

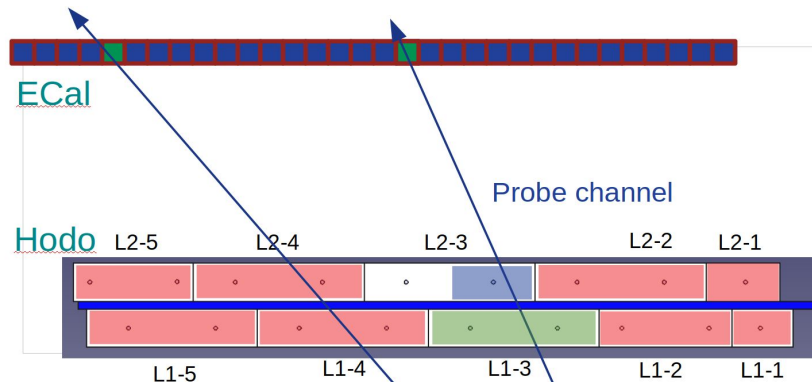
Hodoscope Gain Calibration

During the run, we observed gain dependence on Luminosity, also lose of gain as a function of time observed too.

28 runs were selected where either the target thickness or the beam current was changed.

Run_min	Run_max	Current [nA]	Target Thickness [um]	
10048	10059	200	8	1600
10060	10067	100	8	800
10068	10069	125	8	1000
10070	10129	150	8	1200
10130	10130	150	4	600
10131	10170	150	8	1200
10171	10185	175	8	1400
10186	10239	150	8	1200
10240	10358	200	8	1600
10359	10359	100	8	800
10360	10361	55	20	1100
10362	10364	200	8	1600
10365	10368	80	20	1600
10369	10375	100	20	2000
10376	10378	120	20	2400
10379	10407	100	20	2000
10408	10418	110	20	2200
10419	10463	120	20	2400
10464	10497	100	20	2000
10498	10507	110	20	2200
10508	10511	120	20	2400
10512	10514	110	20	2200
10515	10522	300	8	2400
10523	10524	110	20	2200
10524	10535	200	8	1600
10536	10652	120	20	2400
10653	10654	80	20	1600
10655	10740	120	20	2400

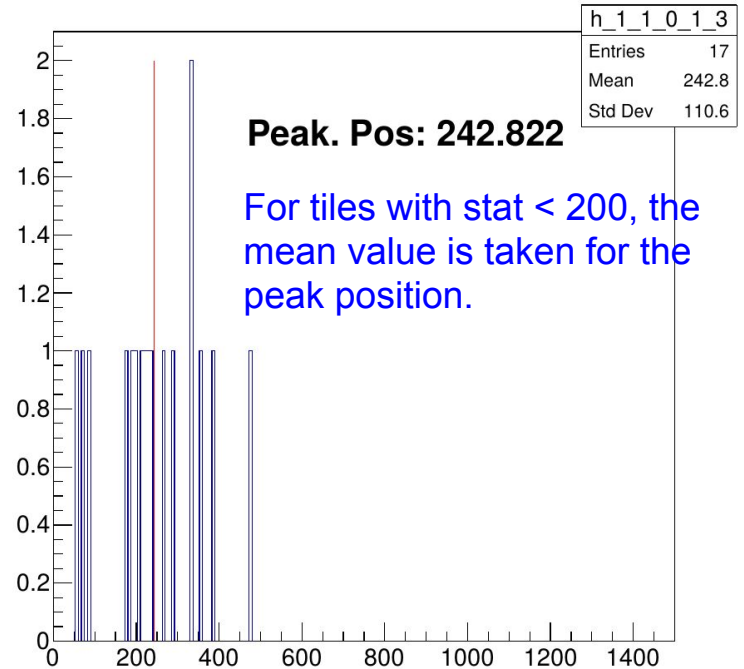
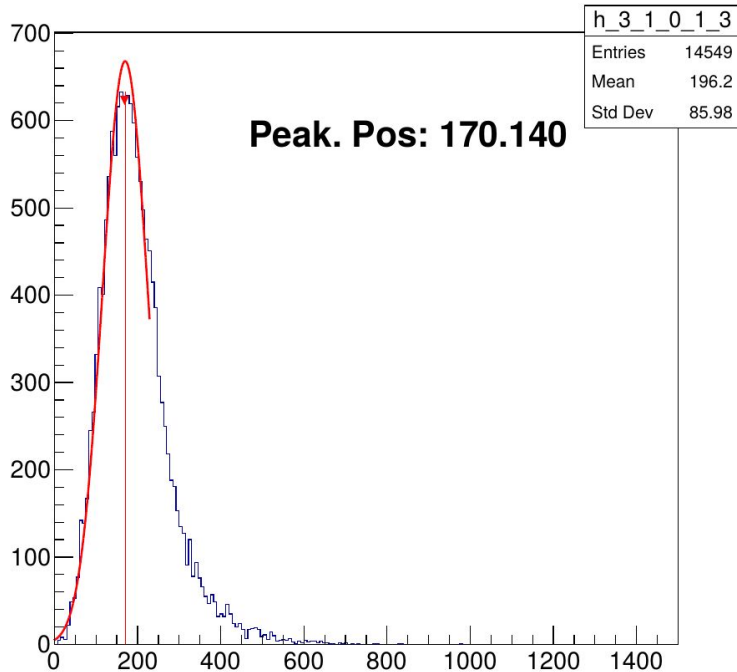
- A Hit in the next layer, that geometrically matched to the probe channel, and absence of a hit in the rest of Hodo channels.
- A positive track
- A cluster in the positron side, that is geometrically matched to the Hodo tile



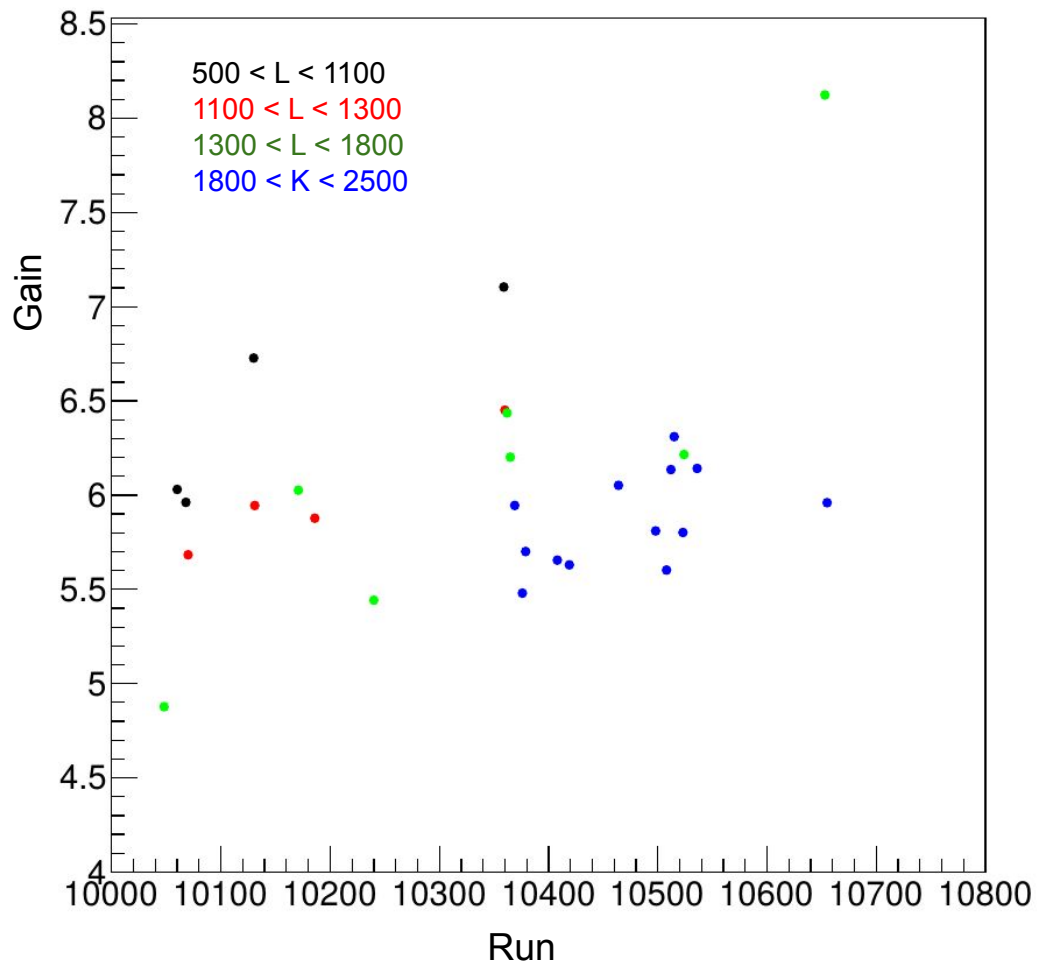
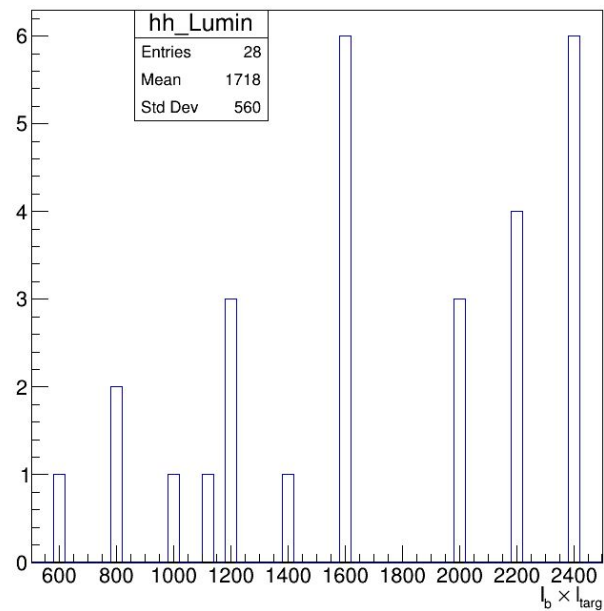
The “Gain” is defined a number, that brings the MIP peak value to 1000. Note: actual PMT gain is inversely proportional to this “Gains”.

Most of tiles have a lot of statistics, except the most right tiles, where there are very limited tracks are passed through.

From each run 30 files were cooked: 1st 10, last 10 and middle 10 files



Different Luminosities



- Gains were obtained from all runs where luminosities are changed.
- Some more runs probably will be cooked in between a long “No Lumin change” runs, to account time dependent gain drop.
- Check in more detail, if there are failed fits
- After above is done, should be ready to upload gains into DB.