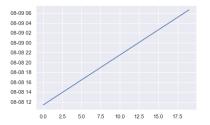
# Krypton Calibration Run 7430

Krypton Calibration Group

## Conditions and data

Table: Conditions and data for run 7430

Conditions	Data
run number	7430
file range	(0,7615)
date	2019-08-09
lab temperature:	20.5 deg
Total number of S2s	2975868
Total number of events	1481147



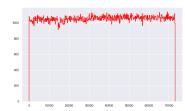


Figure: Run data.

Table: S1 & S2 for run 7430

Conditions	Data
fraction of S1s	0.51
fraction of S2s (1 S1)	0.56
fraction 1 S2 & 1 S1	0.29

Table: S1 & S2 selection for run 7430

Variables	Data
s <sub>1</sub> energy	3 pes to 25 pes
s <sub>2</sub> energy (PMTs)	3000 pes to 13000 pes
$s_2$ charge (SiPMs)	200 pes to 800 pes
s <sub>2</sub> width	5 $\mu s$ to 15 $\mu s$
n <sub>sipm</sub> min	15

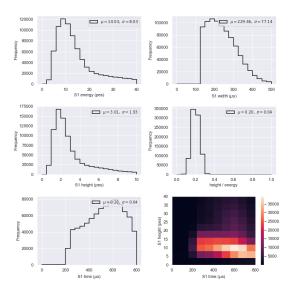


Figure: S1 distributions.

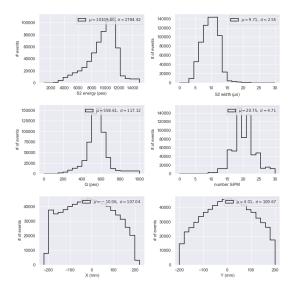


Figure: S2 distributions.

## Control distributions

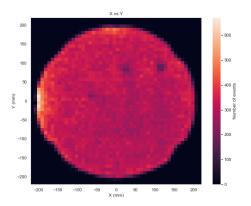


Figure: XY distribution.

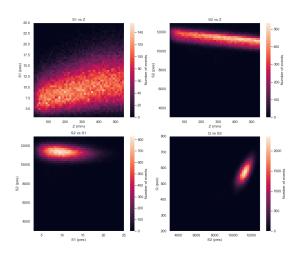


Figure: S1, S2 & Q distributions.

#### Lifetime distributions

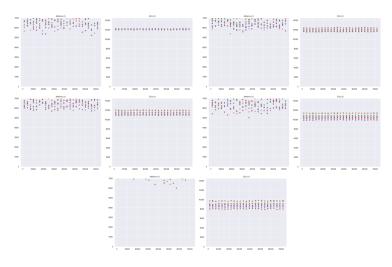


Figure: Distributions of lifetime and  $E_0$  for 5 radial sectors (40, 80, 120, 160, 200).

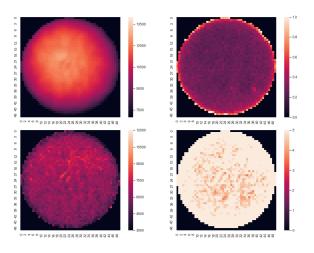


Figure: Lifetime and geometrical map.

# Lifetime maps

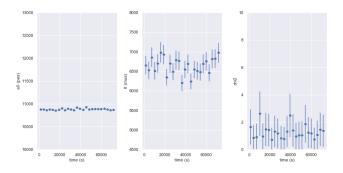


Figure: Average lifetime.

## Lifetime and geometry correction

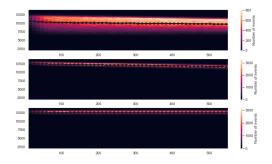


Figure: Lifetime and geometry correction.

# R Profile showing R dropout

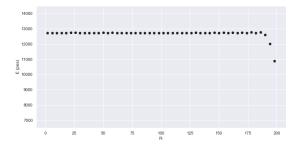


Figure: R profile shows that fiducial volume must be R < 180mm.

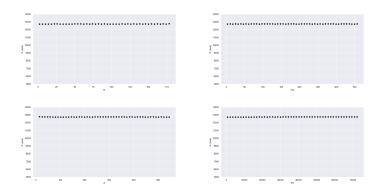


Figure: Profiles showing correction is robust.

#### Resolution fits as a function of R and Z

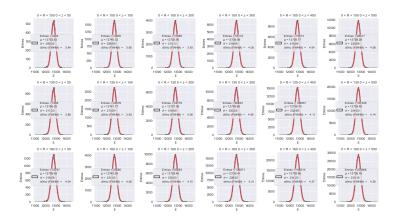


Figure: Resolution fits.

### Resolution as a function of R and Z

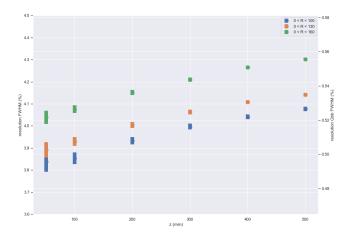


Figure: Resolution fits.

# Efficiency over time



Figure: Efficiency tracking over time.

## Response over time

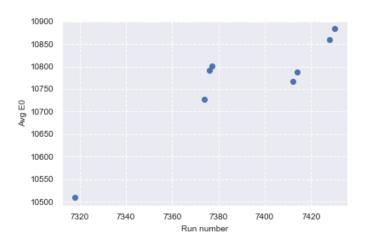


Figure: Response tracking over time.

#### Lifetime over time

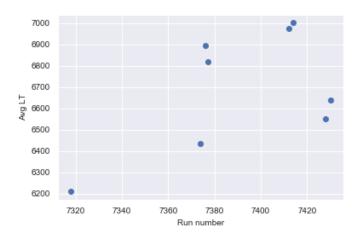


Figure: Lifetime tracking over time.

#### Resolution over time

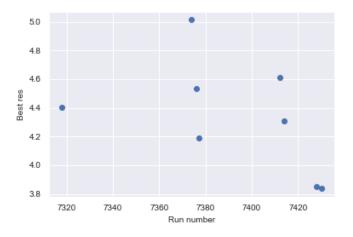


Figure: Resolution tracking over time.