Lista di misure fatte

CREMAT(2)	PLANARE	scan di guadagno e in soglia
CAEN	PLANARE	scan di guadagno e in soglia
CREMAT(1)	GROOVED	scan di guadagno e in soglia
CREMAT(2)	GROOVED	scan di guadagno e in soglia
CAEN	GROOVED	scan di guadagno e in soglia
CREMAT(2)	GROOVED	scan in soglia + TRIGGER TOP

Cosa c’è

Confronto CAEN e CREMAT planare

Confronto CAEN e CREMAT grooved

Confronto simulazione e misure di energia depositata

Cosa manca

Misura del rate di acqusizione

Analisi col GROOVED e 6kV/cm drift field

Confronto trigger HV side – NO HV side nel CREMAT(2)

Analisi con doppio segnale da TOP e READOUT (coincidenza?)

CATODO BORATO PLANARE da 2.5 µm - CREMAT

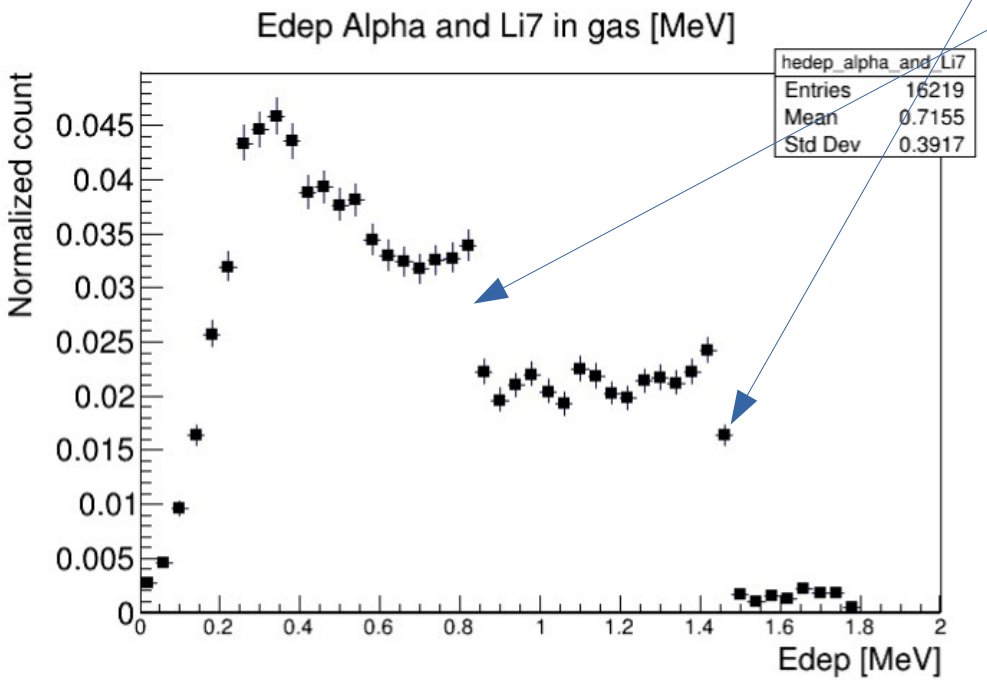
Spalla del litio

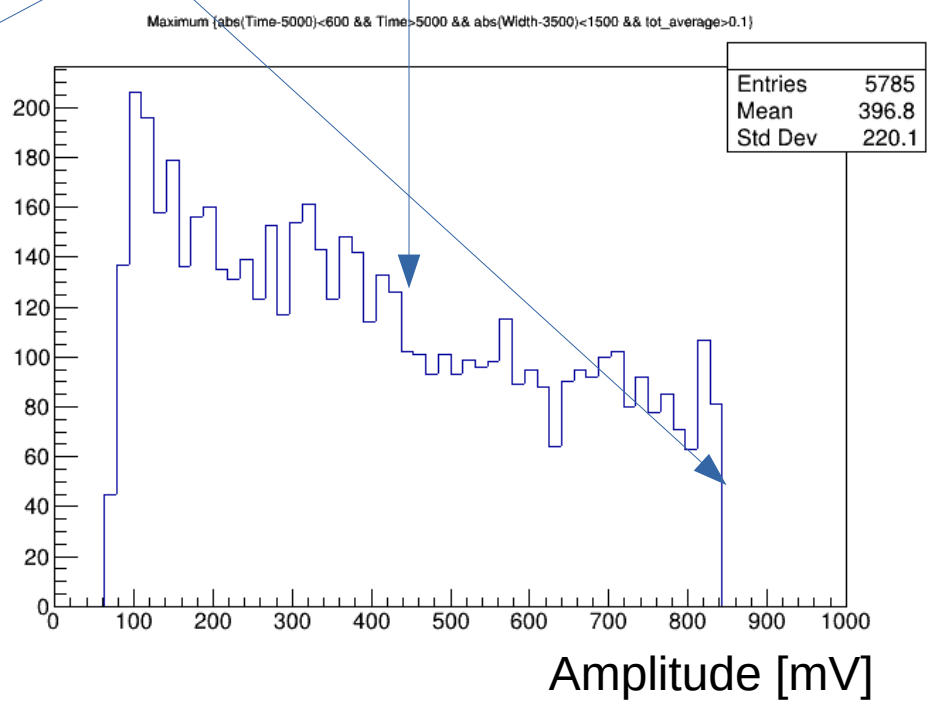
Spalla dell'alfa

SIMULAZIONE

MISURA

Gain 500





Conto a spanne: 1.4MeV~820mV → 50mV di thr sono 0.08 MeV → vediamo tutto lo spettro

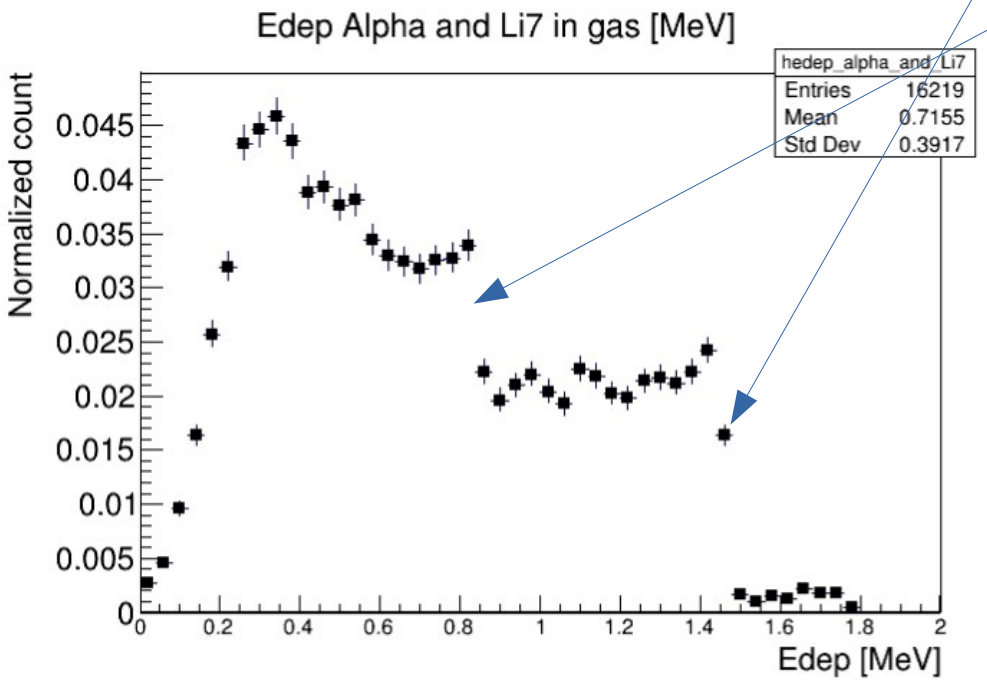
CATODO BORATO PLANARE da 2.5 µm - CREMAT

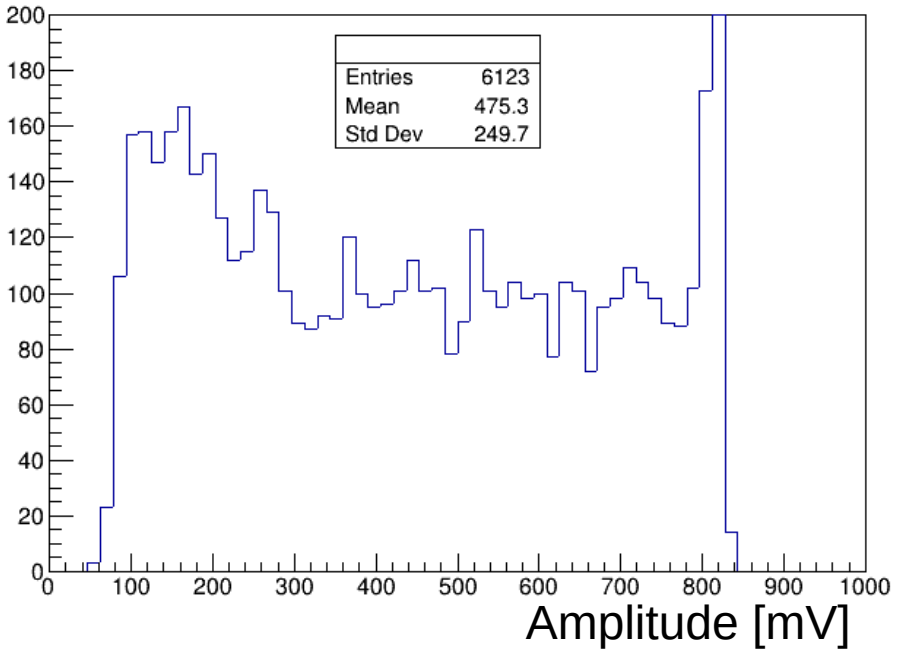
Spalla del litio

Spalla dell'alfa

SIMULAZIONE

MISURA
Gain 1000





Conto a spanne facendo quello prima(500) x2 → 50mV di thr sono 0.04 MeV

CATODO BORATO PLANARE da 2.5 µm - CAEN

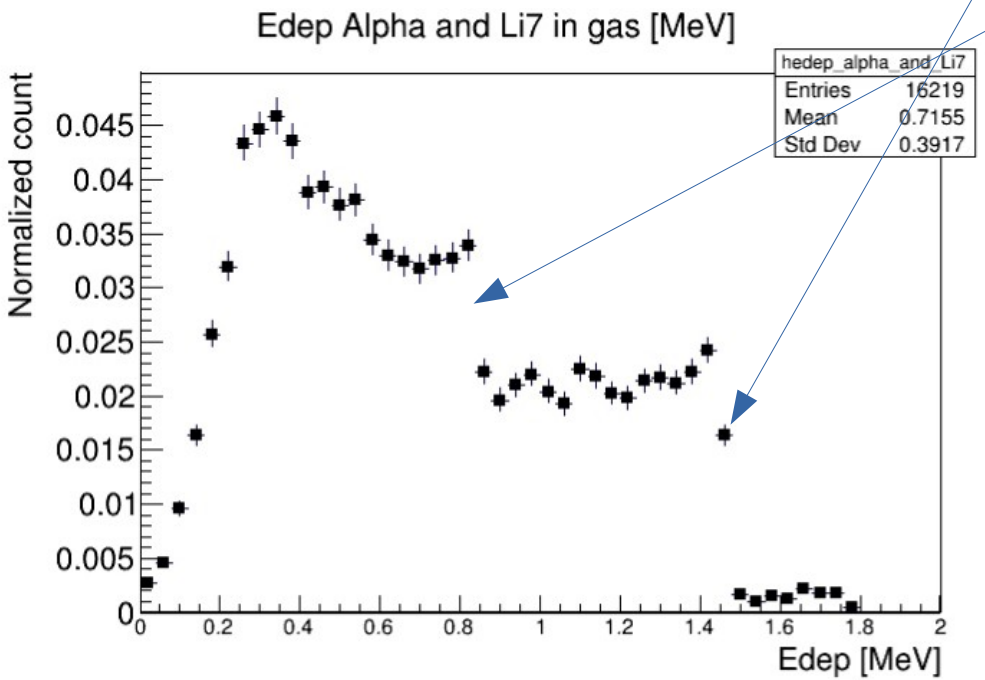
Spalla del litio

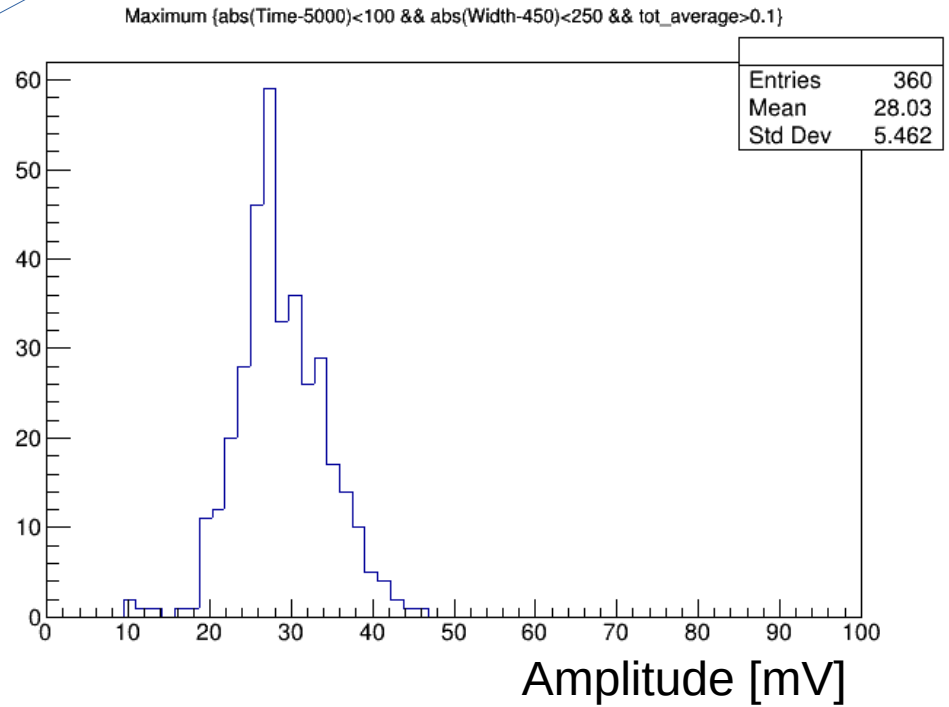
Spalla dell'alfa

SIMULAZIONE

MISURA

Gain 500





Distribuzione non chiara e molto compatta. Differente da quella "storica" acquisita sul TOP

CATODO BORATO PLANARE da 2.5 µm - CAEN

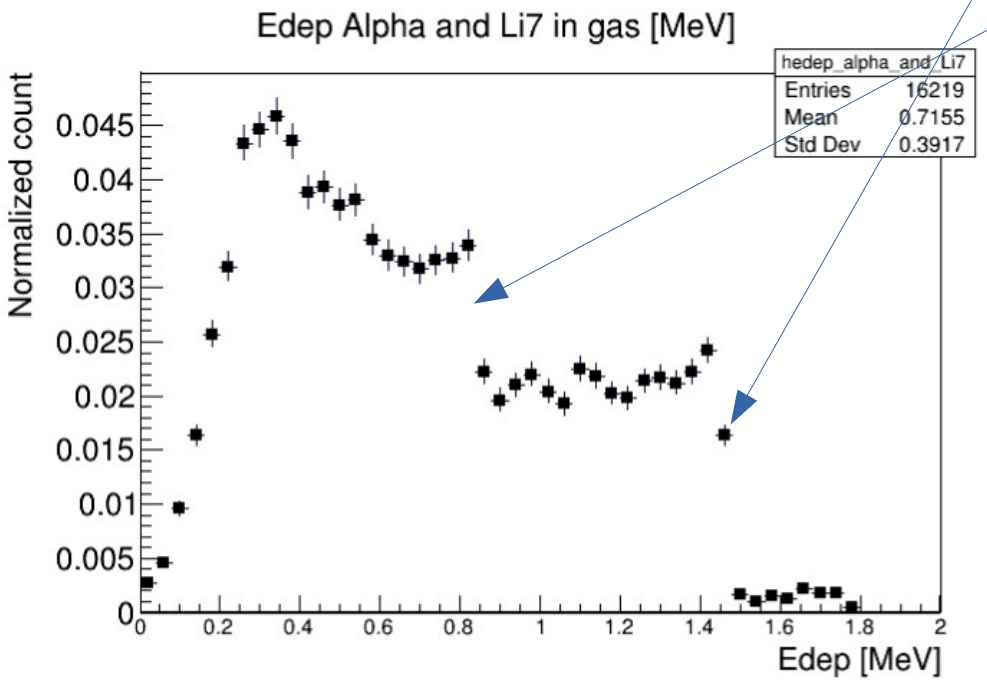
Spalla del litio

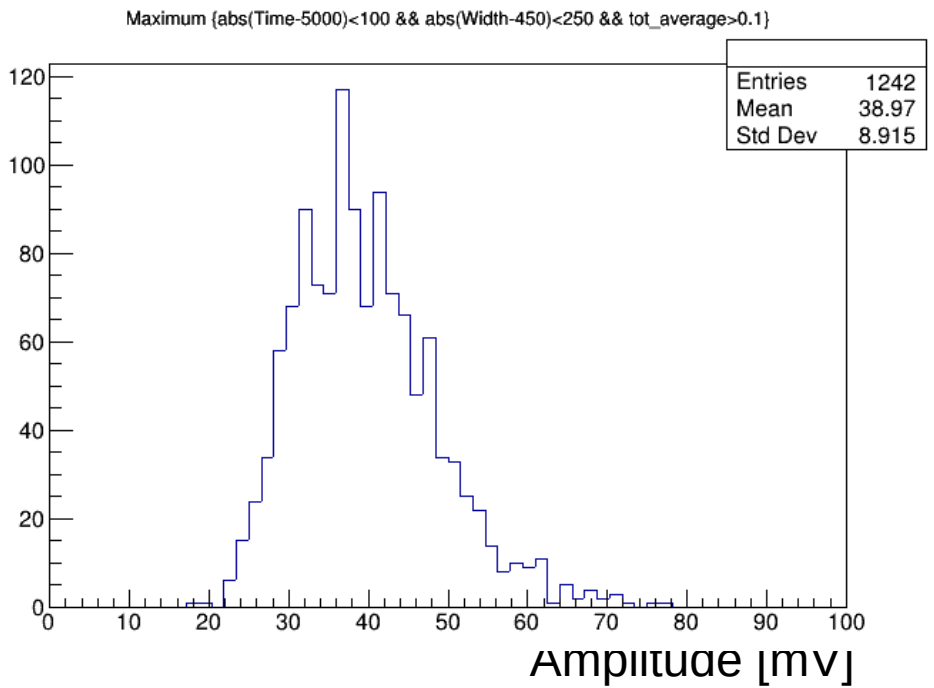
Spalla dell'alfa

SIMULAZIONE

MISURA

Gain 1000



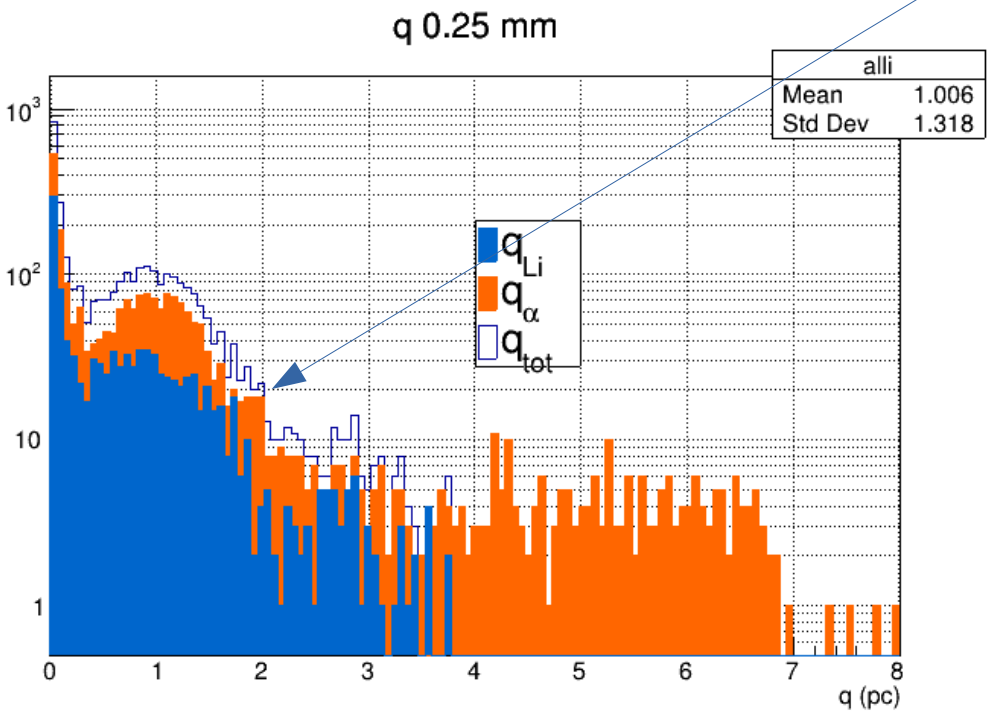


Distribuzione meno compatta

CATODO BORATO GROOVED - CREMAT

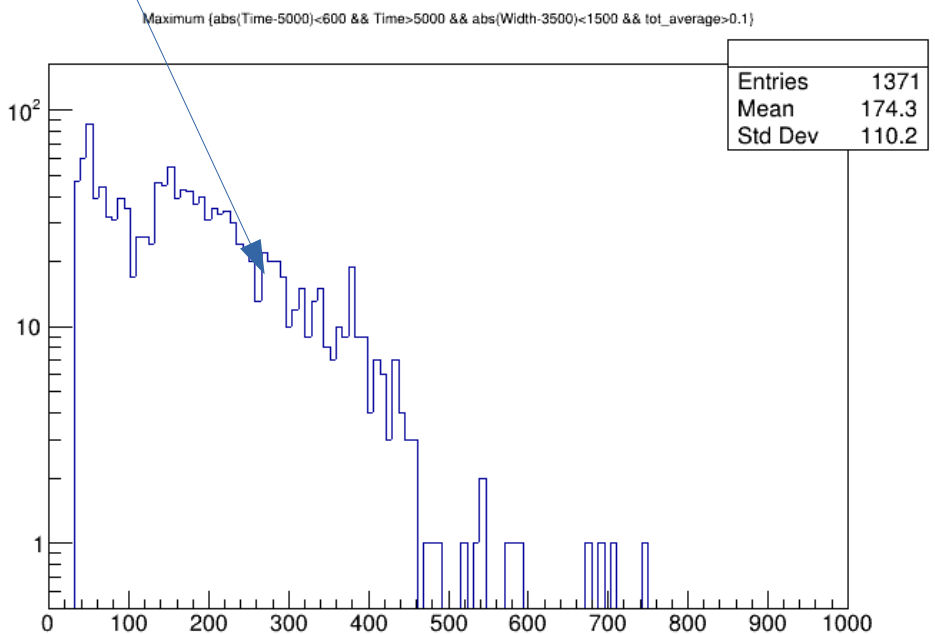
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 500

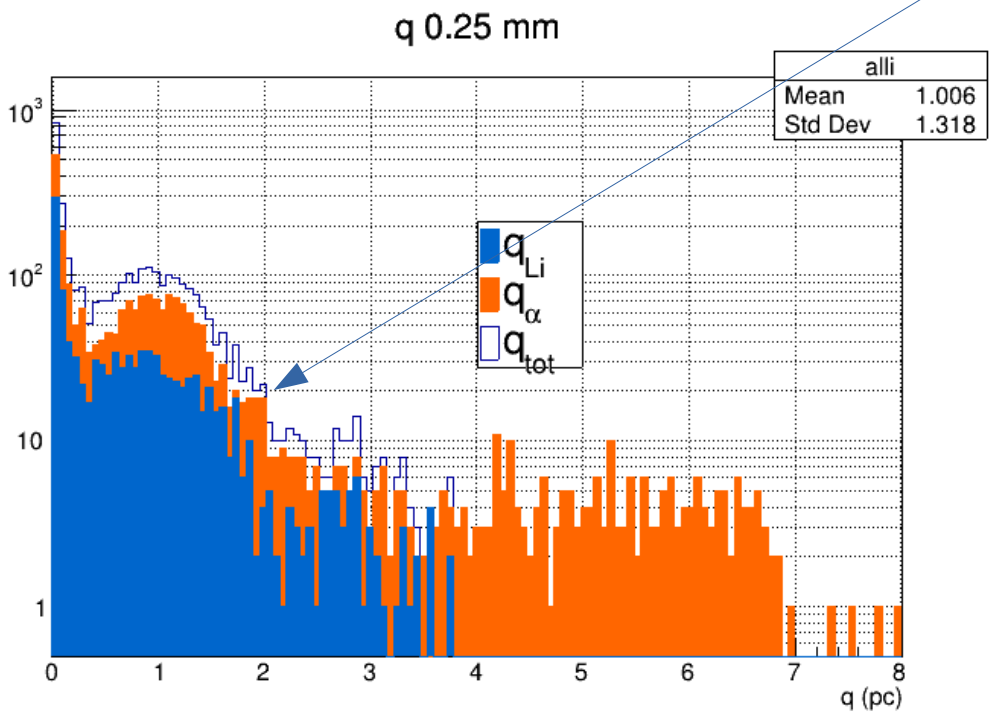


Conto a spanne: 2pC~250mV → 50mV di thr sono 0.4 pC → vediamo bene il picco a 1 pC ???

CATODO BORATO GROOVED - CREMAT

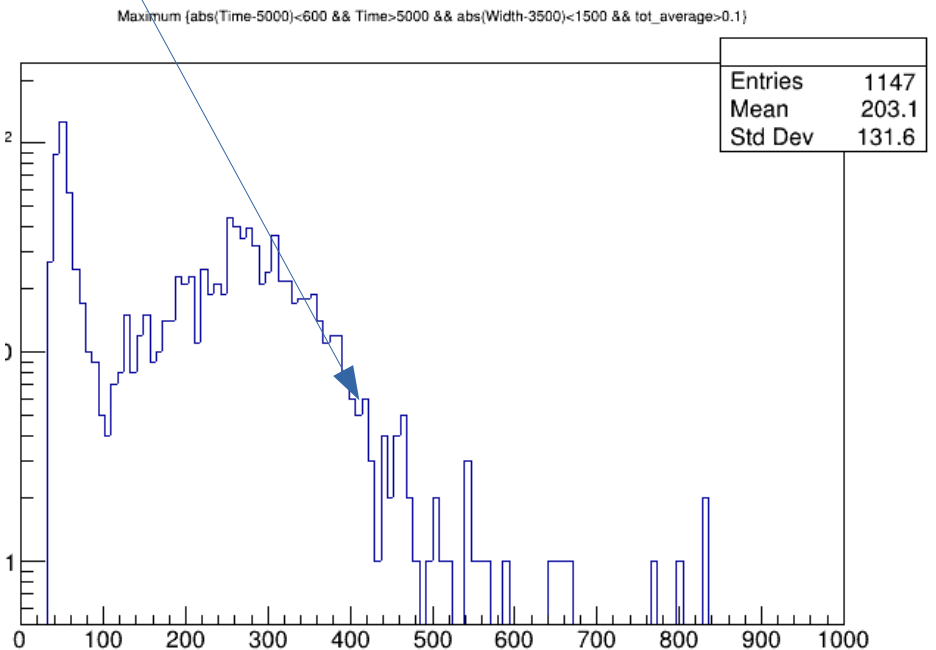
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 1000

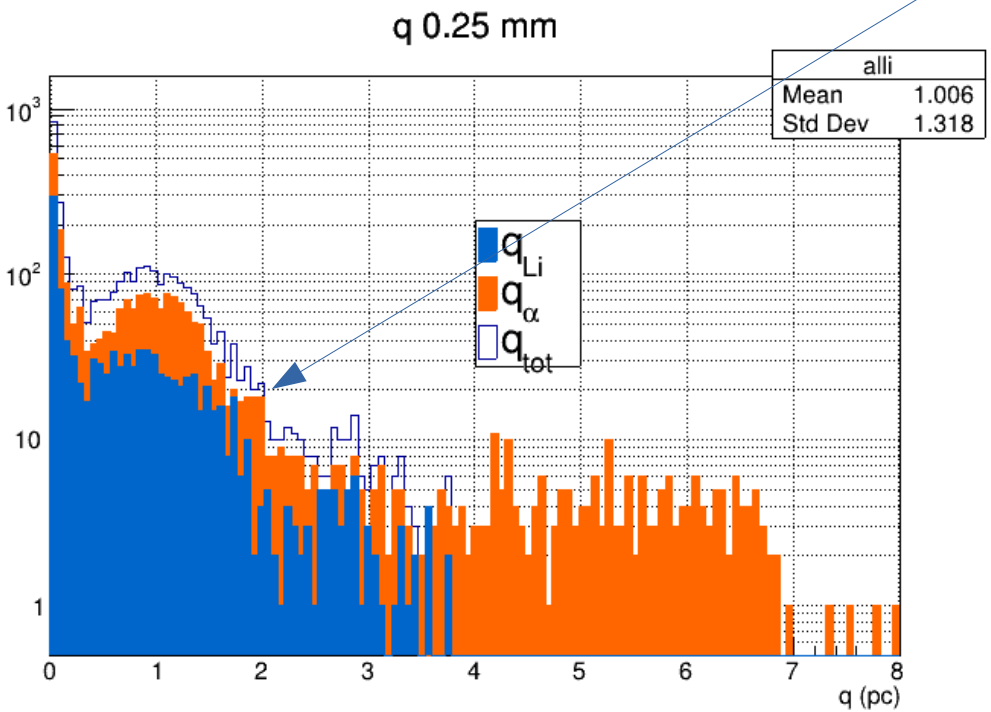


Conto a spanne: 2pC~450mV → 50mV di thr sono 0.2 pC → vediamo bene il picco sotto 1 pC ???

CATODO BORATO GROOVED - CAEN

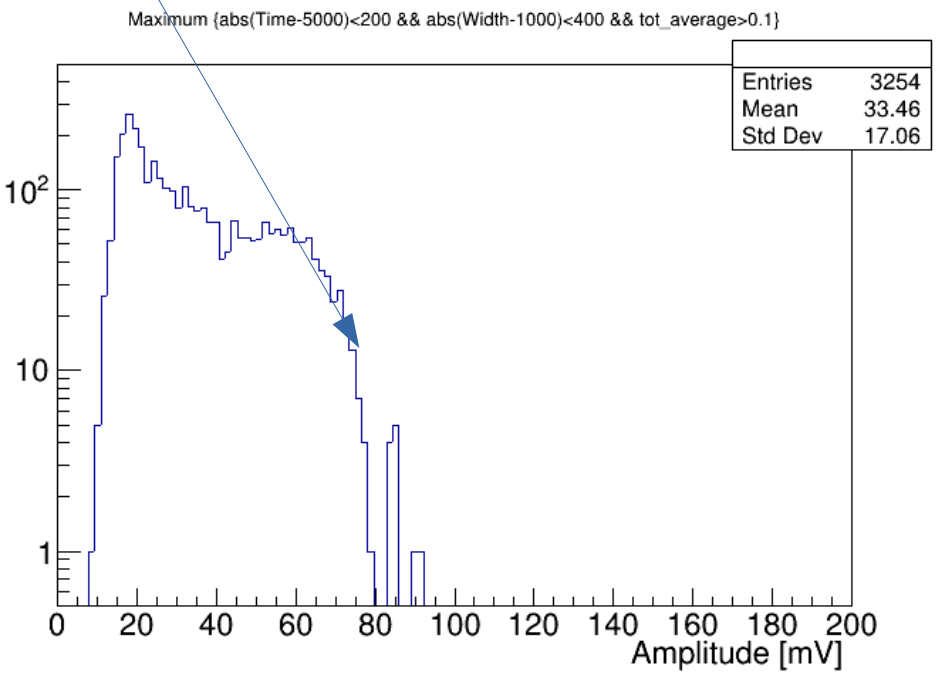
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 500

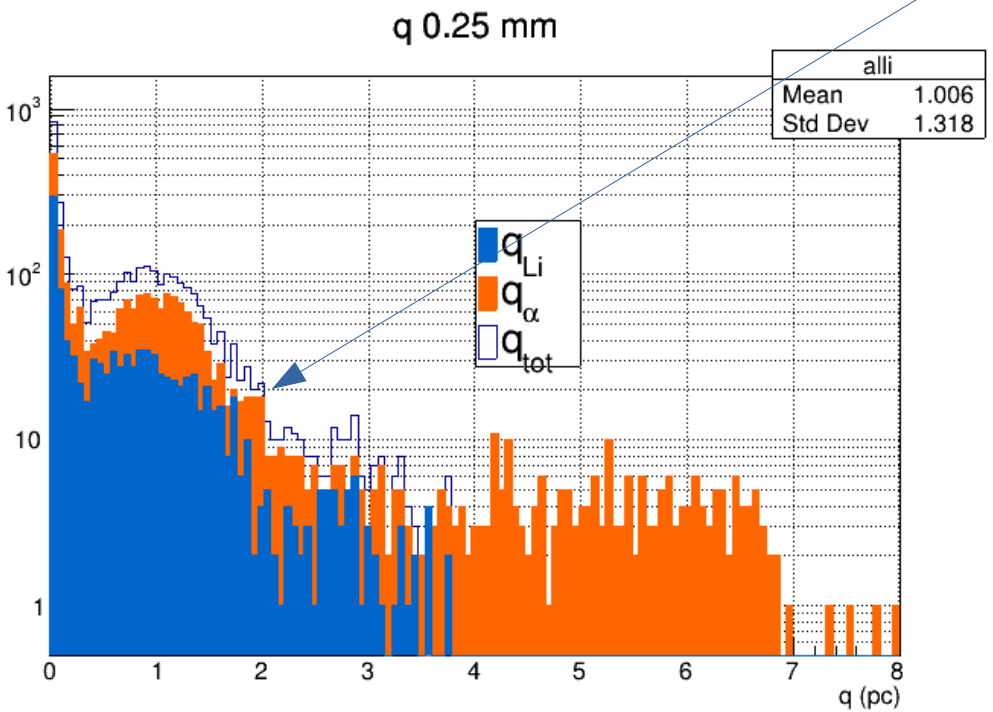


Conto a spanne: 1pC~40mV → 5mV di thr sono 0.12 pC → vediamo la fine il picco a bassa carica

CATODO BORATO GROOVED - CAEN

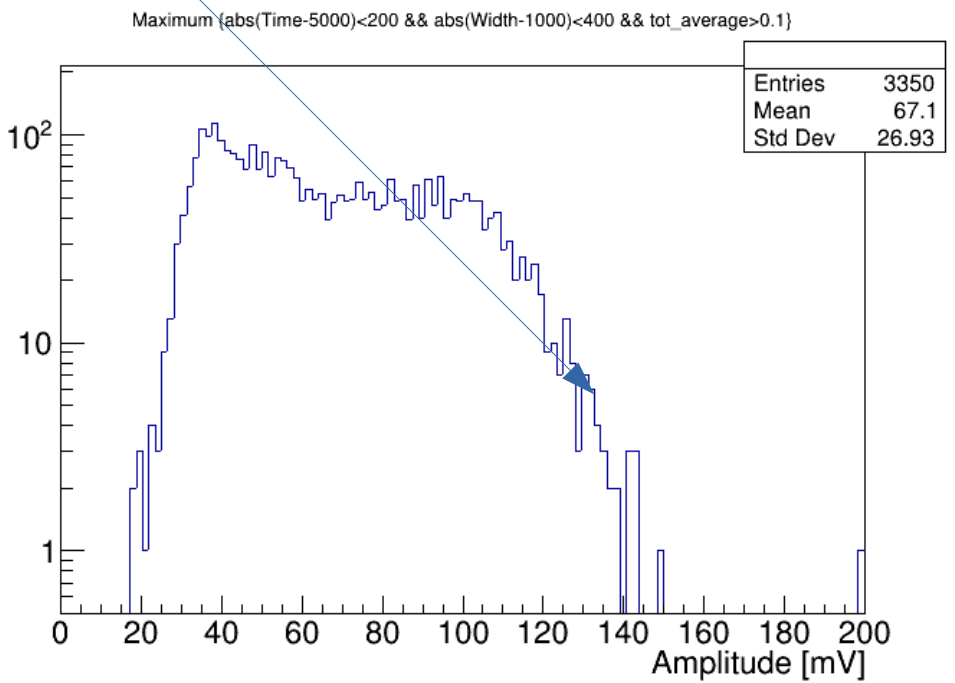
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 1000

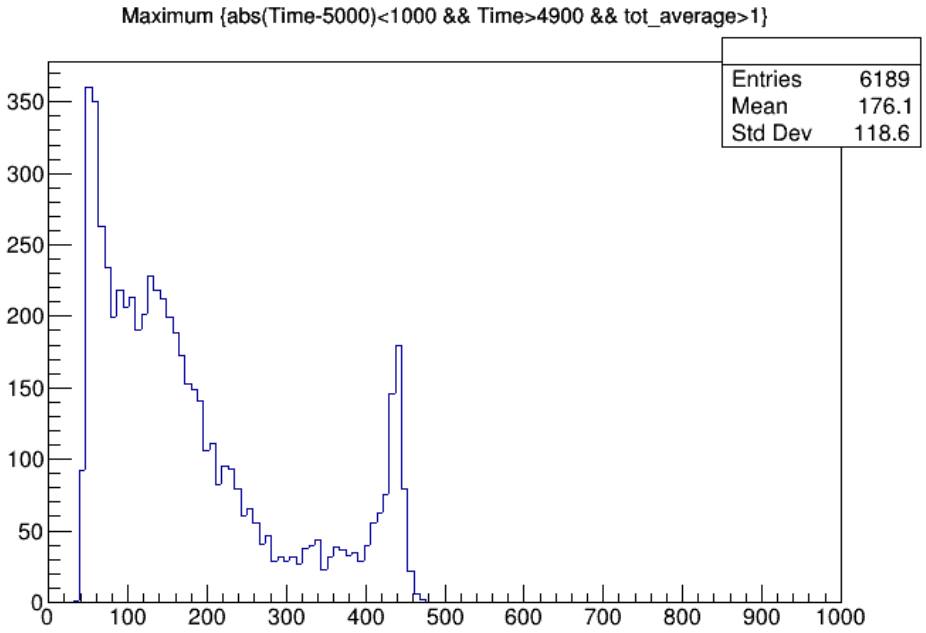


Conto a spanne: 1pC~70mV → 5mV di thr sono 0.08 pC → vediamo la fine il picco a bassa carica

CATODO BORATO PLANARE da 2.5 µm – CREMAT TRIGGER SUL TOP

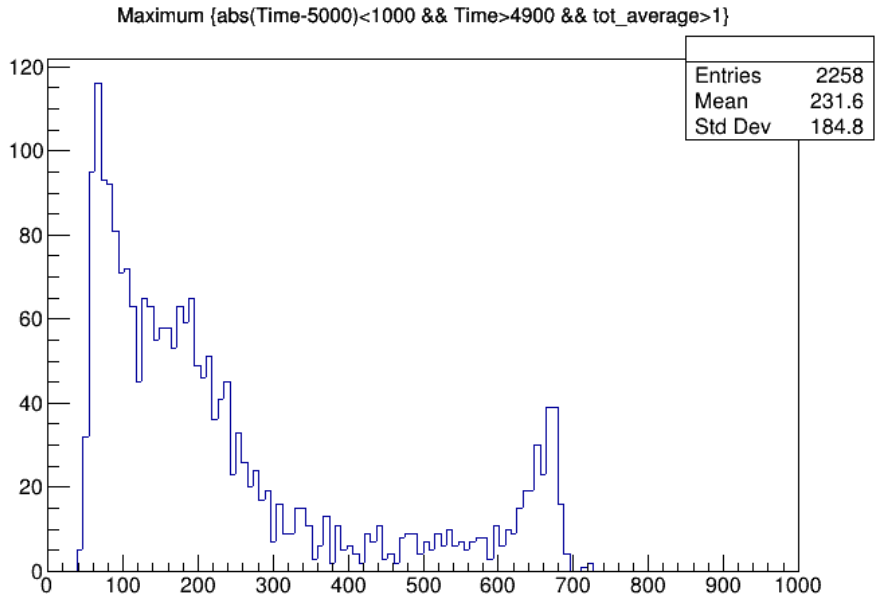
MISURA

Gain 500



MISURA

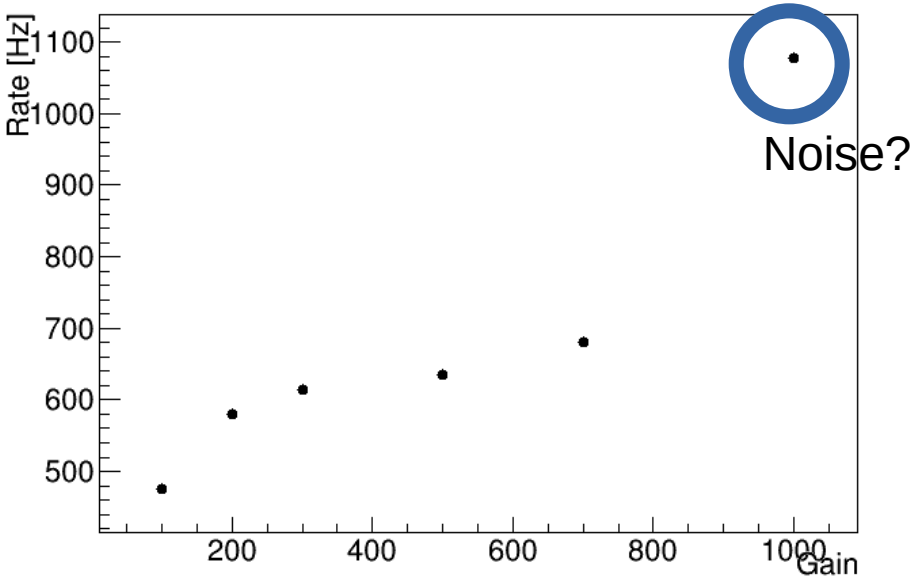
Gain 1000

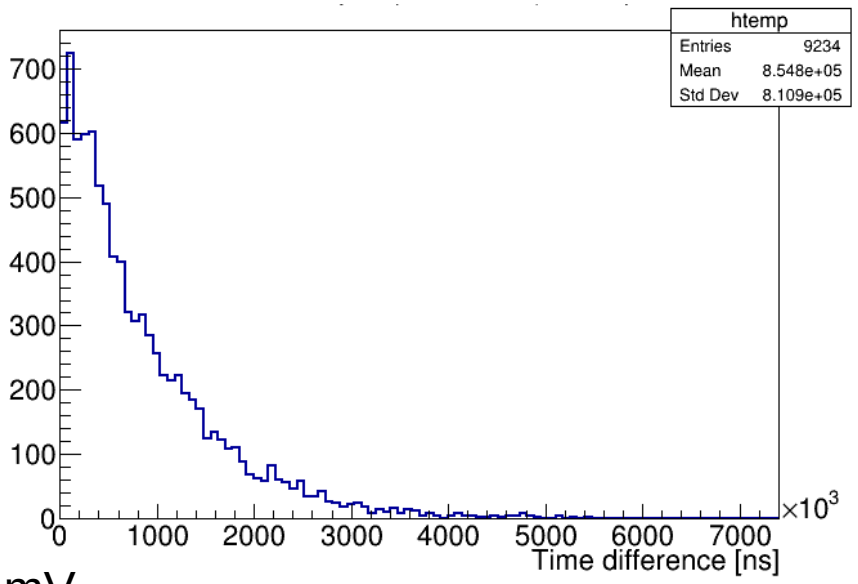


Amplitude [mV]

Misura temporale – CREMAT planare W1

Selezione sui segnati: abs(T – T0) < 1μs



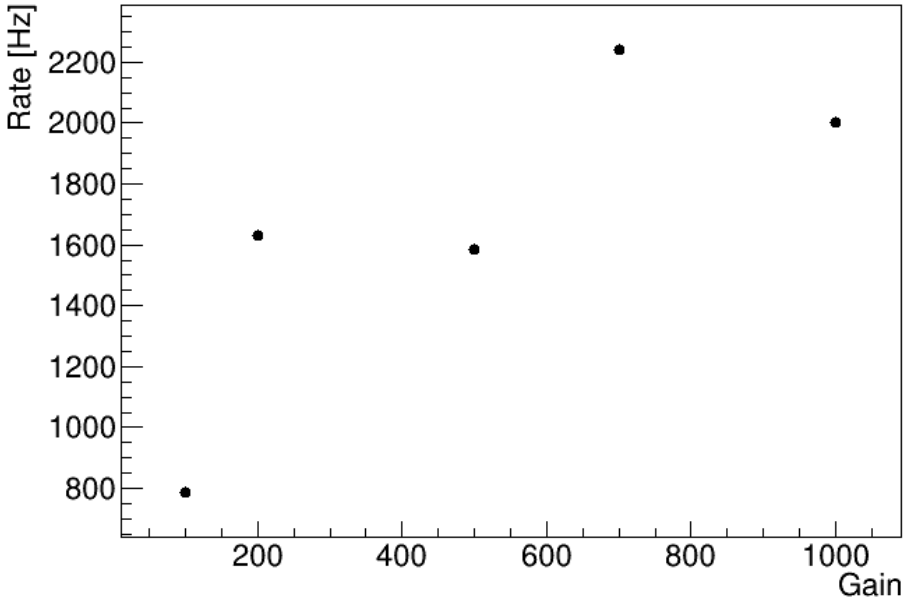


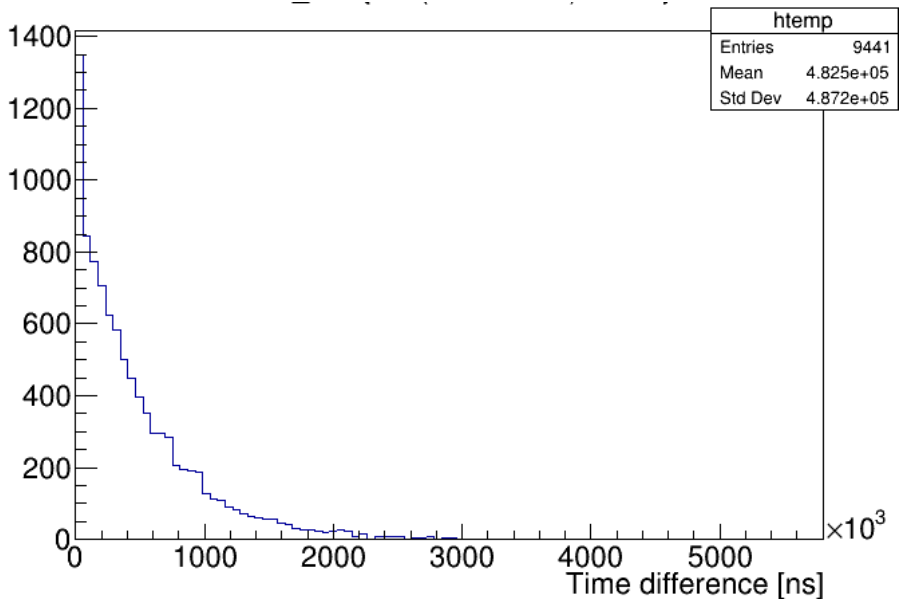
Soglia 50 mV

NB: in questa misura è stata acquisita solo mezza cameretta

Misura temporale – CREMAT grooved W6

LETTA TUTTA LA CAMERA





Soglia 50 mV

Misura temporale – CAEN

LETTA TUTTA LA CAMERA

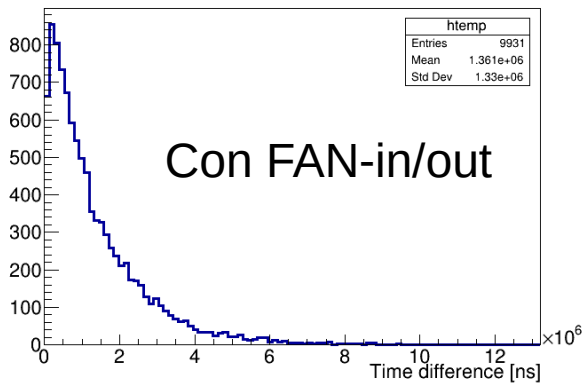
planare W1

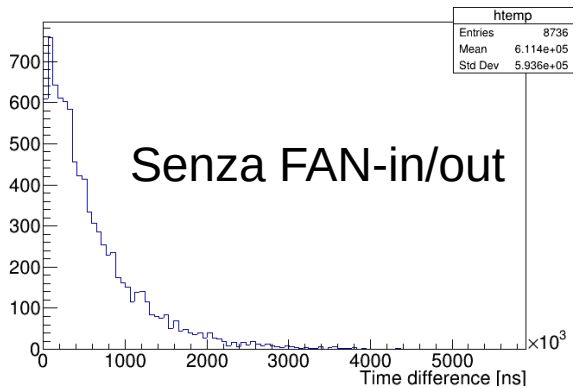
Con fan-in fan-out
Gain 500 – thr 9mV → rate 30 Hz
Gain 700 – thr 9mV → rate 240 Hz
Gain 1000 – thr 9mV → rate 460 Hz

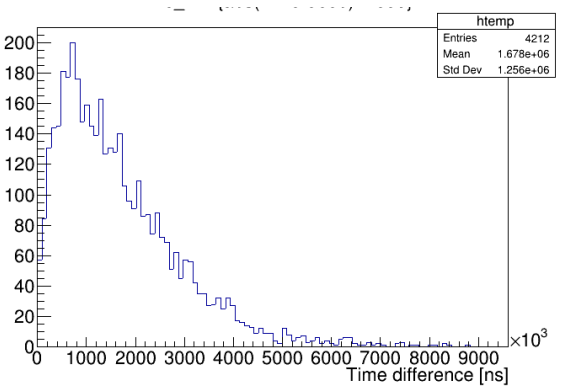
Senza fan-in fan-out
Gain 1000 – thr 25 mV → rate 1418 Hz

grooved W8

Con o senza fan-in fan-out??? penso CON
Gain 1000 – thr 40mV → rate 473 Hz
Gain 1000 – thr 30mV → rate 635 Hz
Gain 500 – thr 5mV → rate 110 Hz







Misura temporale – CREMAT sul TOP

LETTA TUTTA LA CAMERA

Grooved W6

Gain 1000 – thr 15mV → rate 10 Hz
Gain 1000 – thr 35mV → rate 1358 Hz
Gain 1000 – thr 50mV → rate 1183 Hz

Considerazioni

Abbassare le soglie non fa aumentare il rate nonostante la selezione software

Misura di rate è di:
700 x2 Hz per W1 planare CREMAT
1420 Hz per W1 planare CAEN
2240 Hz per W6 grooved CREMAT
1360 Hz per W6 grooved CREMAT letta sul TOP

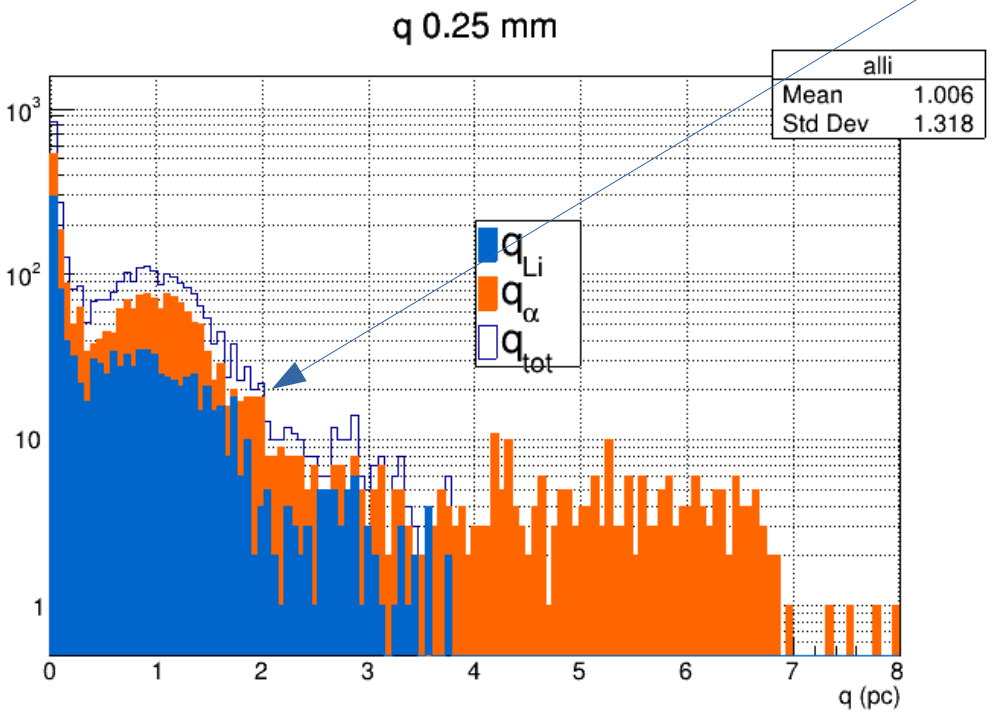
Le misure col CAEN sono state parzialmente acquisite in condizioni biassate

Backup

CATODO BORATO GROOVED - CREMAT

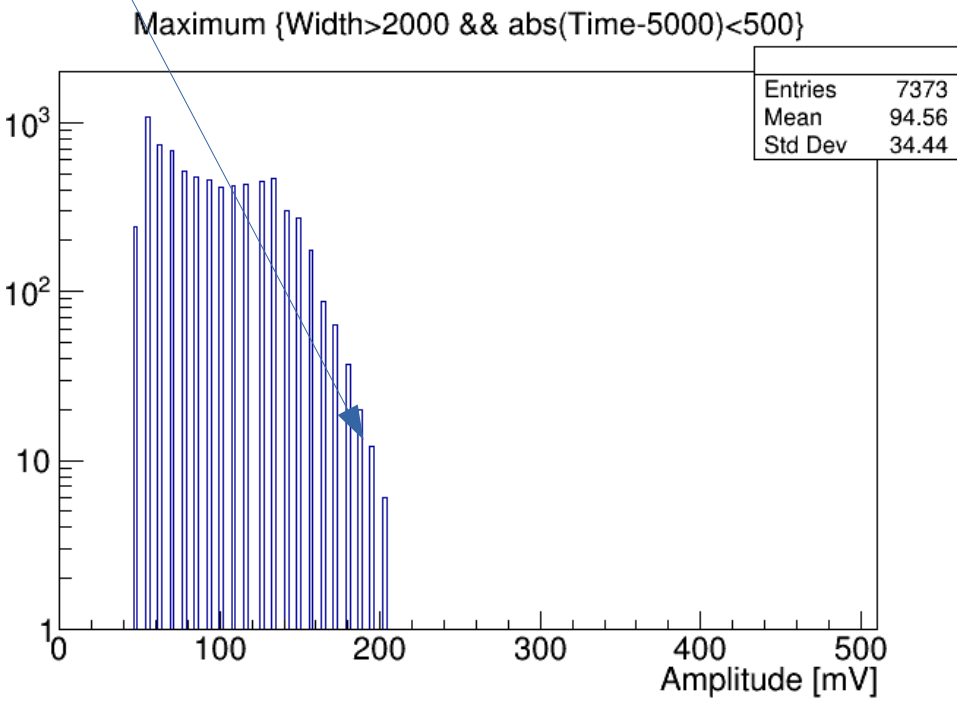
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 100

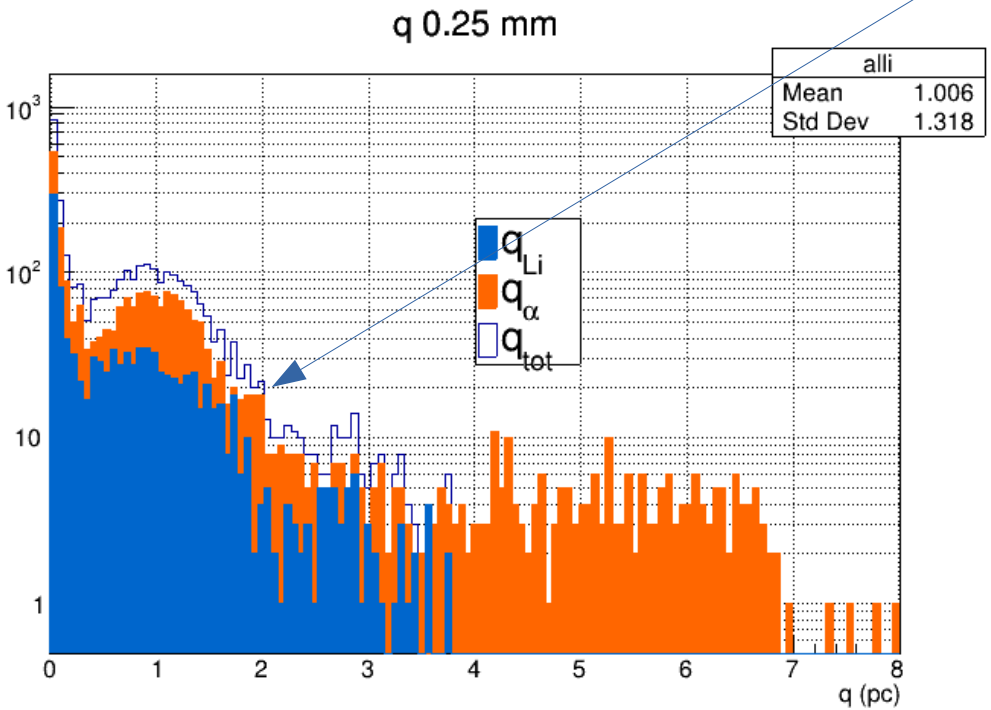


Conto a spanne: 1pC~100mV → 50mV di thr sono 0.5 pC → vediamo bene il picco a 1 pC ???

CATODO BORATO GROOVED - CREMAT

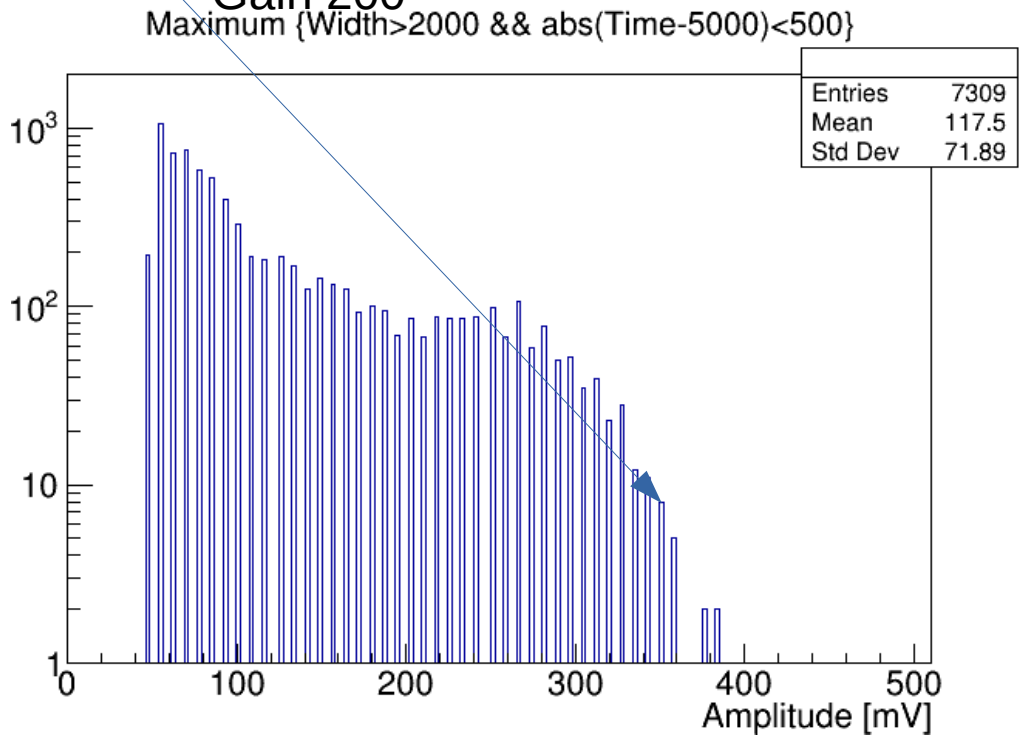
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 200

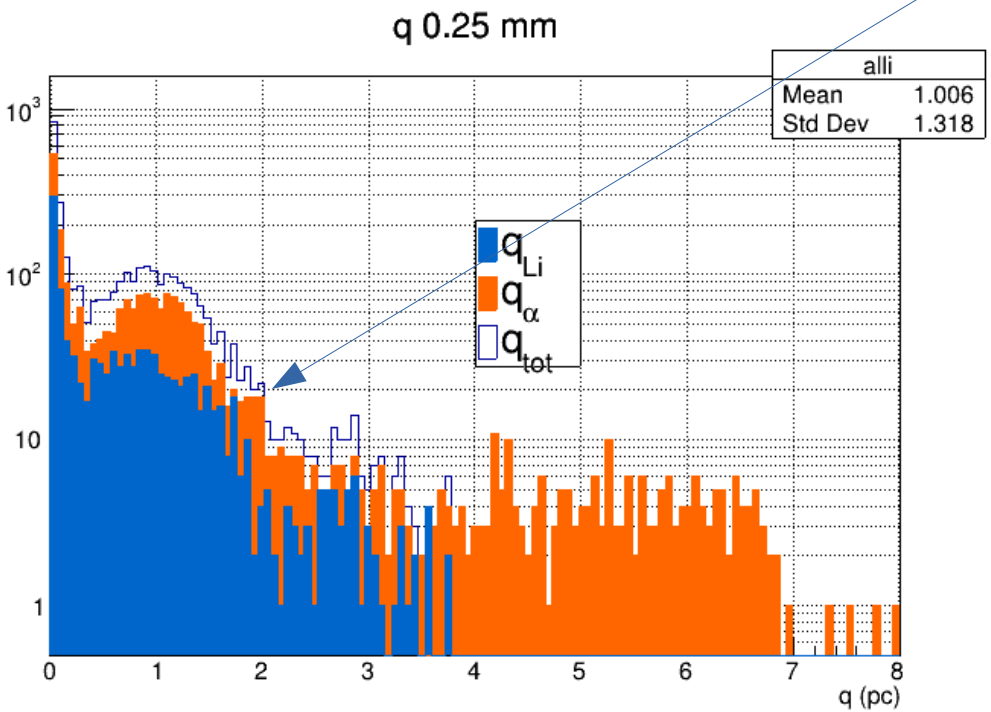


Conto a spanne: 1pC~175mV → 50mV di thr sono 0.35 pC → vediamo bene il picco a 1 pC ???

CATODO BORATO GROOVED - CREMAT

Spalla del bulk a 1 pC

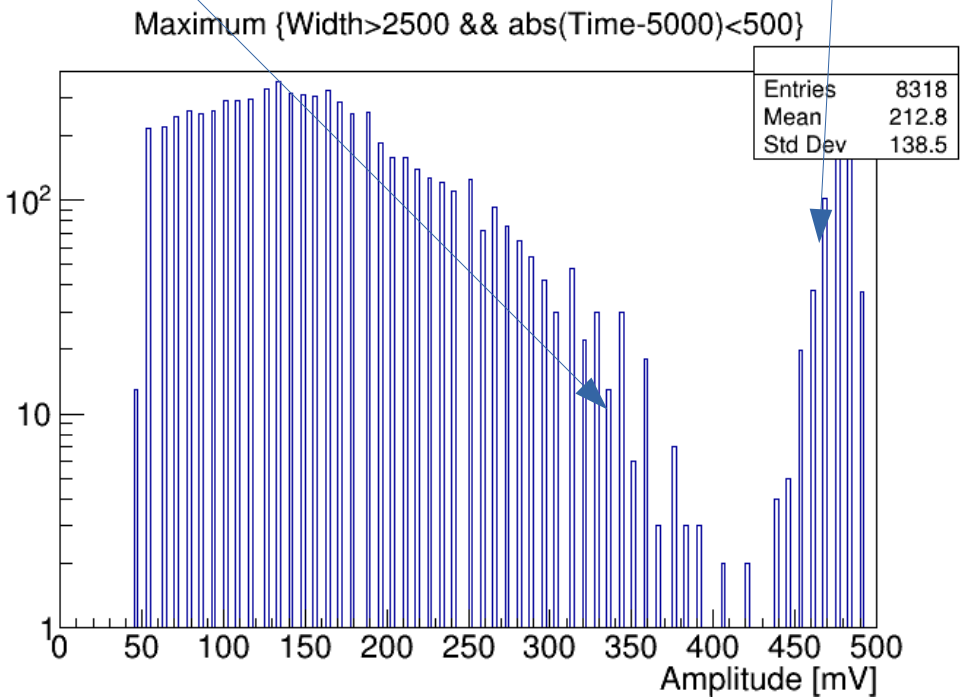
SIMULAZIONE



MISURA

Gain 500

saturazione

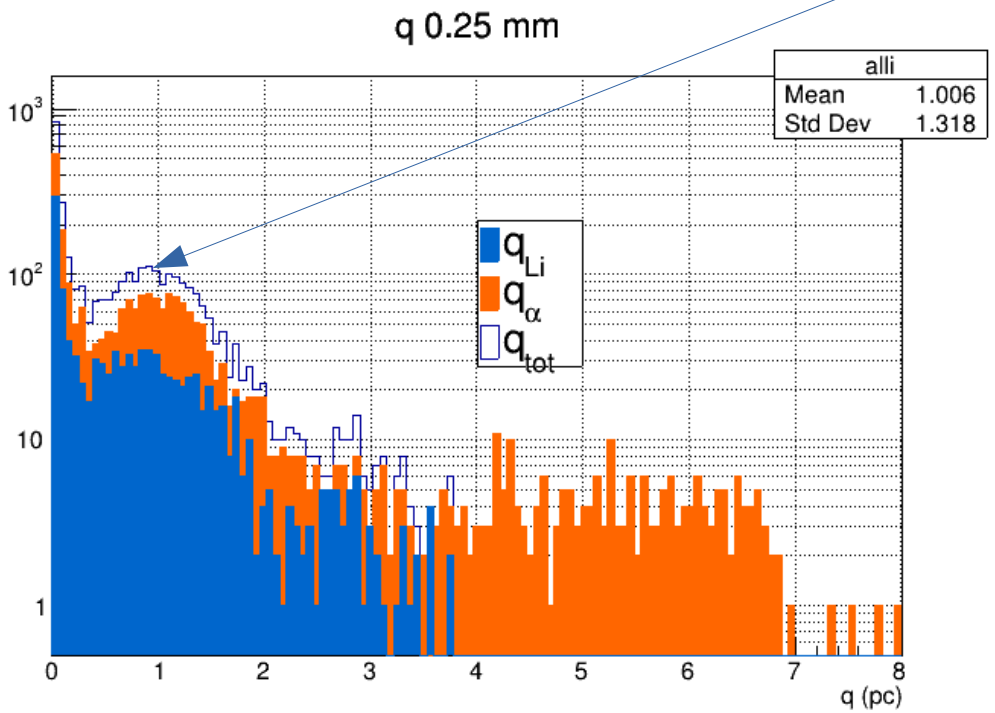


Conto a spanne: 1pC~175mV → 50mV di thr sono 0.28 pC → non vediamo meglio il picco a bassa carica

CATODO BORATO GROOVED - CREMAT

Picco del bulk a 1 pC

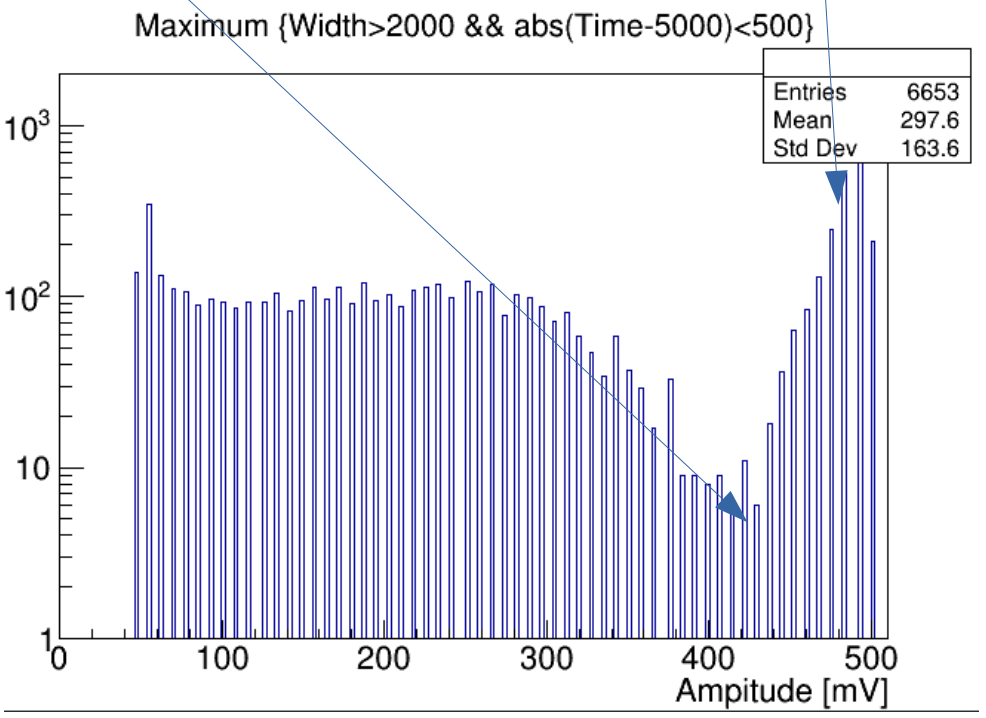
SIMULAZIONE



MISURA

Gain 1000

saturazione

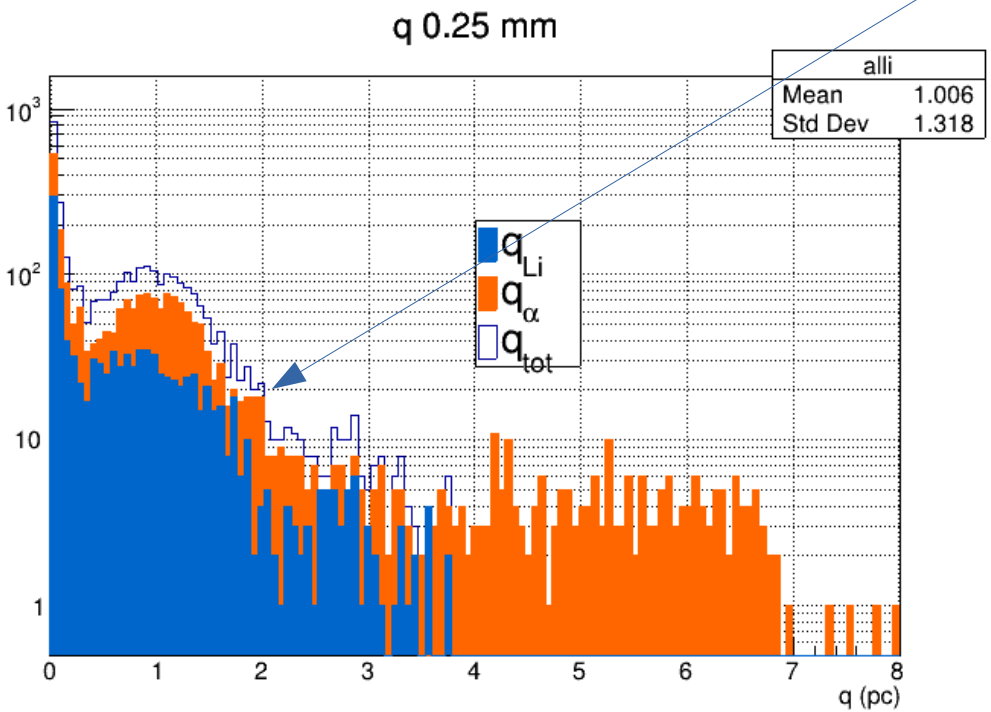


Conto a spanne: 1pC~220mV → 50mV di thr sono 0.25 pC → non vediamo meglio il picco a bassa carica

CATODO BORATO GROOVED - CAEN

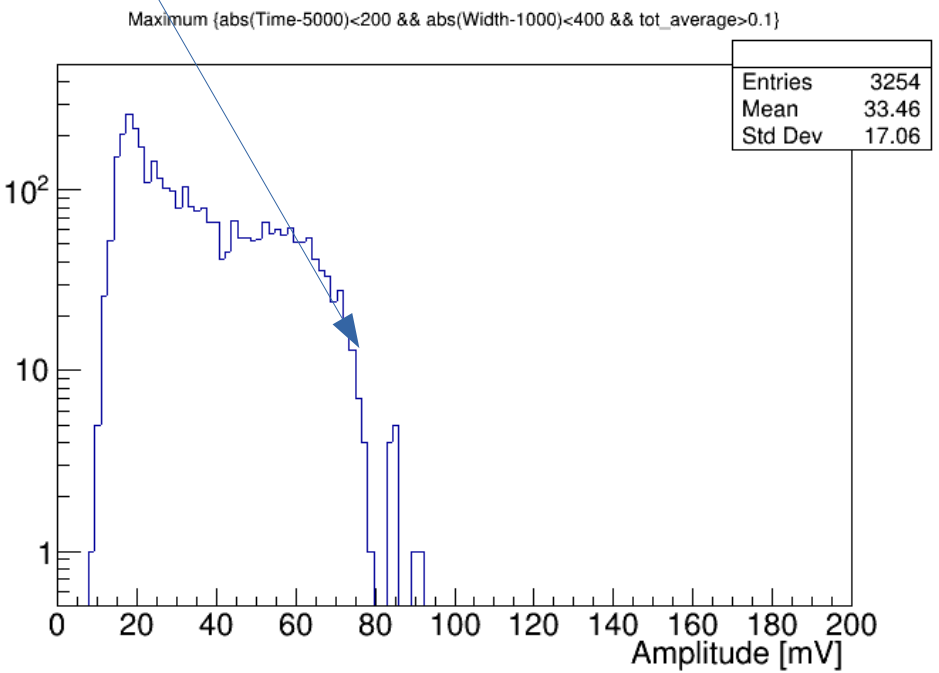
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 500

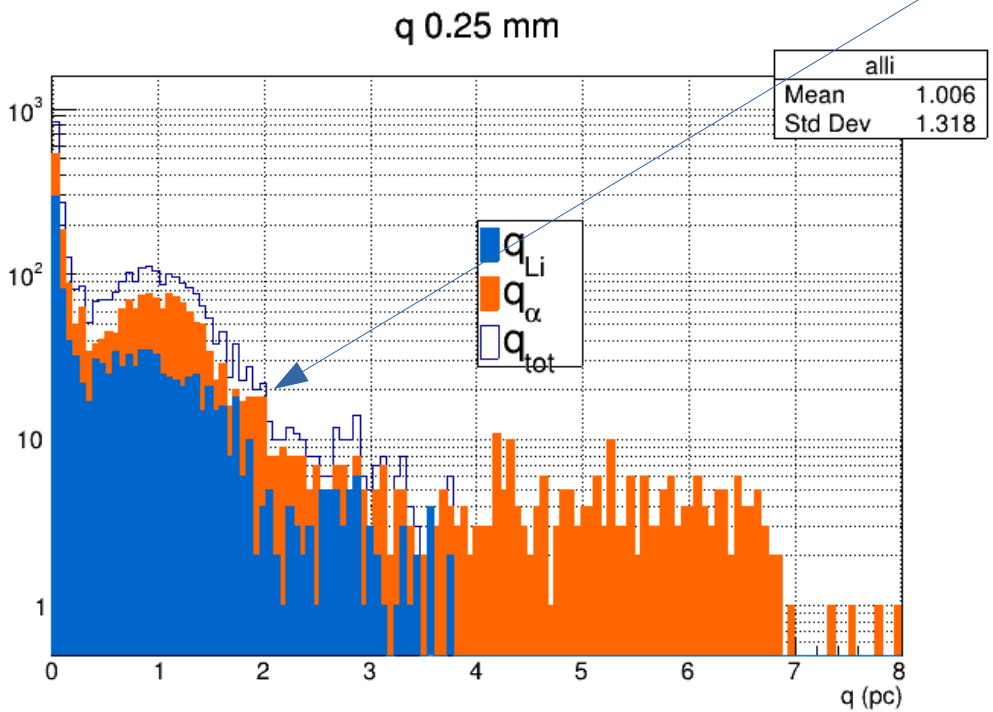


Conto a spanne: 1pC~40mV → 5mV di thr sono 0.12 pC → vediamo la fine il picco a bassa carica

CATODO BORATO GROOVED - CAEN

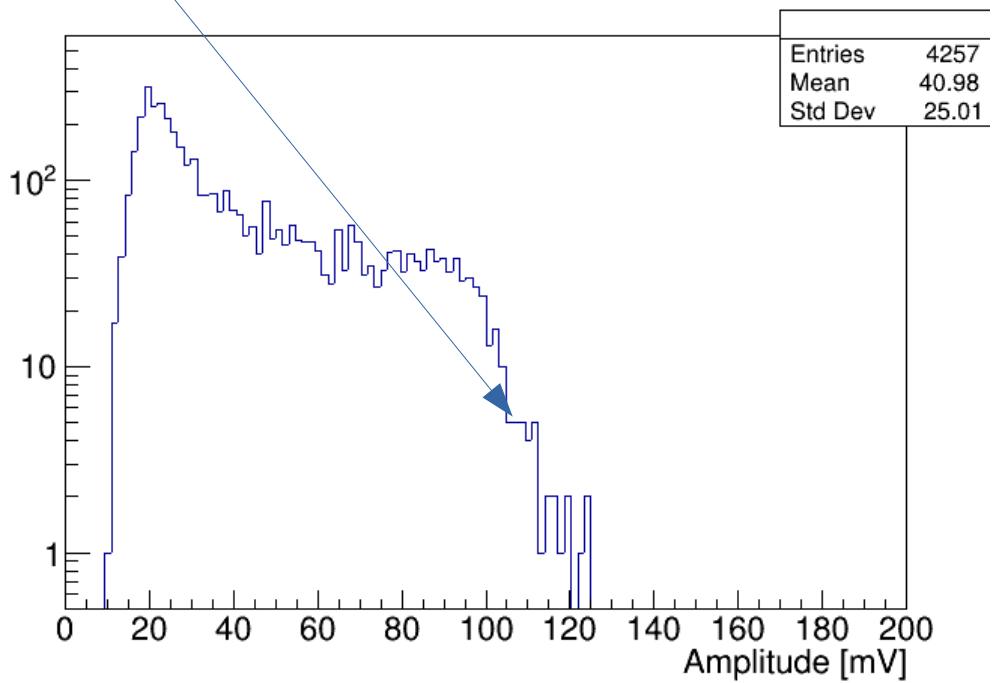
Spalla del bulk a 1 pC

SIMULAZIONE



MISURA

Gain 700

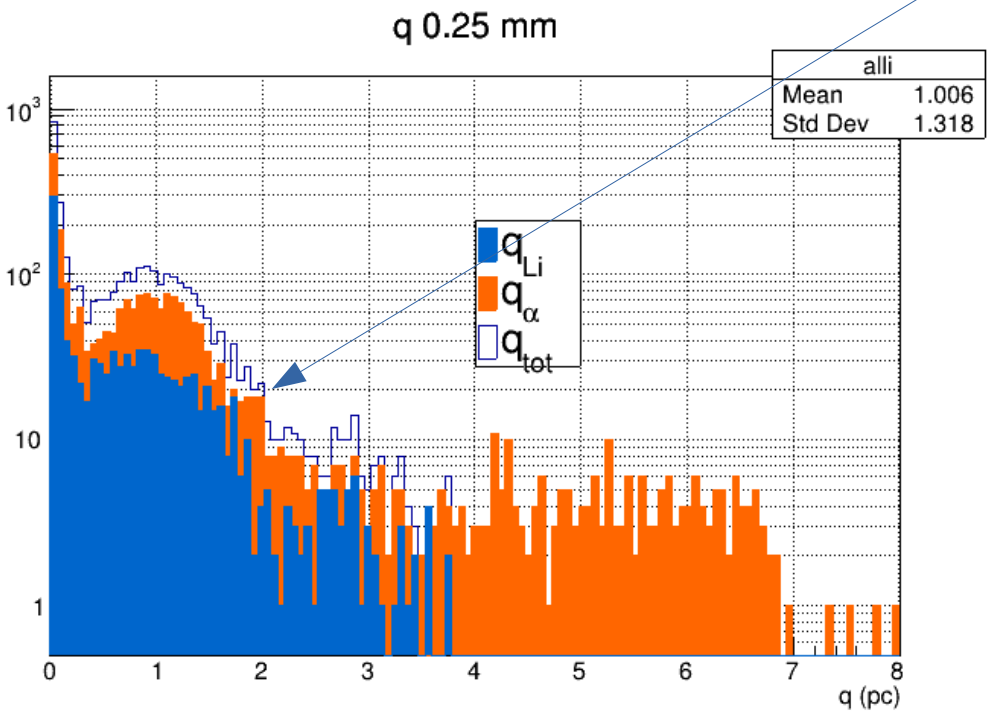


Conto a spanne: 1pC~55mV → 5mV di thr sono 0.1 pC → vediamo la fine il picco a bassa carica

CATODO BORATO GROOVED - CAEN

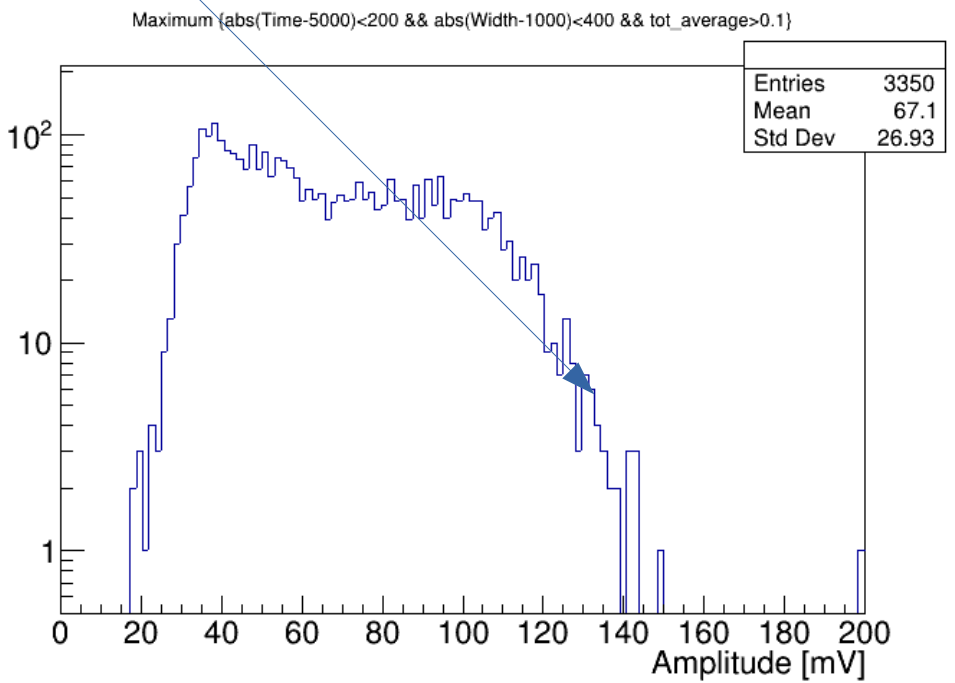
Spalla del bulk a 1 pC

SIMULAZIONE

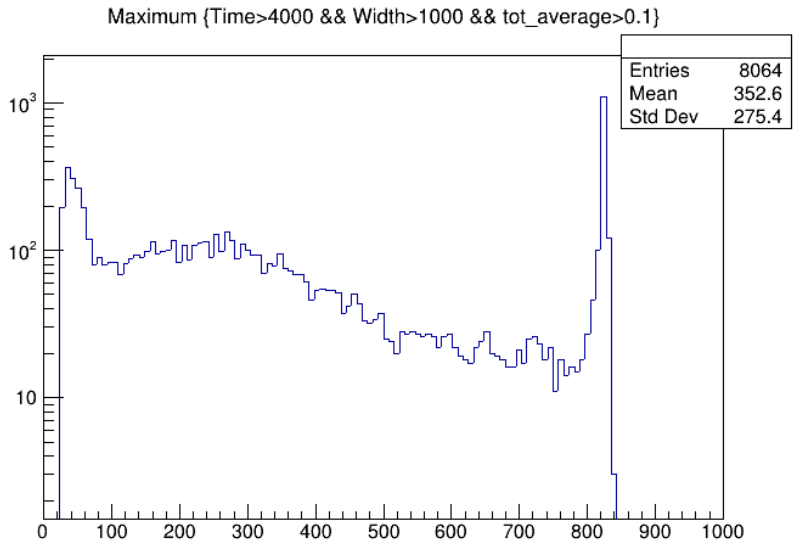


MISURA

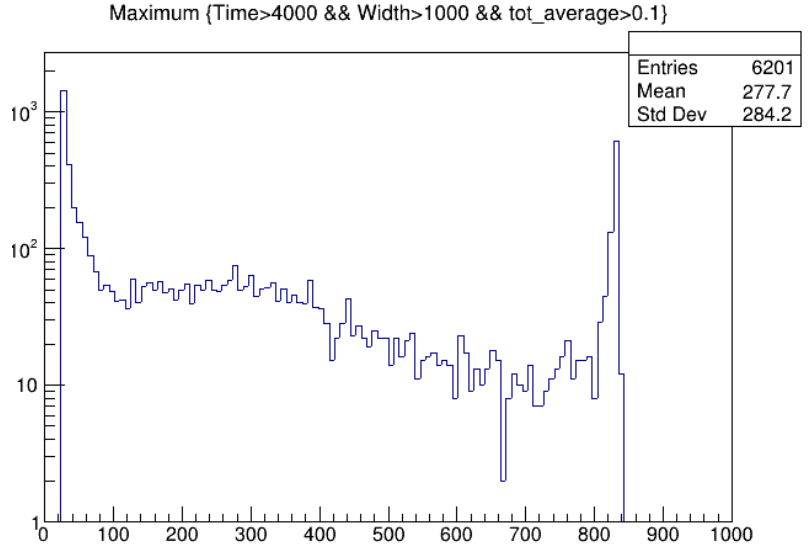
Gain 1000



Conto a spanne: 1pC~70mV → 5mV di thr sono 0.08 pC → vediamo la fine il picco a bassa carica

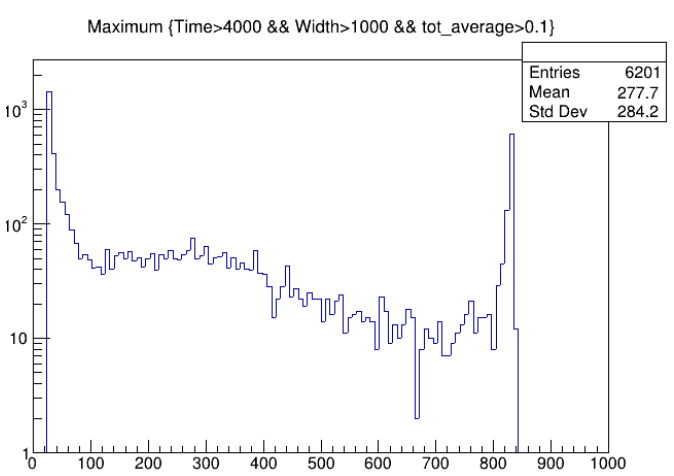


Trigger HV side

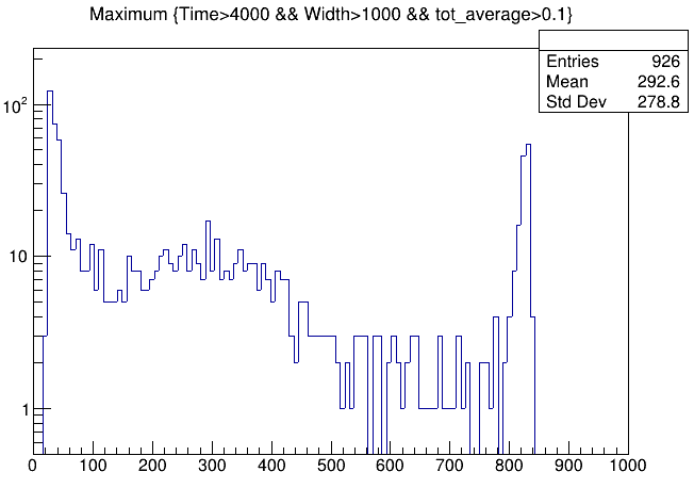


Trigger NO HV side

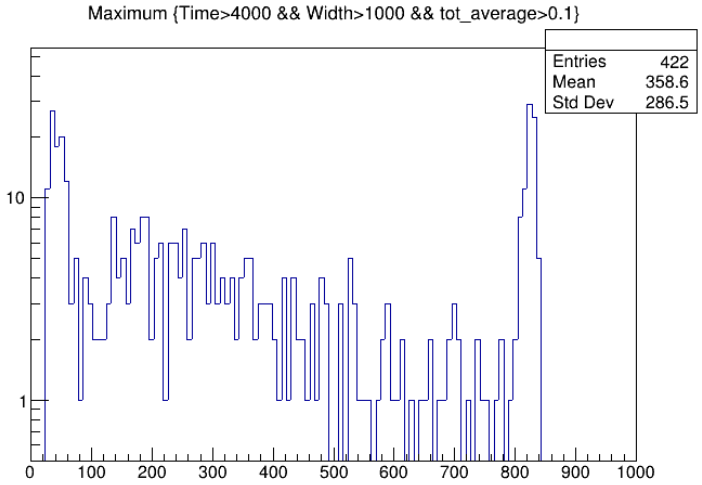
Trigger NO HV side



Thr 25 mV



Thr 20 mV



Thr 15 mV