# Kaon LT Status Update

November 26th, 2019

**Richard Trotta** 

# **Current Status**

## Ongoing [ Calibrations]

- Timing windows and reference times
- Richard/Stephen
  - Status Completed

#### Calorimeter

- Hamlet/Richard/Hakob/Stephen/Vladimir/Vardan
- Status Ongoing

#### Aerogel

- Vladimir
- Status Completed

#### 

- Garth/Vijay
- Status Ongoing

#### HMS Cer

- · Richard/Ali?/Vijay?
- Status Completed

#### HMS DC

- Stephen
- Status Completed

#### SHMS DC

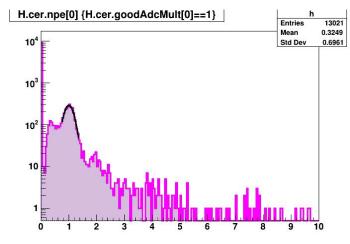
- Richard/Stephen
- Status Completed

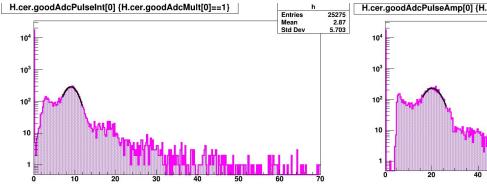
### 

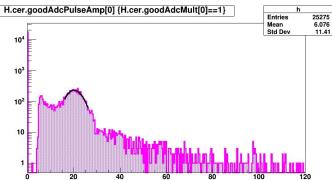
- Vijay/Ali
- Status Completed

# HMS Cherenkov

- ADC time window cut values
  - hcer\_adcTimeWindowMin = 90.,98.
  - hcer\_adcTimeWindowMax = 115.,120.
- Calibration coefficients:
  - Fall 2018: hcer\_adc\_to\_npe = 1./10.69, 1./9.81
  - Spring 2018: hcer\_adc\_to\_npe = 1./9.069, 1./9.035







# hallc\_replay\_lt

- Made a paper going through each directory in hallc\_replay\_lt.
- This is ongoing, but calibration section is complete

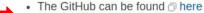
#### Data Analysis

Ana	ysis	lasks

#### Analysis How-To

- . TKaon LT Online Replay Git Repo
- □ L/T Separation Software (see Sec 4.2 of □ https://misportal.jlab.org/ul/publications/view pub.cfm?pub id=15234 for description)
- Hall C Logbook
- 🗇 Kaon LT Logbook
- D Logbook for Analysis
- Online Replay Histograms
- SIMC results for comparison
- Golden SIEVE runs
- 🗇 Heep rate runs and analysis
- Physics runs and analysis
- . D Luminosity scan runs and analysis
- Single Spin Asymmetry Analysis
- High and Low Epsilon Comparison

### Navigating hallc\_replay\_lt





Attached is a summary for all directories in files in hallc replay It [ ONGOING ] hallc replay outline.pdf

#### Hall C Replay Outline

Richard L. Trotta III

November 24, 2019

#### Contents

1	CALIBRATION	2
	1.1 bcm_current_map	2
	1.2 bpm_calib	3
	1.3 dc_calib	3
	1.4 hms_cal_calib	4
	1.5 hms_cer_calib	5
	1.6 hms_hodo_calib	5
	1.7 hms_dc_calib	6
	1.8 hodo_calib	7
	1.9 ref_time	7
	1.10 shms aero calib	8
	1.11 shms_cal_calib	8
	1.12 shms_hgcer_calib	9
	1.13 shms_hodo_calib	9
2	DATFILES	12
	2.1 hms_recon_coeff.dat	12
	2.2 hms recon coeff opt2018.dat	12
	2.3 shms-2019-newopt-Jan19.dat	12
	2.4 shms-2017-optimized-2plot.dat	12
	2.5 shms-2017-optimized.dat	12
	2.6 shms-2011-26cm-monte q2 m015 sec.dat	12
	2.7 SHMS_fr_3_rec_order_#.dat	12
3	db2	12



# Next Steps

• Finalize calibrations

# On deck [Efficiencies and offsets]

# Luminosity

Status Ongoing

### **Elastics**

Status Ongoing

### First iteration of cross section

Status On deck