

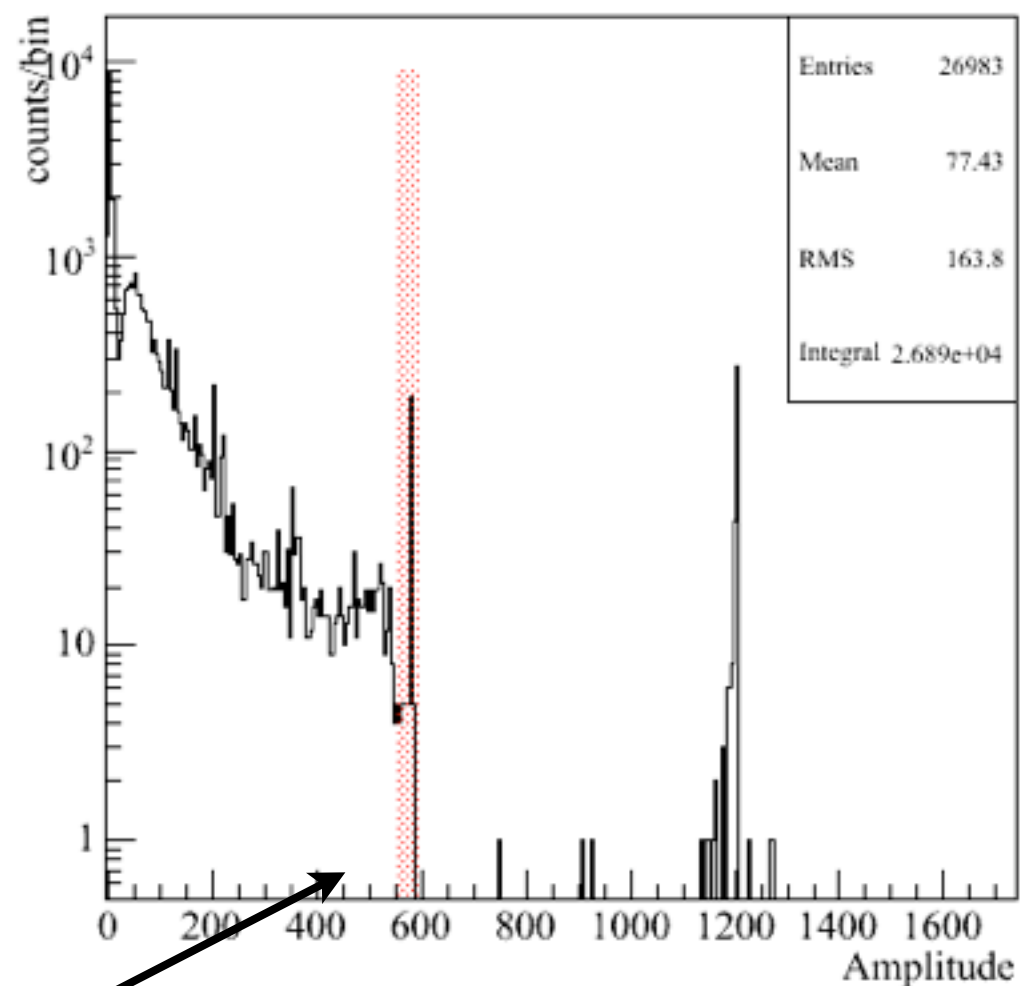
Stabilization Tool

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12/06/2012

Outline

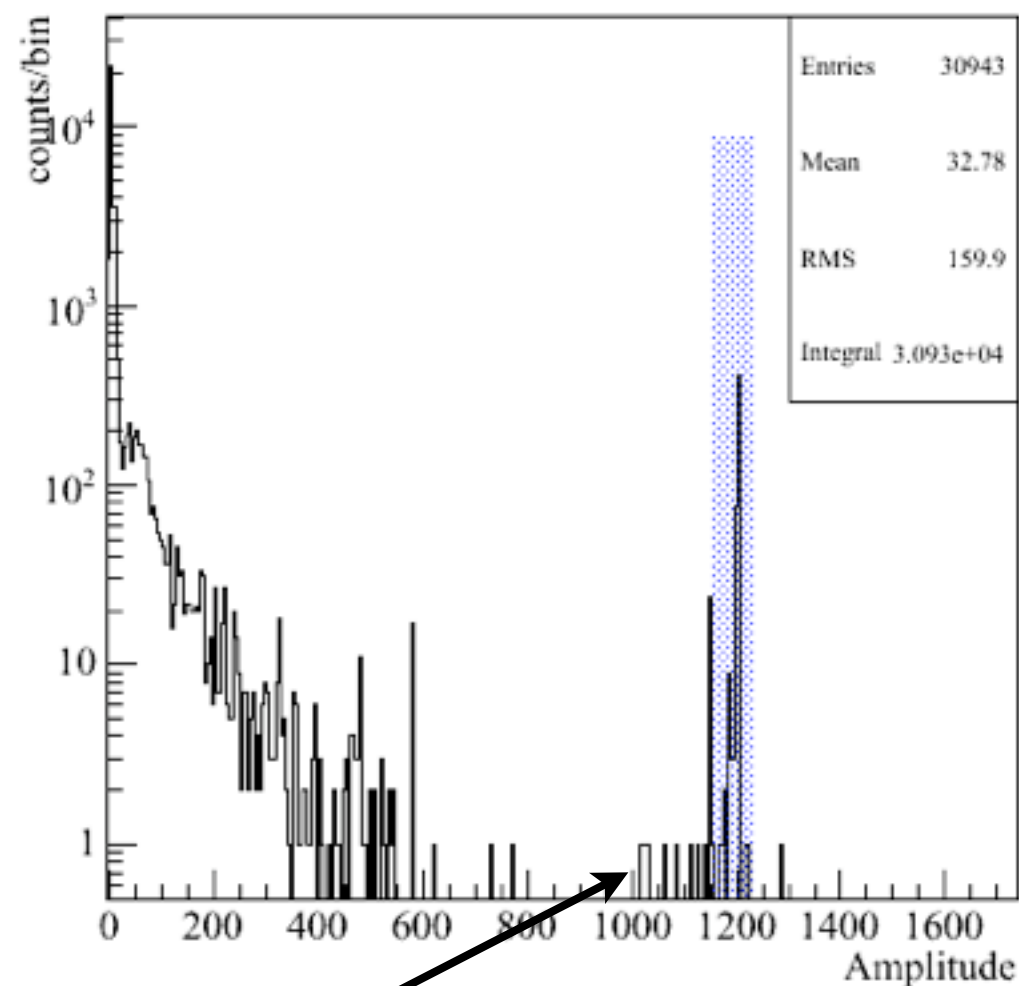
- Try to reduce 'manual' labor / monotony involved in stabilizing on Po210
- Provide an interface to do a quality check on the stabilization intervals

Amplitude For Cal Run 600537 Channel 16



The ^{208}Tl peak is pretty clear in the calibration data. Find this peak and use it to establish approximate Amp->E conversion factor

Amplitude For BKG Run 600534 Channel 16



Using approximate Amp->E conversion from calibration data define a '+/- 200 keV' window around the expected position of ^{210}Po and write this window to a StabPeaks file

These plots are published on a webpage for analyzers to check. If windows look reasonable users can download and use the StabPeaks file

Development version of website at: cuore.lbl.gov/~tdonnell/dbbrowser
 cuore is user
 pw = s!lcy12



Welcome to the CUORE Run Summary Page @ LBL

From here you can browse the existing data sets, find out information about the runs etc. Click on an experiment on the right to proceed. This page is still being developed.

Click on HallC_CUORE to get a dataset listing for that apparatus

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 CUORE

Data Set Summary List

Here is the data set listing for HallC_CUORE. Click on the link of the data set to learn more about the runs etc.

| Data Set | Start Run | Stop Run | Start Date | End Date |
|----------------------|-----------|----------|----------------------------|----------------------------|
| 6082 | 600537 | 600542 | 2012-11-23 14:06:18.510904 | 2012-12-03 16:32:38.330194 |
| 6079 | 600517 | 600537 | 2012-10-31 14:08:36.882713 | 2012-11-02 11:35:52.717319 |
| 6076 | 600514 | 600518 | 2012-10-30 22:09:52.882713 | 2012-11-02 11:35:52.717319 |
| 6073 | 600502 | 600514 | 2012-10-12 18:15:17.460635 | 2012-10-31 09:49:34.882713 |
| 6070 | 600488 | 600501 | 2012-10-06 18:43:38.449662 | 2012-10-12 18:15:05.921624 |

Click on a dataset number

Run Listing for Data Set 6079

8:31.376399
 04:14.4672
 3:35.985948

Livetime summary

This is the live time summary for data set 6079. Note this is just (stop_time - start_time).

| Data Set | Total LT [days] | % Background | % Calibration | % Test |
|----------|-----------------|--------------|---------------|--------|
| 6079 | 25.54 | 0.74 | 0.19 | 0.08 |

Here is the runs listing for data set 6079. Click on the link of the run to learn more about the runs etc.

| Run | Run Type | Stop Status | Start Date | End Date |
|------------------------|-------------|-------------|----------------------------|----------------------------|
| 600537 | Calibration | OK | 2012-11-23 14:06:18.510904 | 2012-11-23 14:06:18.510904 |
| 600536 | Test | OK | 2012-11-23 12:35:30.693879 | 2012-11-23 12:35:30.693879 |
| 600535 | Background | OK | 2012-11-23 12:23:02.945948 | 2012-11-23 12:24:14.945948 |
| 600534 | Background | OK | 2012-11-19 11:10:06.389773 | 2012-11-23 10:57:22.389773 |
| 600533 | Background | OK | 2012-11-14 18:22:53.173561 | 2012-11-19 09:54:07.173561 |
| 600532 | Test | OK | 2012-11-14 14:08:13.182713 | 2012-11-14 18:22:01.182713 |

Click on a run number

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Details for Run 600534

Here are some details for run 600534, a member of dataset 6079. More flesh will be added to this skeleton as it is added.

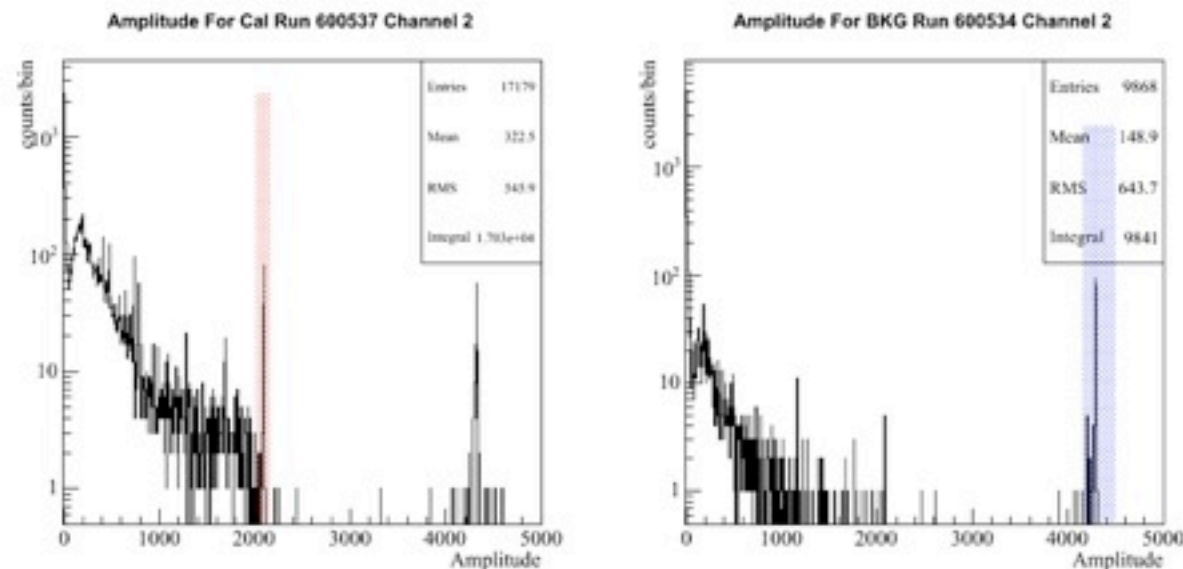
[First pass stabilization tool](#)

This gets you to a page devoted to that run. Not much info yet, but try the 'First pass stabilization tool' for BKG runs

First pass stabilization for 600534

The figures below show the OF_Amplitude for the run, and channel indicated in the caption. The left column is calibration data, the right column is for the background run 600534. The semi-automatic stabilization tool uses calibration data to establish an approximate amplitude->energy relationship using the 208Tl peak. If the tool worked the 208Tl peak should be in the red shaded box. With this amplitude->energy relationship the tool estimates the amplitude window for the 210Po peak in the background run. The window is the blue shaded box on the right hand plot. If the tool worked there should be a peak corresponding to 210Po events in the blue box. The tool writes a 'StabPeaks' file for 210Po which is linked below. If the plots look reasonable you can use this StabPeaks file for your analysis. Looking at file : /home/donnell/public_html/dbbrowser/Diagnostics/StabilizationPass1/DS6079/StabPeaksFirstPassForRun600534_DS6079.html

Channel 2



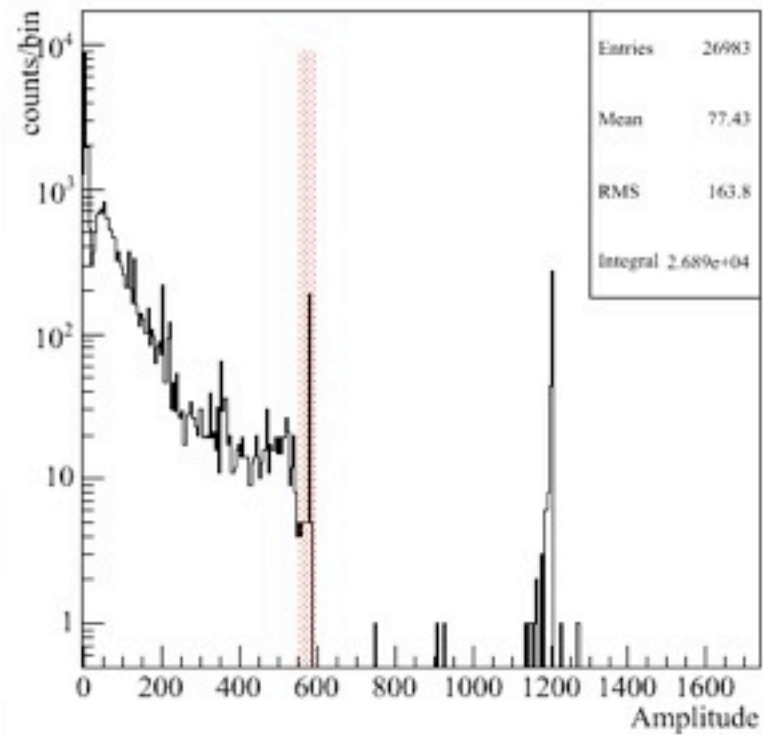
Channel 3

Amplitude For Cal Run 600537 Channel 3 Amplitude For BKG Run 600534 Channel 3

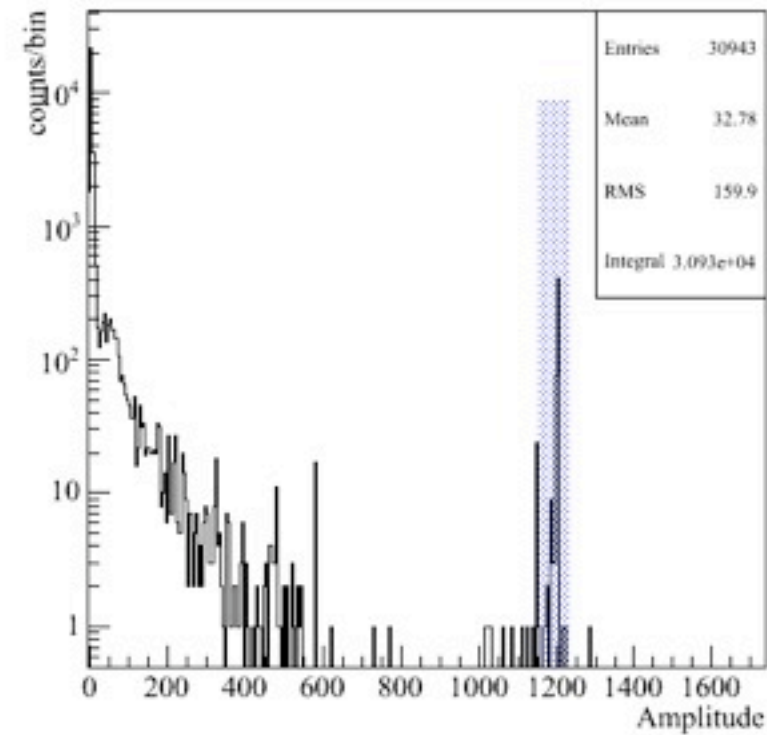
Inspect the stabilization sanity check plots for the channels

Channel 16

Amplitude For Cal Run 600537 Channel 16

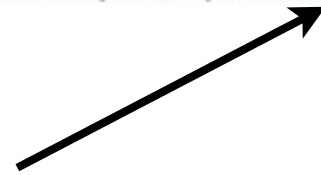


Amplitude For BKG Run 600534 Channel 16



StabPeaks File

If the plots look reasonable then the StabPeaks file should be ok. Feel free to download it for your analysis: [StabPeaksFirstPassForRun600534_DS6079.txt](#)



If the plots look sane, the StabPeaks File is good and you can download it to use in your analysis

To do/ Possible Improvements

- Currently tool produces StabPeaks files on the run level, easy to make it do dataset level
- Add check box that quality-checker can click: If the stabilization looks sane write the StabPeaks file to an 'Official' directory on PDSF for common use and/or the database
- Add dialog box to let quality-checker interactively move the window and update the StabPeaks file if the automatic stabilization does not look sane
- Pretty up the webpage and move into production:)