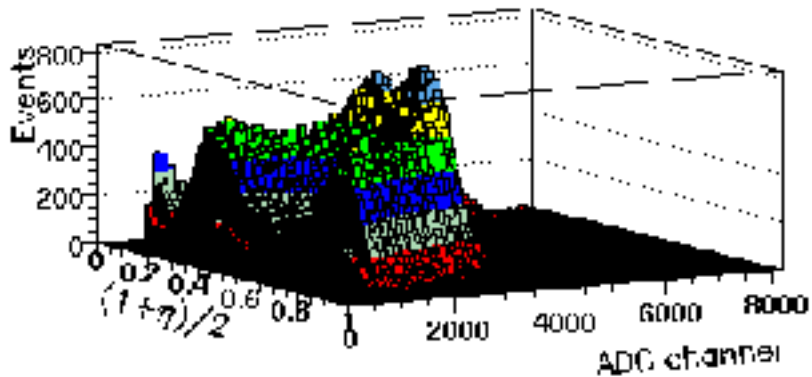
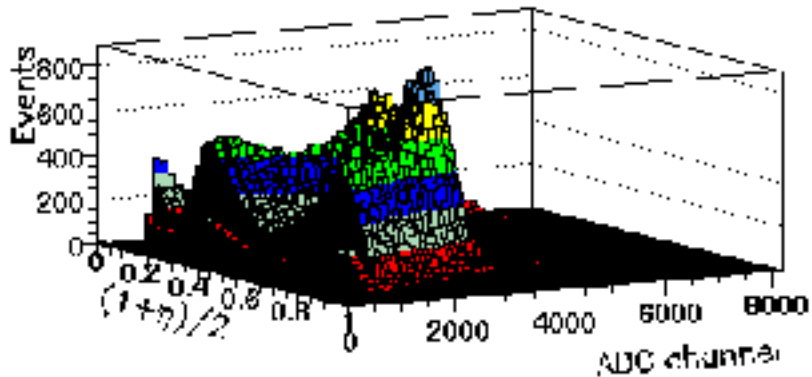


Right



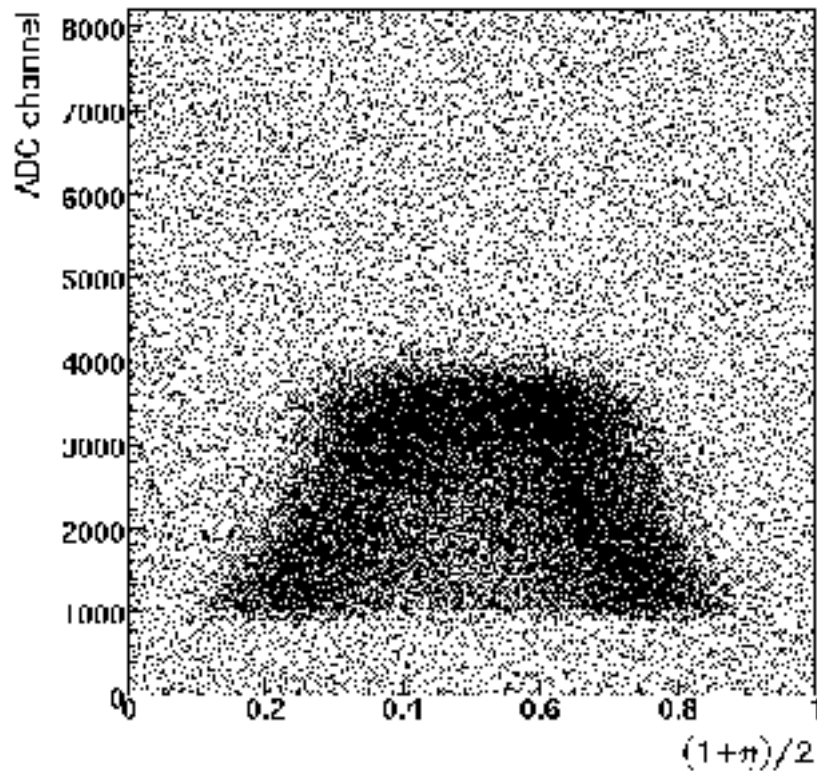
# SUBTRACT BACKGROUND

NORMALIZE HISTOGRAMS BY ON, OFF, LEFT, RIGHT LIVE TIMES

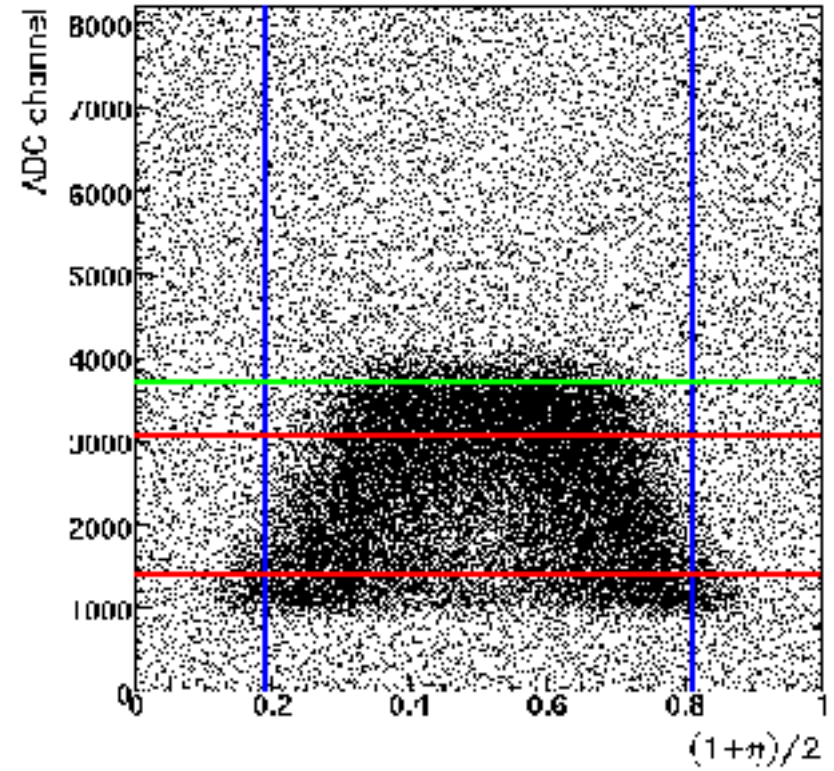


# IMPOSE ENERGY AND SPATIAL CUTS

COMPTON LEFT 2D HISTOGRAM

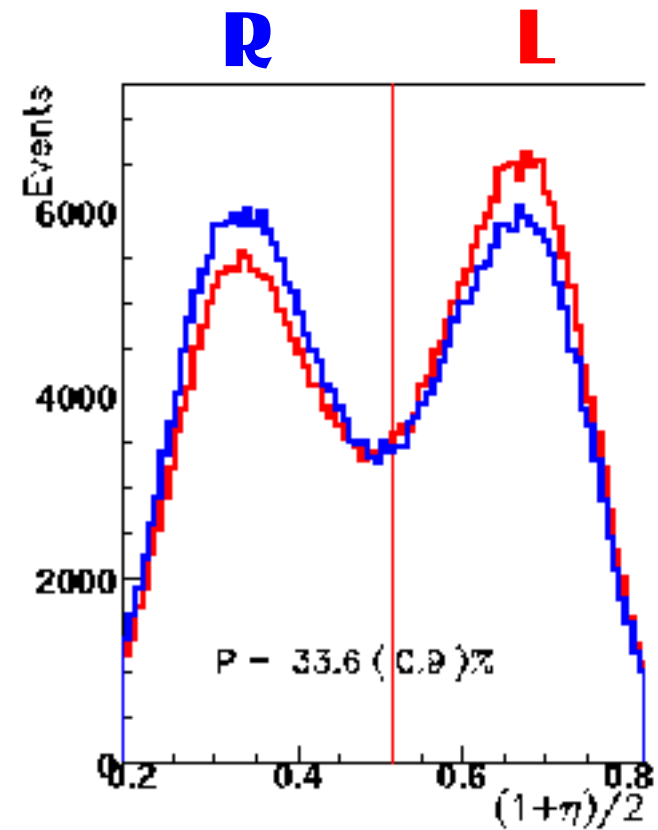
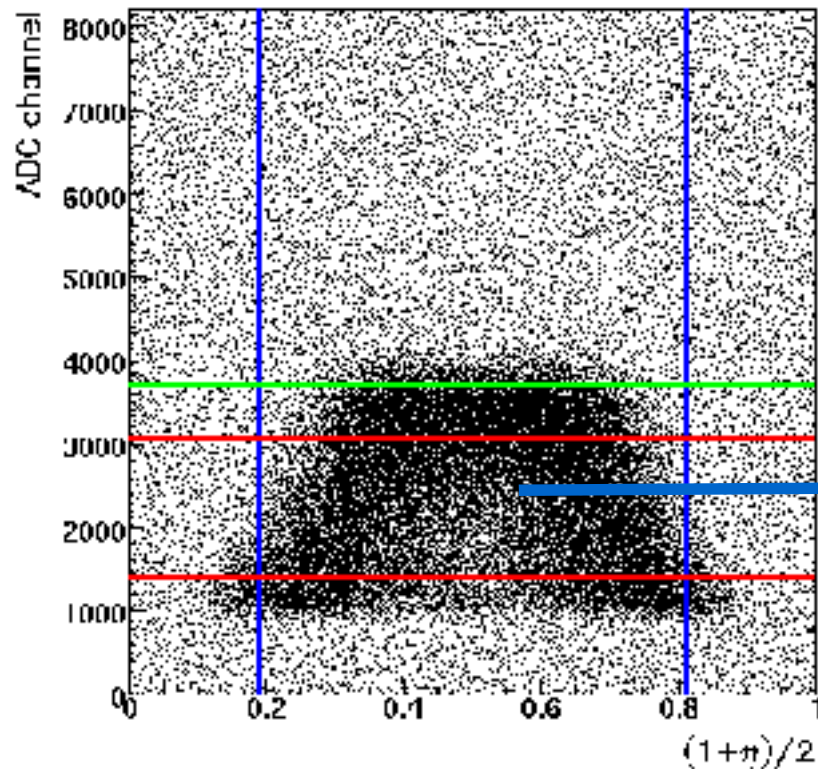


CUTS



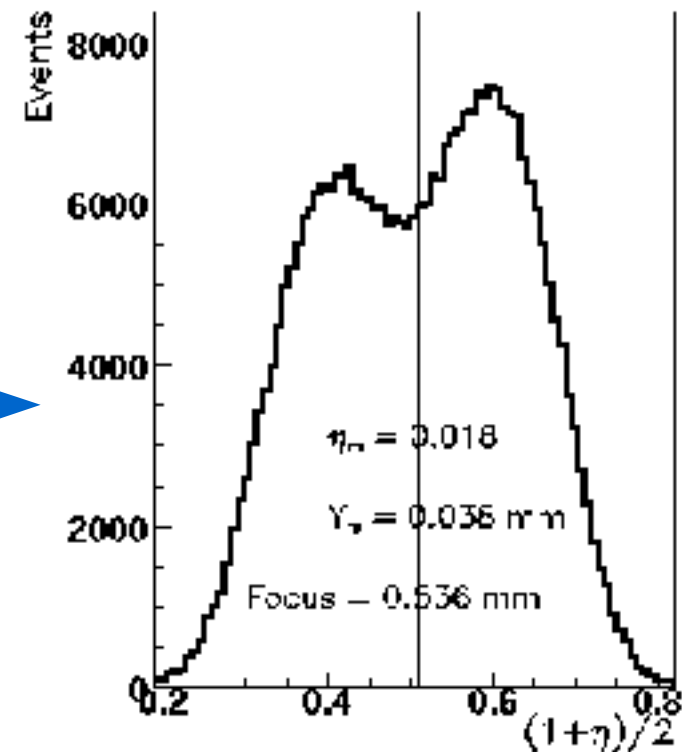
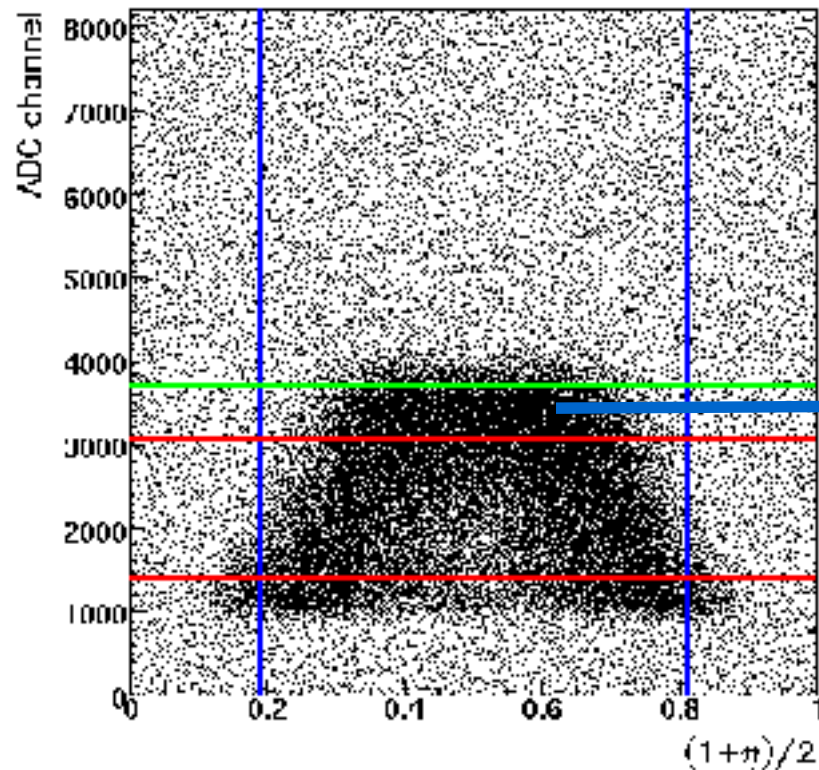
# GO TO 1D

PROJECT, FIND MEANS FOR POLARIZATION AND WIDTHS FOR ERROR



# GO TO 1D

DERIVE Y OFFSET AND FOCUS USING HIGHER ENERGIES



# CORRECT THE OUTCOME

APPLY ONLINE FOCUS CORRECTION  
 $PCORR = P * [1 + 0.66 * (FOCUS - 0.44)]$

$$P_{corr} = 0.336 * 1.061 = 0.357$$

online result

$$P = (35.66 \pm 0.96)\%$$

APPLY LIGHT POLARIZATION AND Y OFFSET  
CORRECTIONS OFFLINE

# TPOL ABSOLUTE CALIBRATION

WHICH ANALYZING POWER WE USE:

| Born | AP[%]      | By                              |
|------|------------|---------------------------------|
| 1992 | 9.01       | Simulation                      |
| 1994 | 9.61       | Rise-Time, Flat Machine         |
| 1997 | 9.61+/-0.1 | Rise-Time, Rotator ON           |
| 2002 | 8.94+/-0.1 | MC with preshower and Rise-Time |
| 2003 | 9.26       | 2D fit offline analysis         |