

Beam test status update

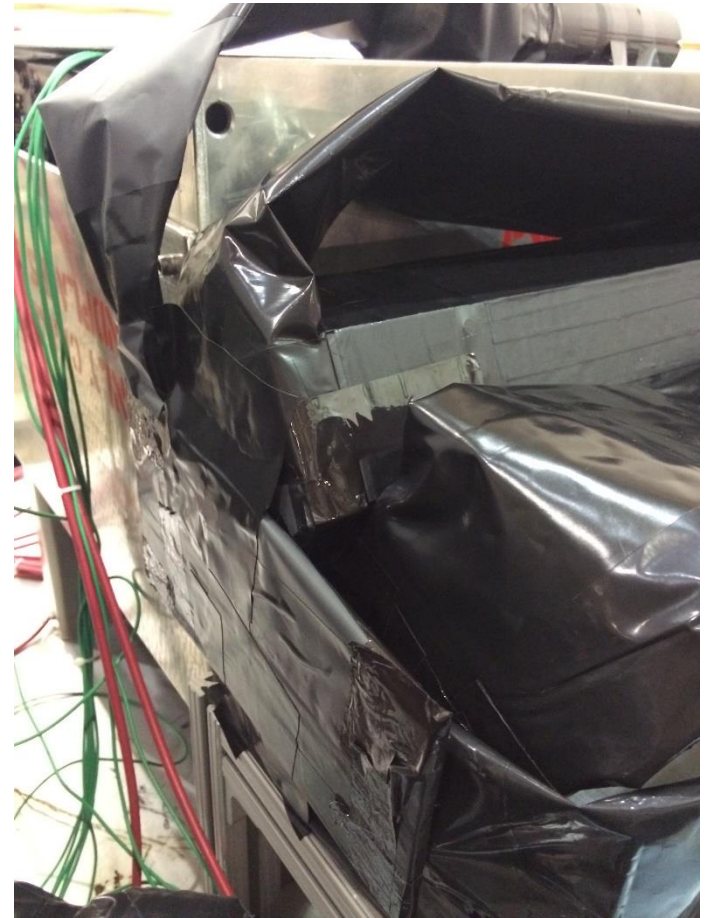
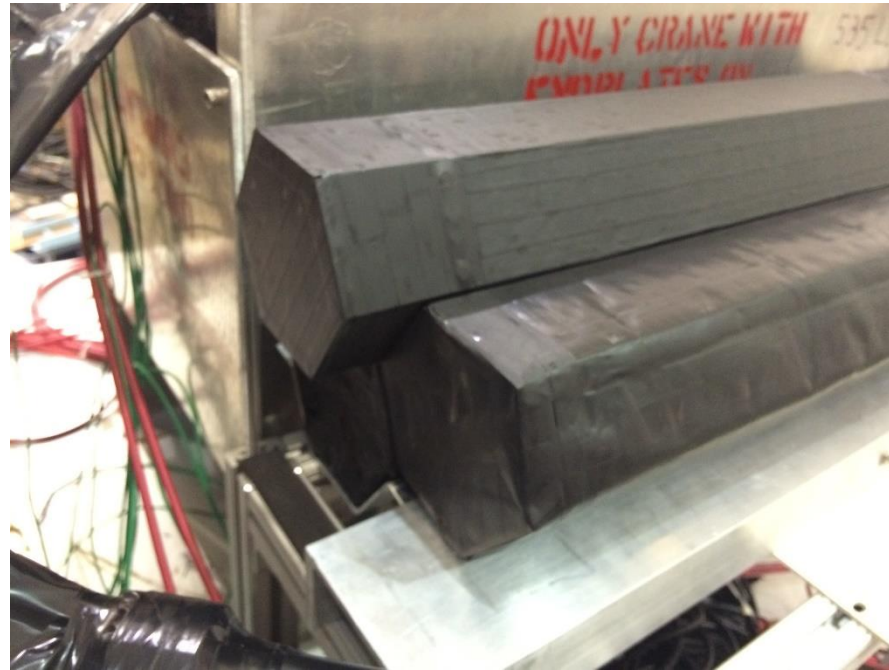
11/03/2016

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Update

- Rearrange the setting of detectors, make three shashlyk module as a cluster.
- Add third FADC board, but readout is failed, need to reset address.
- Add SUM of preshower and shashlyk to TDC channel, try to add separate module to TDC later
- Add SUM of SoLID detectors to scaler
- Data taking rate previous is 30, could reach 40 now.

Rearrange the geometry of SoLID detectors



Rate with cosmic after changing geometry

===== 1151 Scalers =====					===== 1151 Scalers =====				
scaler num 1					scaler num 1				
Type	Counts	Rate (Hz)	Rate (KHz)		Type	Counts	Rate (Hz)	Rate (KHz)	
10 KHz pulser	101434	10000.00	10.00		10 KHz pulser	101335	10000.00	10.00	
Front Top scint	47	4.63	0.00		Front Top scint	49	4.84	0.00	
Front Mid scint	53	5.23	0.01		Front Mid scint	79	7.80	0.01	
Front Bot scint	63	6.21	0.01		Front Bot scint	70	6.91	0.01	
OR of Front scint	147	14.49	0.01		OR of Front scint	163	16.09	0.02	
Calorimeter Trigger	350	34.51	0.03		Calorimeter Trigger	1276	125.92	0.13	
L1A	0	0.00	0.00		L1A	0	0.00	0.00	
TDC Common Stop	0	0.00	0.00		TDC Common Stop	0	0.00	0.00	
TI Busy	0	0.00	0.00		TI Busy	0	0.00	0.00	
Trigger	0	0.00	0.00		Trigger	0	0.00	0.00	
MPD clock	0	0.00	0.00		MPD clock	0	0.00	0.00	
S4	9	0.89	0.00		S4	3	0.30	0.00	
S5	67	6.61	0.01		S5	39	3.85	0.00	
Calo row 1					Calo row 1	266	26.25	0.03	
Calo row 2					Calo row 2	21	2.07	0.00	
Solid calo					Solid calo	16	1.58	0.00	
hac_bcm_average		0.0521651			hac_bcm_average		0.0528427		
haBDSPOS.VAL		6.8488e+06			haBDSPOS.VAL		2.57999e+07		
haBDSPOS		6.8488e+06			haBDSPOS		2.57999e+07		
haBDSSELECT		Carbon			haBDSSELECT		Loop 2		



Cosmic rate get higher. Since SoLID calo rate is so low and no other change, why the rate get high? Need to check.

Scaler rate with beam on

Sun Oct 30 16:26:14 EDT 2016

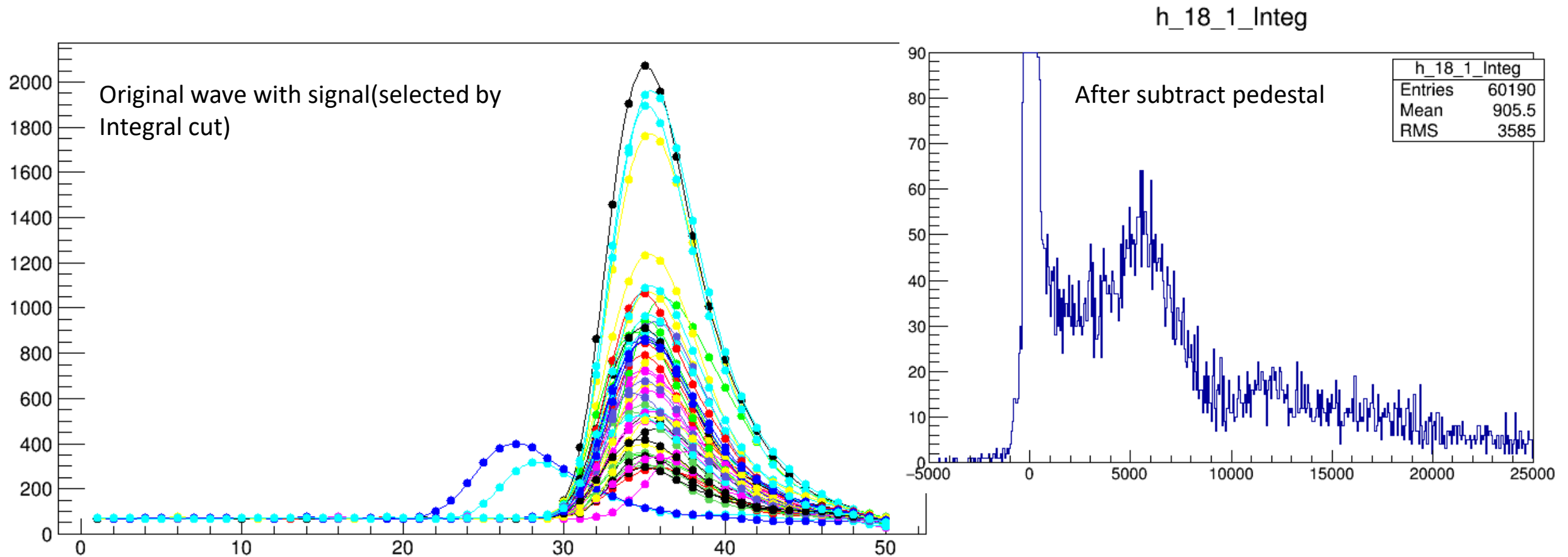
Type	Counts	Rate (Hz)	Rate (KHz)
10 KHz pulser	101881	10000.00	10.00
Front Top scint	4094456	401886.12	401.89
Front Mid scint	10800795	1060138.30	1060.14
Front Bot scint	8701107	854046.09	854.05
OR of Front scint	22204054	2179410.69	2179.41
Calorimeter Trigger	1162274	114081.53	114.08
L1A	269	26.40	0.03
TDC Common Stop	269	26.40	0.03
TI Busy	269	26.40	0.03
Trigger	538145	52820.94	52.82
MPD clock	579469	56877.04	56.88
S4	101967	10008.44	10.01
S5	2063590	202549.05	202.55
hac_bcm_average		67.6139	
haBDSPOS.VAL		2.57999e+07	
haBDSPOS		2.57999e+07	
haBDSSELECT		Loop 2	



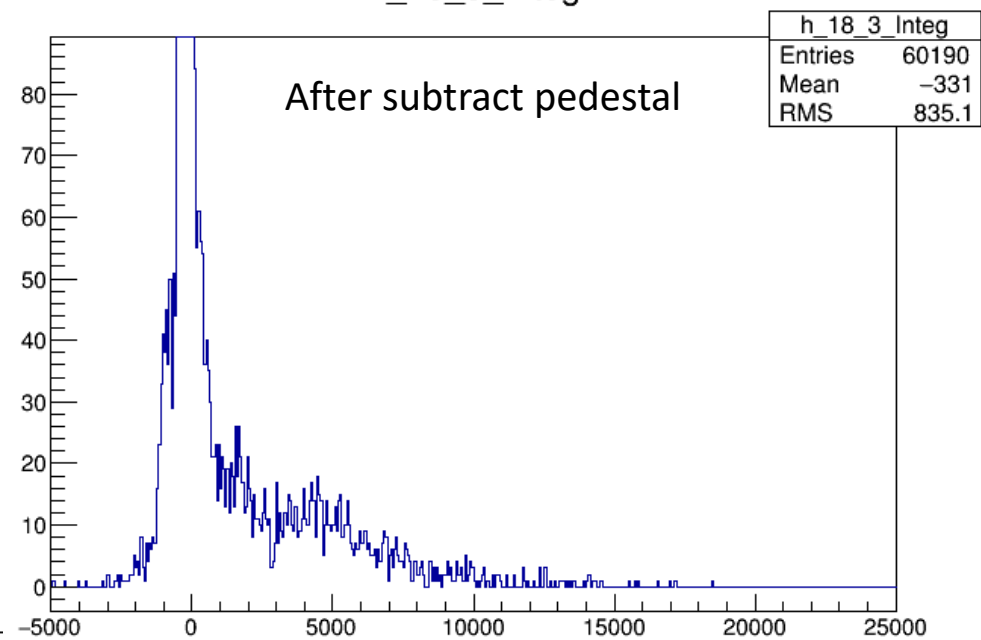
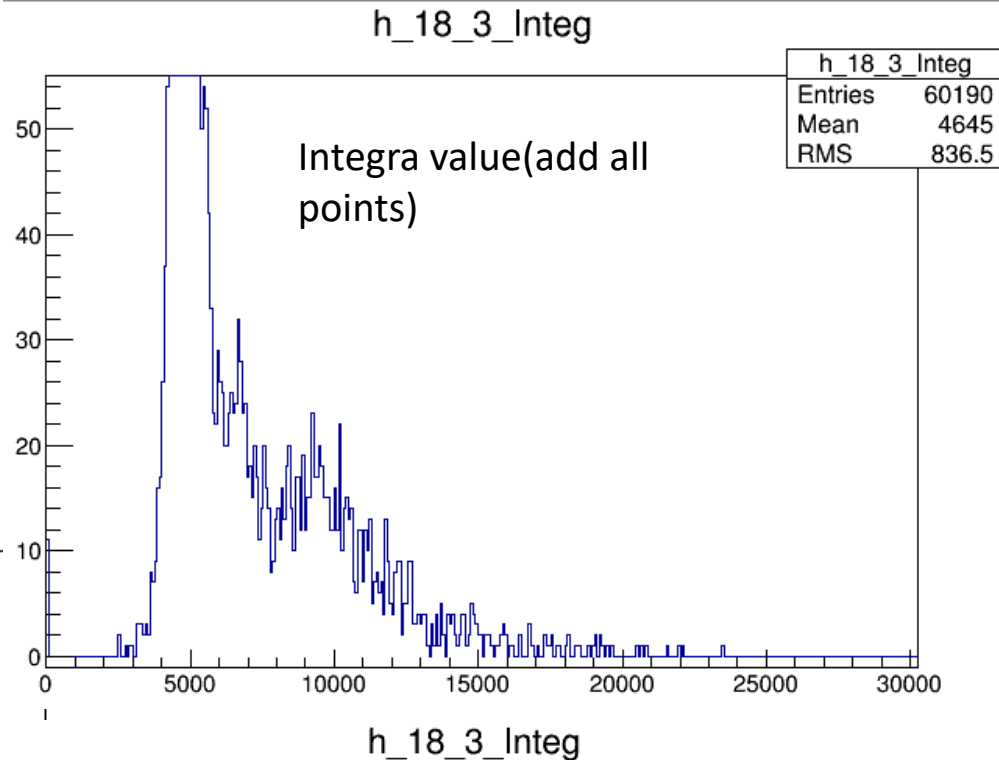
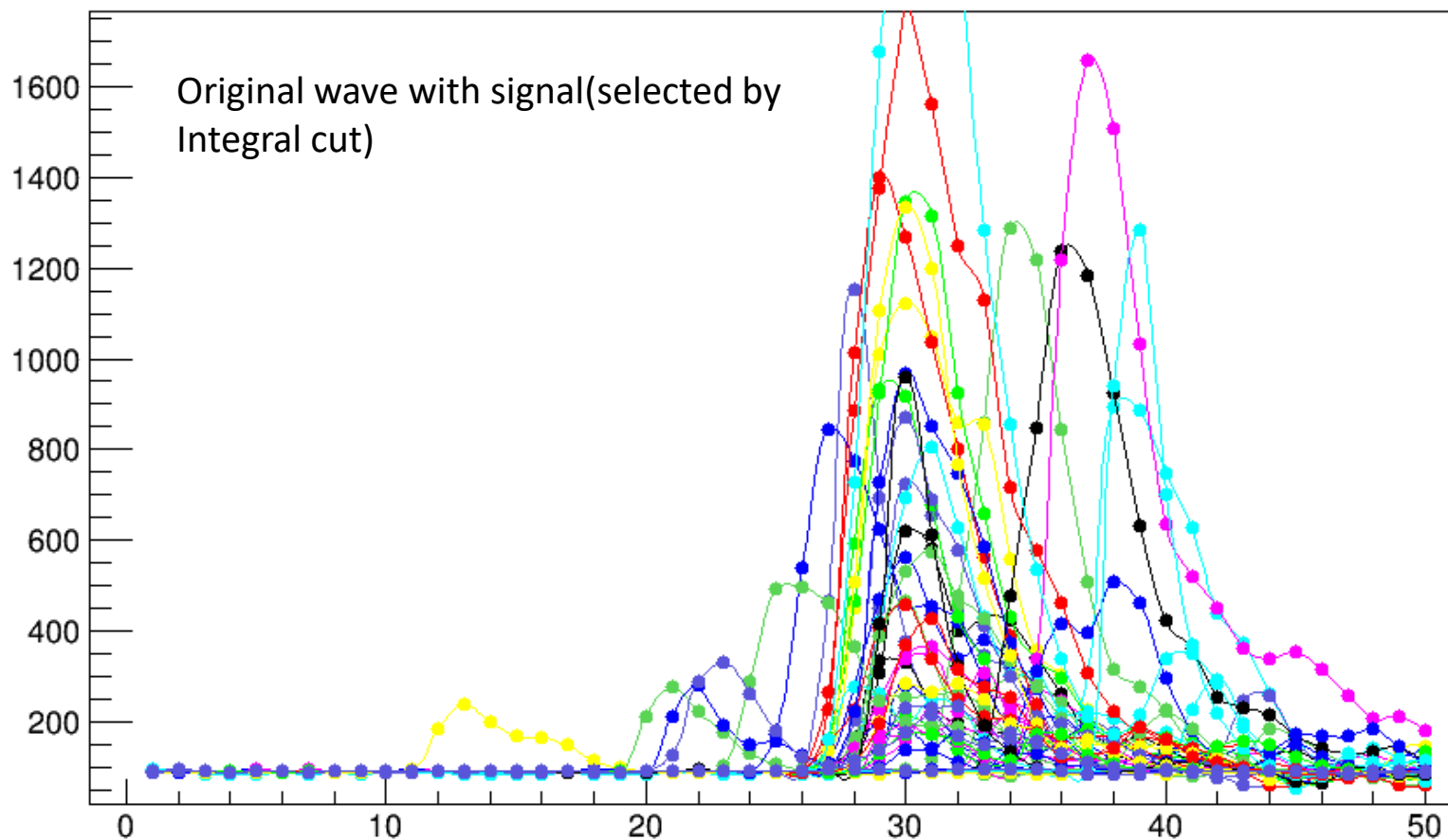
===== 1151 Scalers =====				
scaler num 1				
Type	Counts	Rate (Hz)	Rate (KHz)	
10 KHz pulser	101705	10000.00	10.00	
Front Top scint	1067427	104953.25	104.95	
Front Mid scint	6704471	659207.61	659.21	
Front Bot scint	8493716	835132.59	835.13	
OR of Front scint	15720471	1545693.03	1545.69	
Calorimeter Trigger	713640	70167.64	70.17	
L1A	396	38.94	0.04	
TDC Common Stop	396	38.94	0.04	
TI Busy	396	38.94	0.04	
Trigger	182093	17904.04	17.90	
MPD clock	197115	19381.05	19.38	
S4	22200	2182.78	2.18	
S5	454989	44736.15	44.74	
Calo row 1	260823	25645.05	25.65	
Calo row 2	64523	6344.13	6.34	
Solid calo	45108	4435.18	4.44	
hac_bcm_average		9.98187		
haBDSPOS.VAL		2.57999e+07		
haBDSPOS		2.57999e+07		
haBDSSELECT		Loop 2		

Ratio compared with Front scintillator is still around 20, high rate with cosmic may caused by light leak.

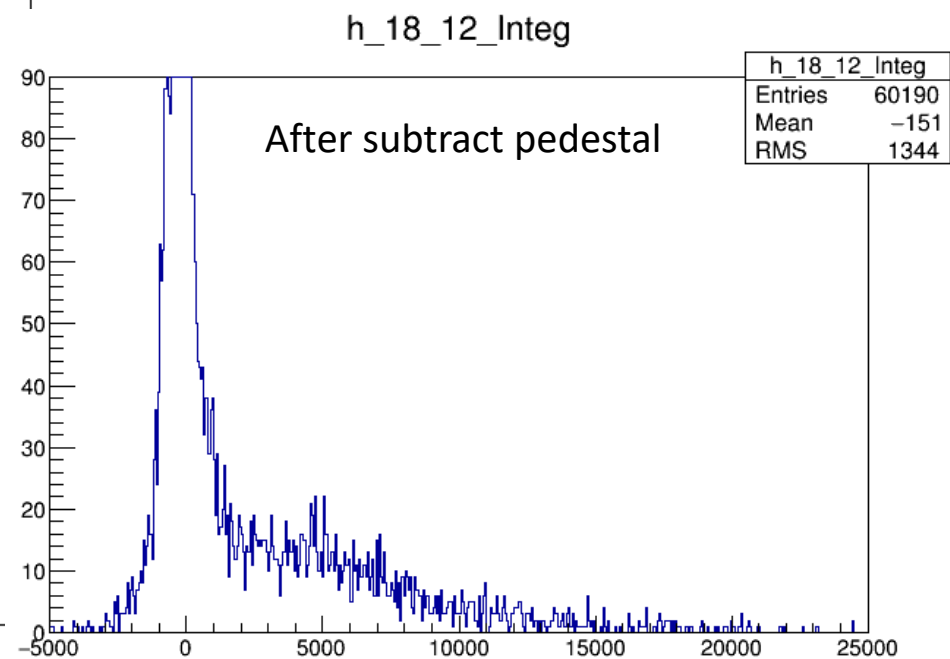
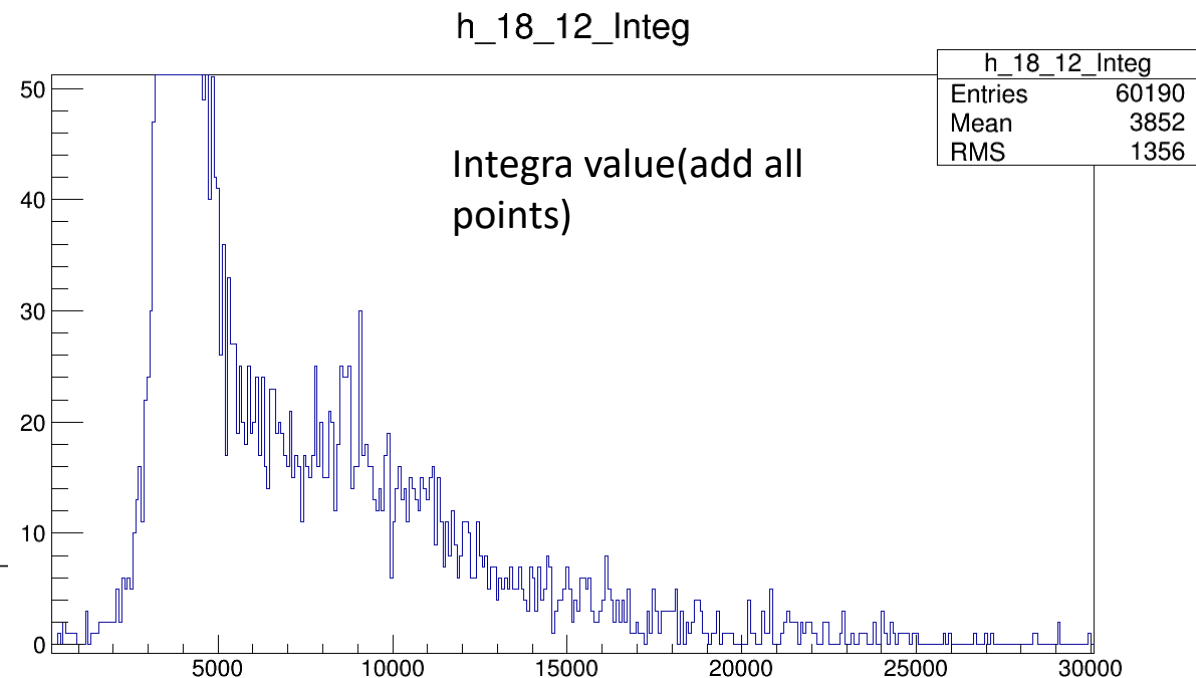
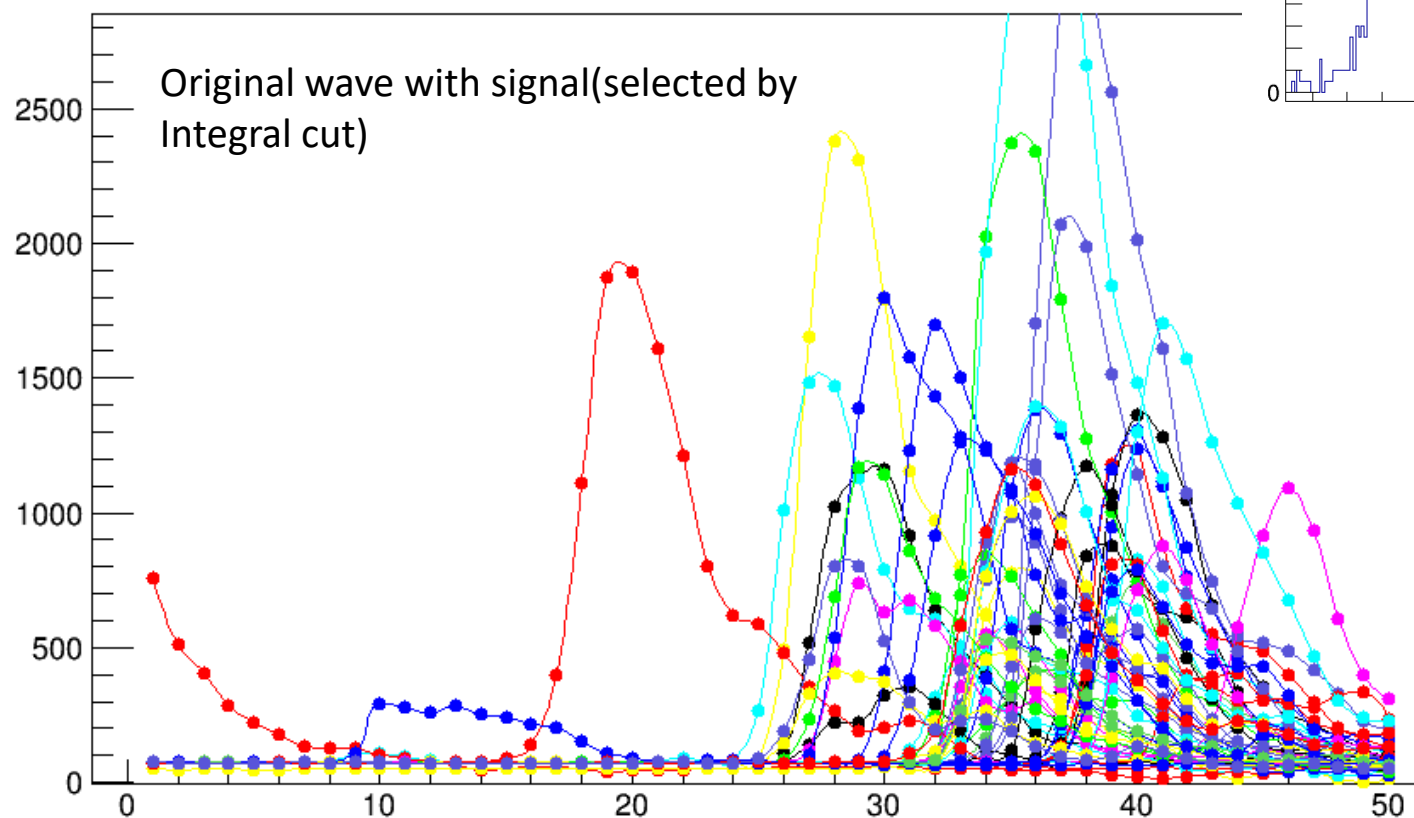
SBS calorimeter



THU module



SDU #1



SDU #2

