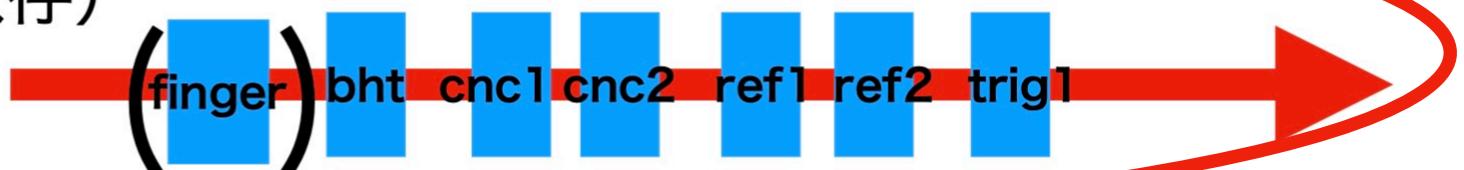


ELPH meeting 231121

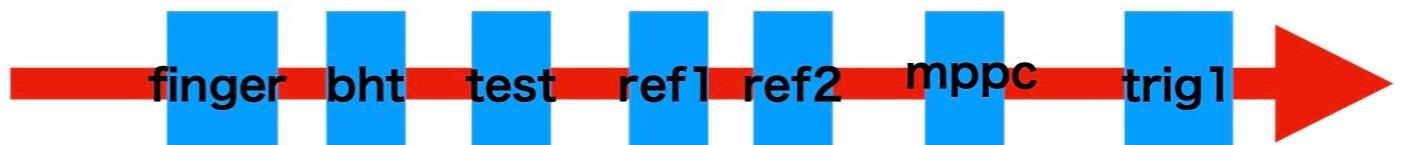
Kimura

10/19-20ビームテスト概要

1. CNC(2.6m) 時間分解能 (位置依存)



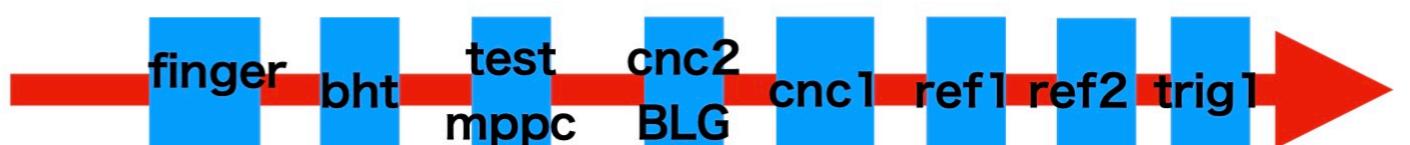
2. CNC(1.5m)(called "test") 時間分解能 (ライトガイドの長さ依存)



3. CDH(0.8m) 時間分解能 (PMT vs MPPC)

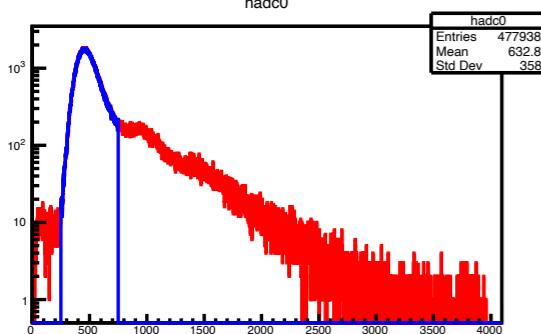


4. test 時間分解能 (MPPC ver.) & CNC (Black LG) (反射波?)

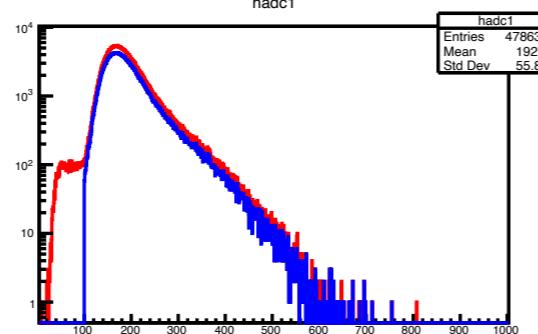


条件 1 ; trig0のmip要求かつtrig1のノイズ以上 (対生成を抑制)

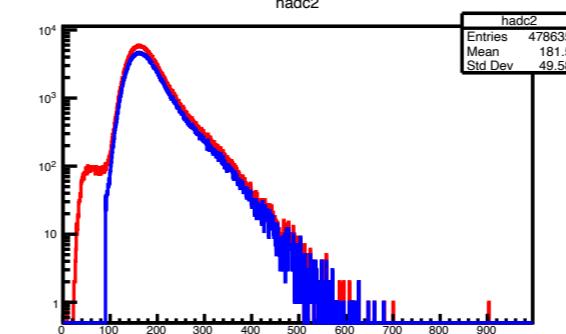
Trig 0 (最下流)



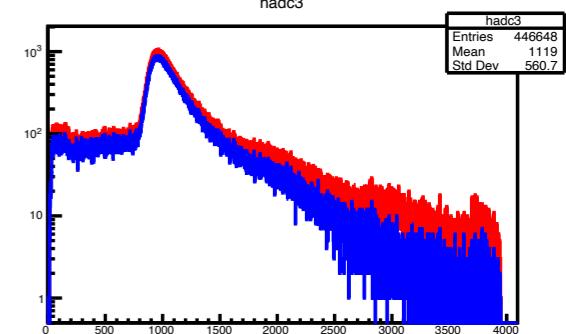
trig1L



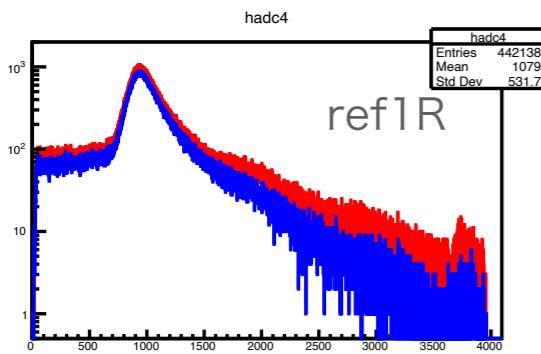
trig1R



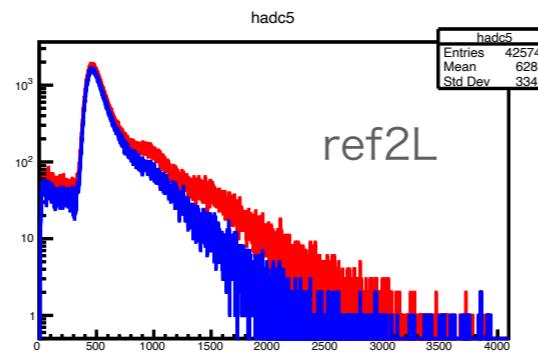
ref1L



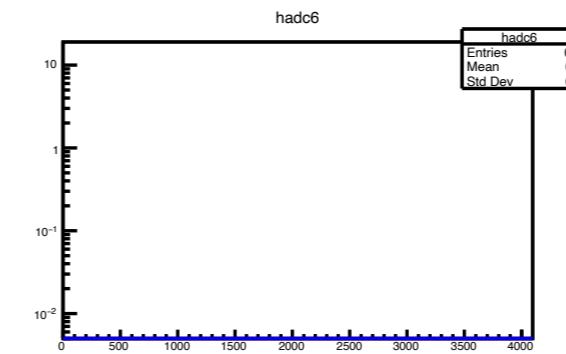
hadc4



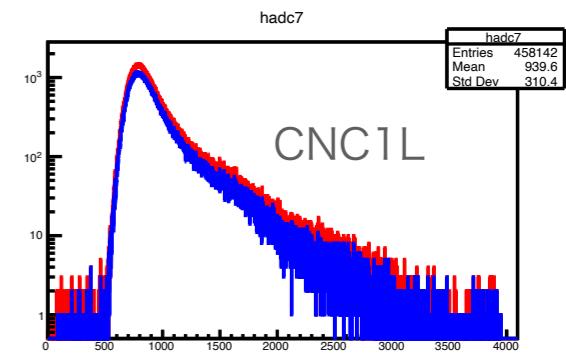
hadc5



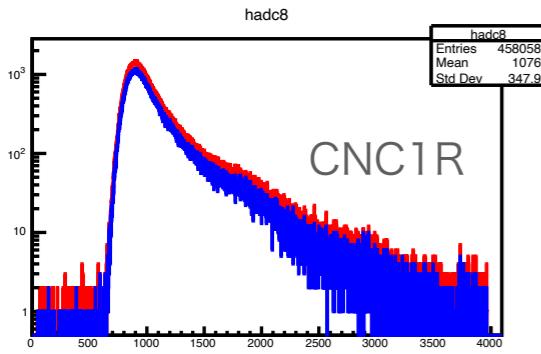
hadc6



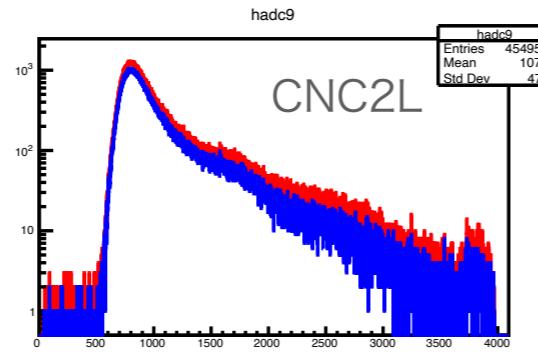
hadc7



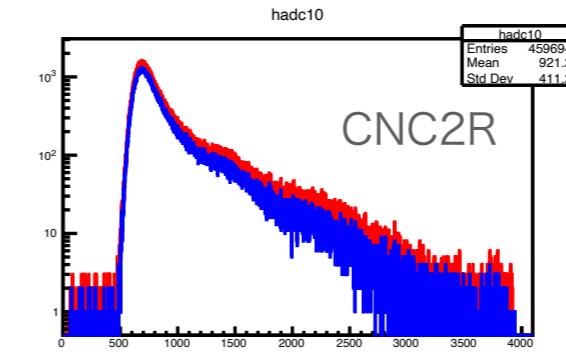
hadc8



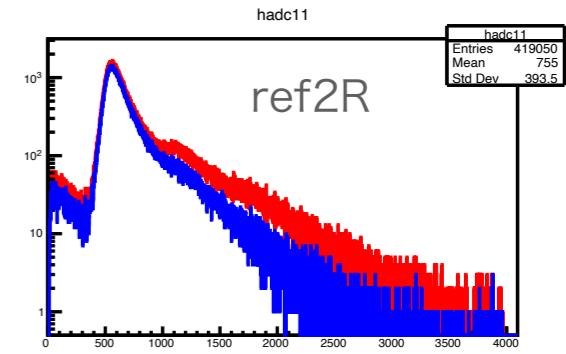
hadc9



hadc10

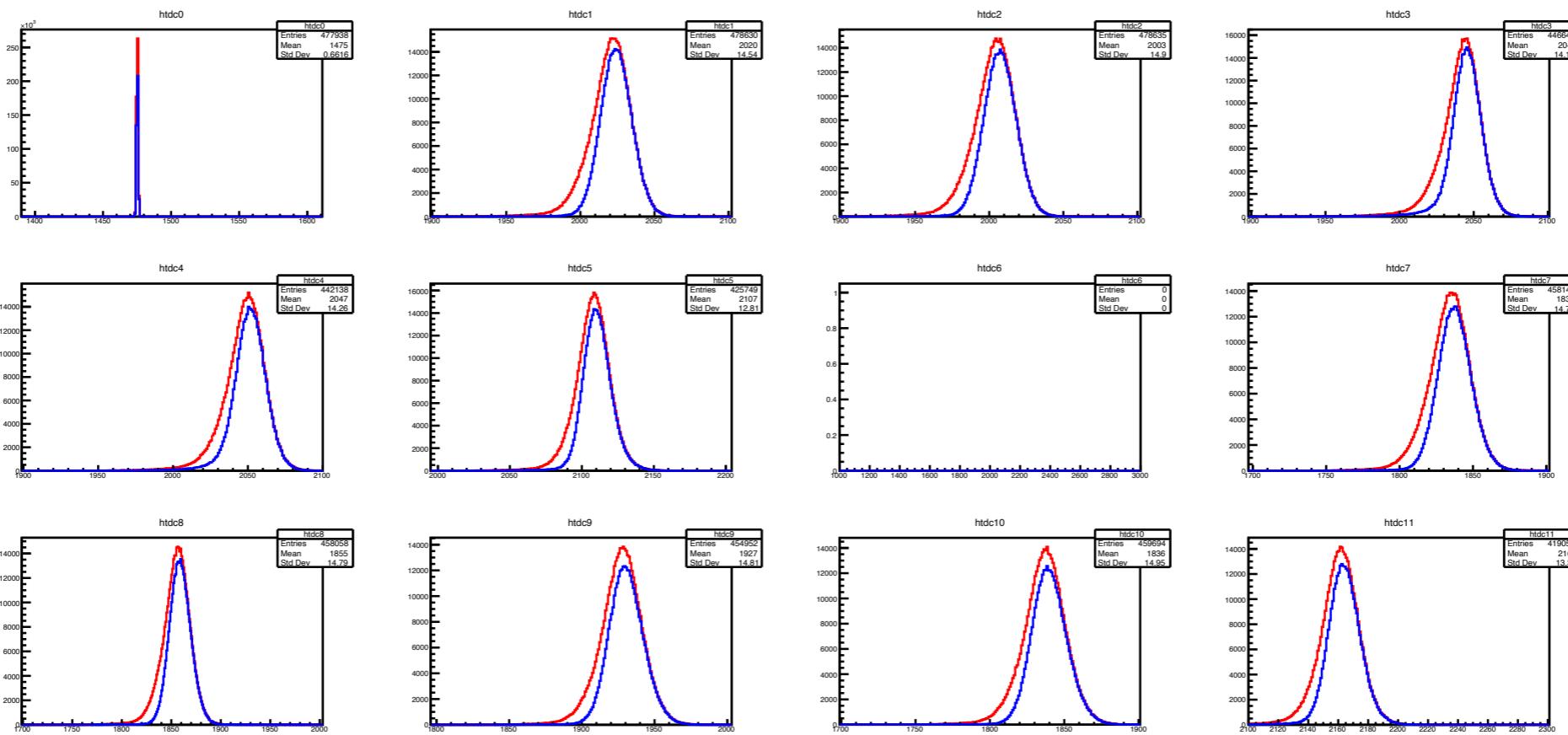


hadc11

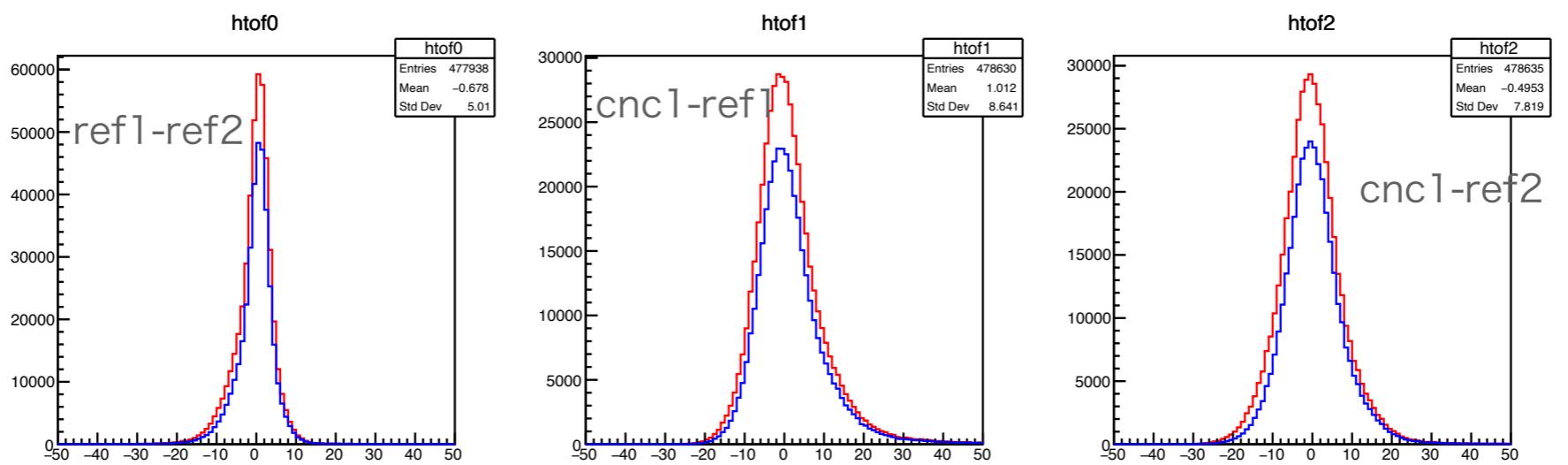


run000022

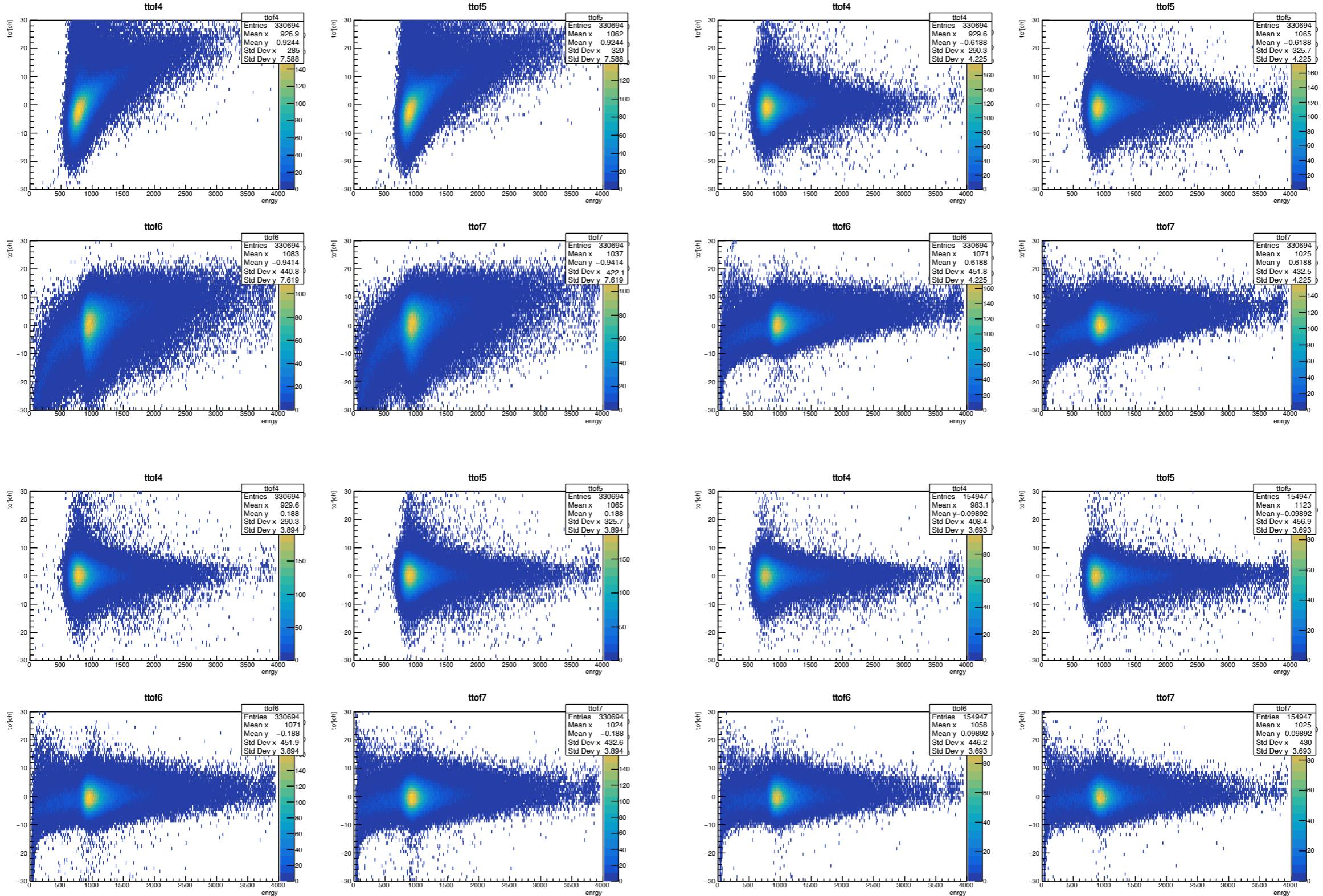
tdc



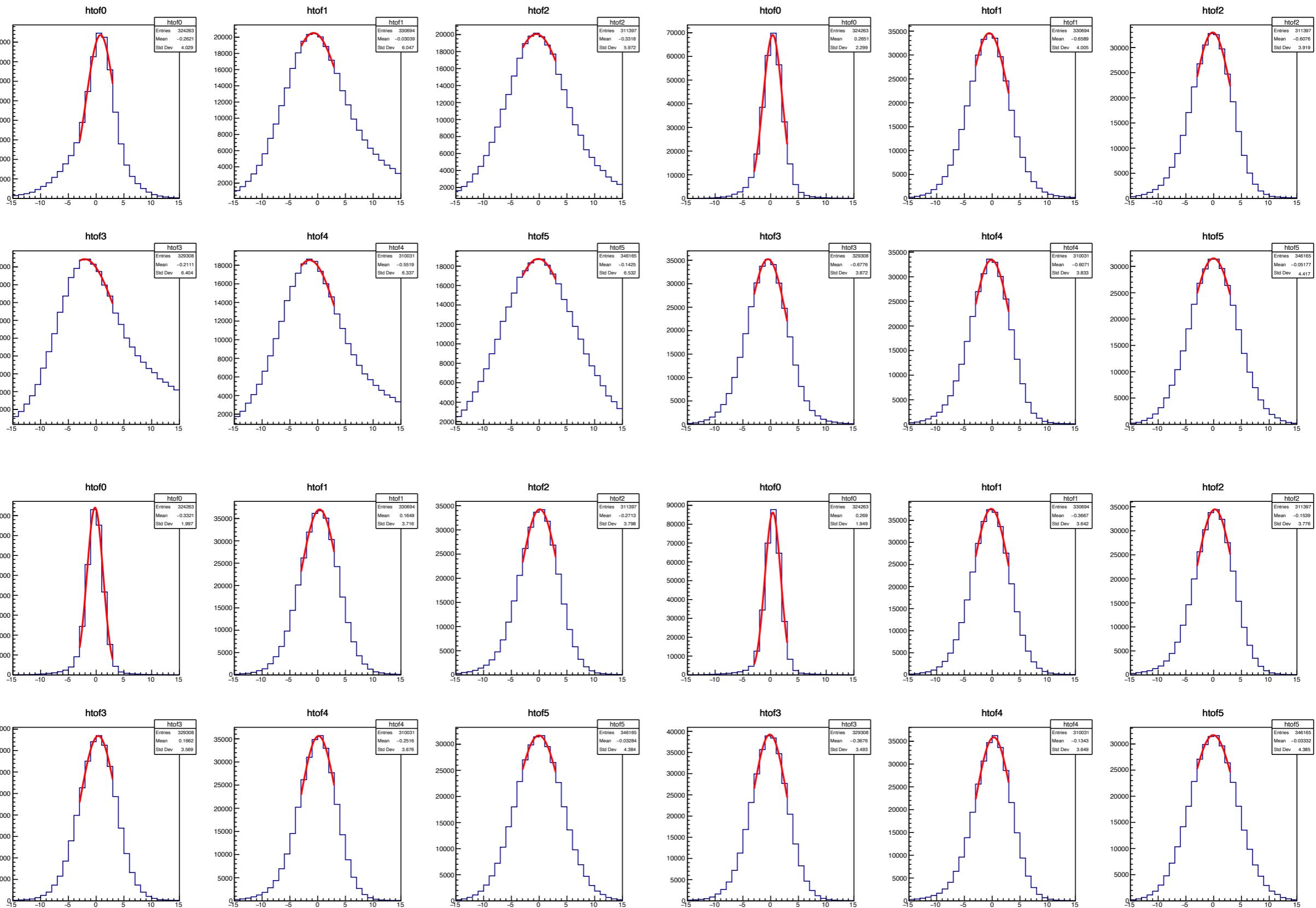
tof

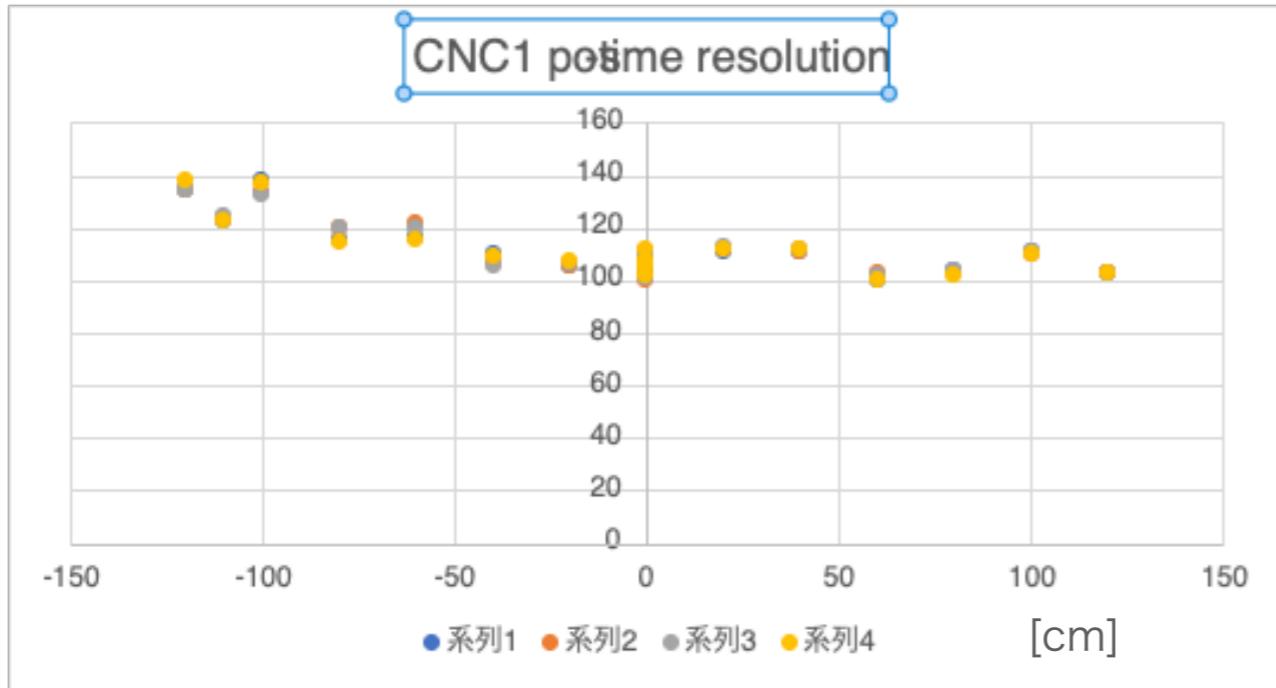


cnc1-ref1

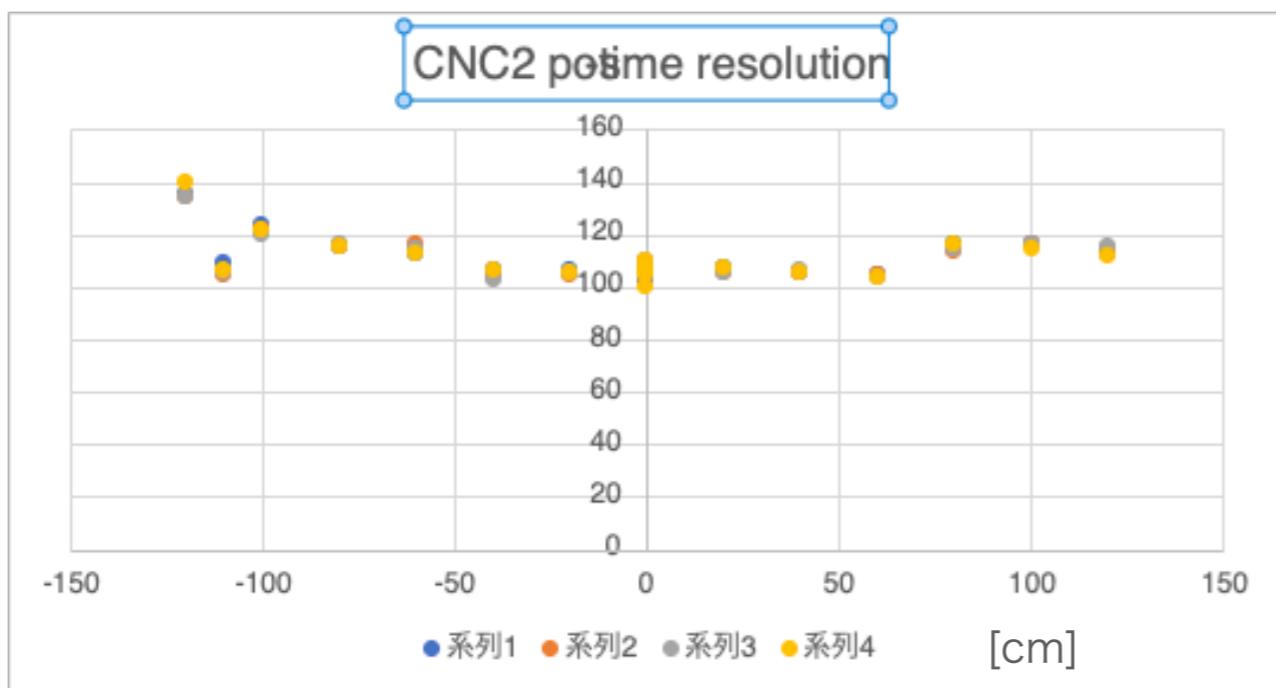


Tofの変化の様子





Run number

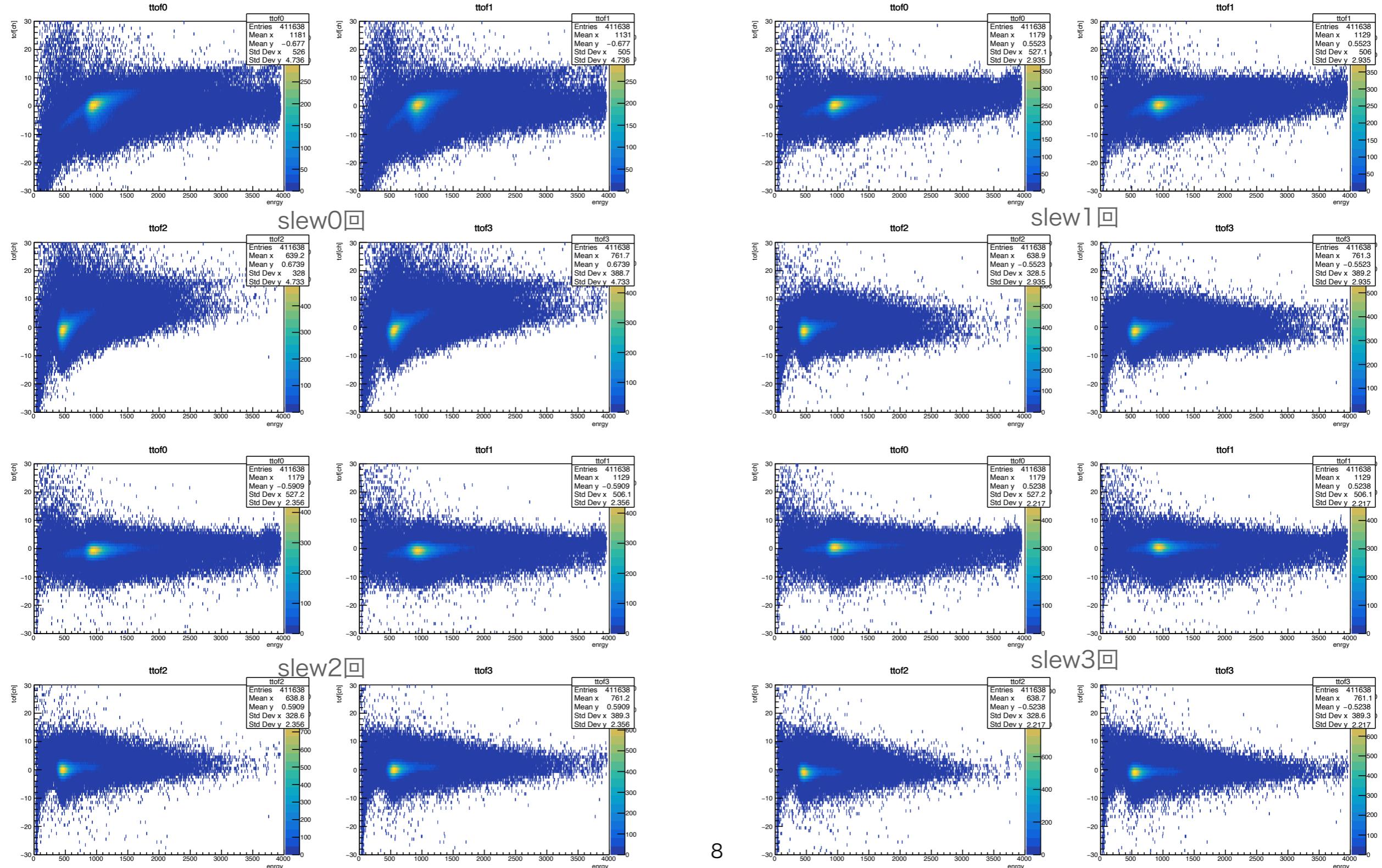


Run number

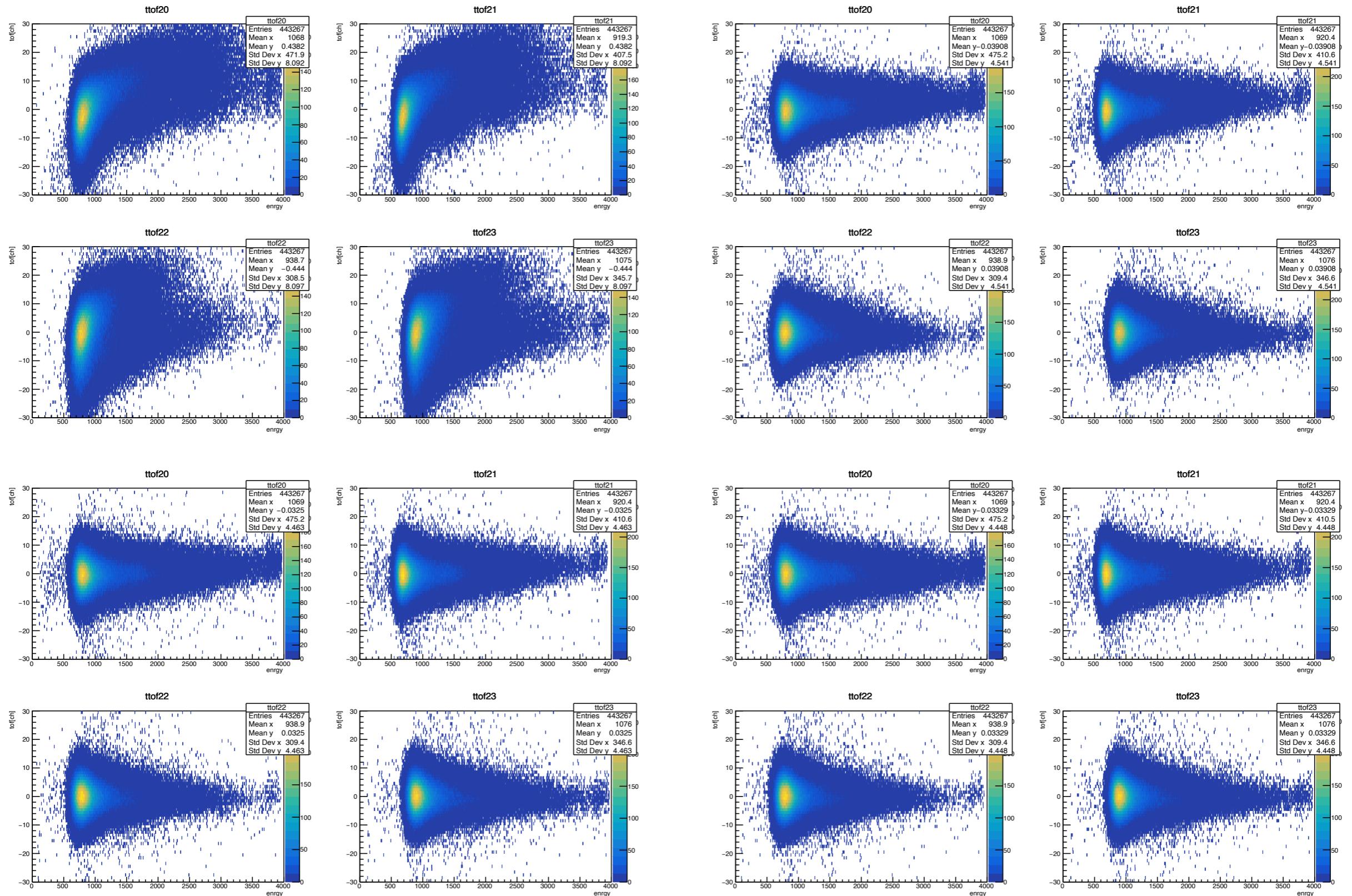
縱軸：time resolution [ps]

条件2 ; 自身の tdc != -1

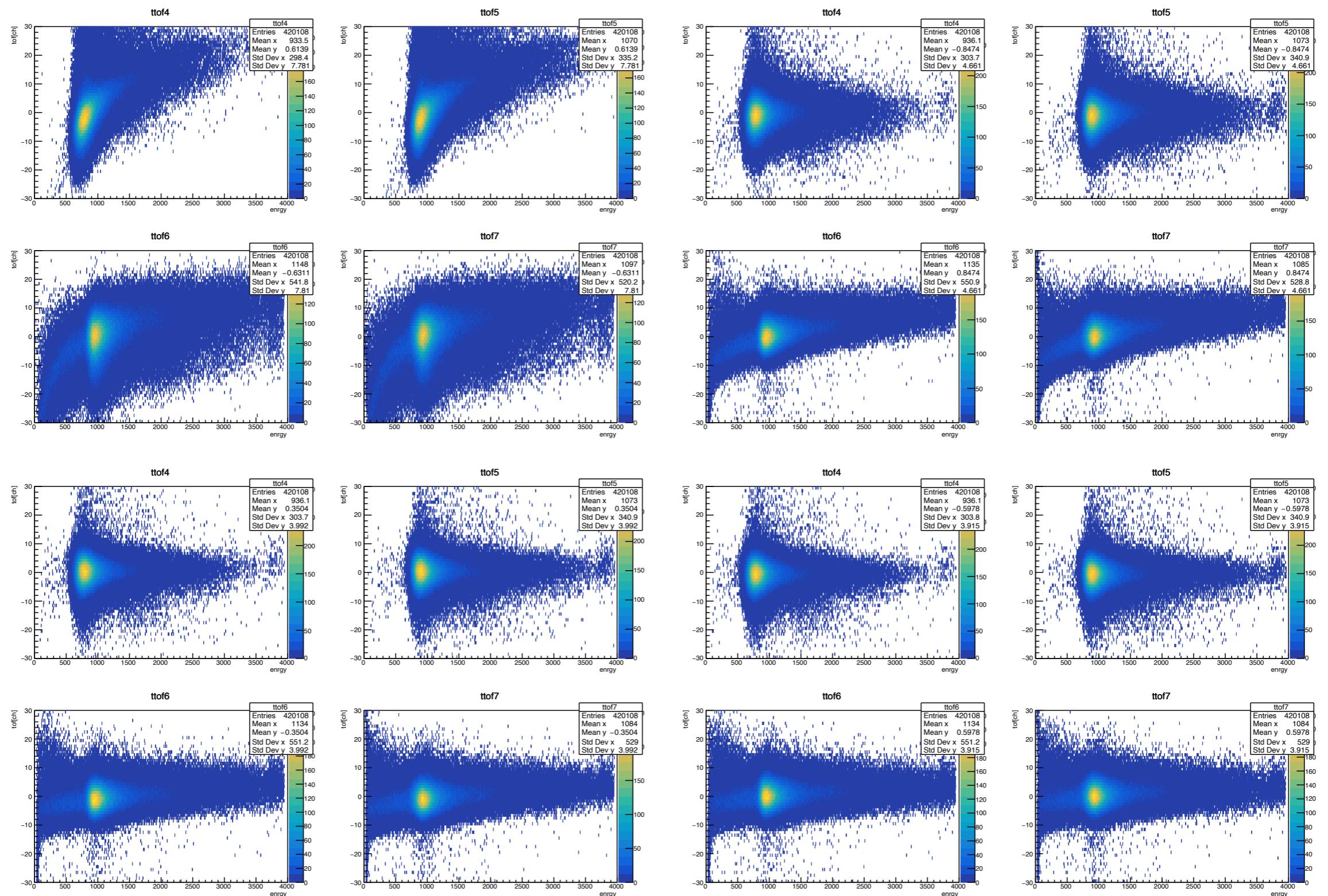
Ref1-Ref2



CNC1-CNC2

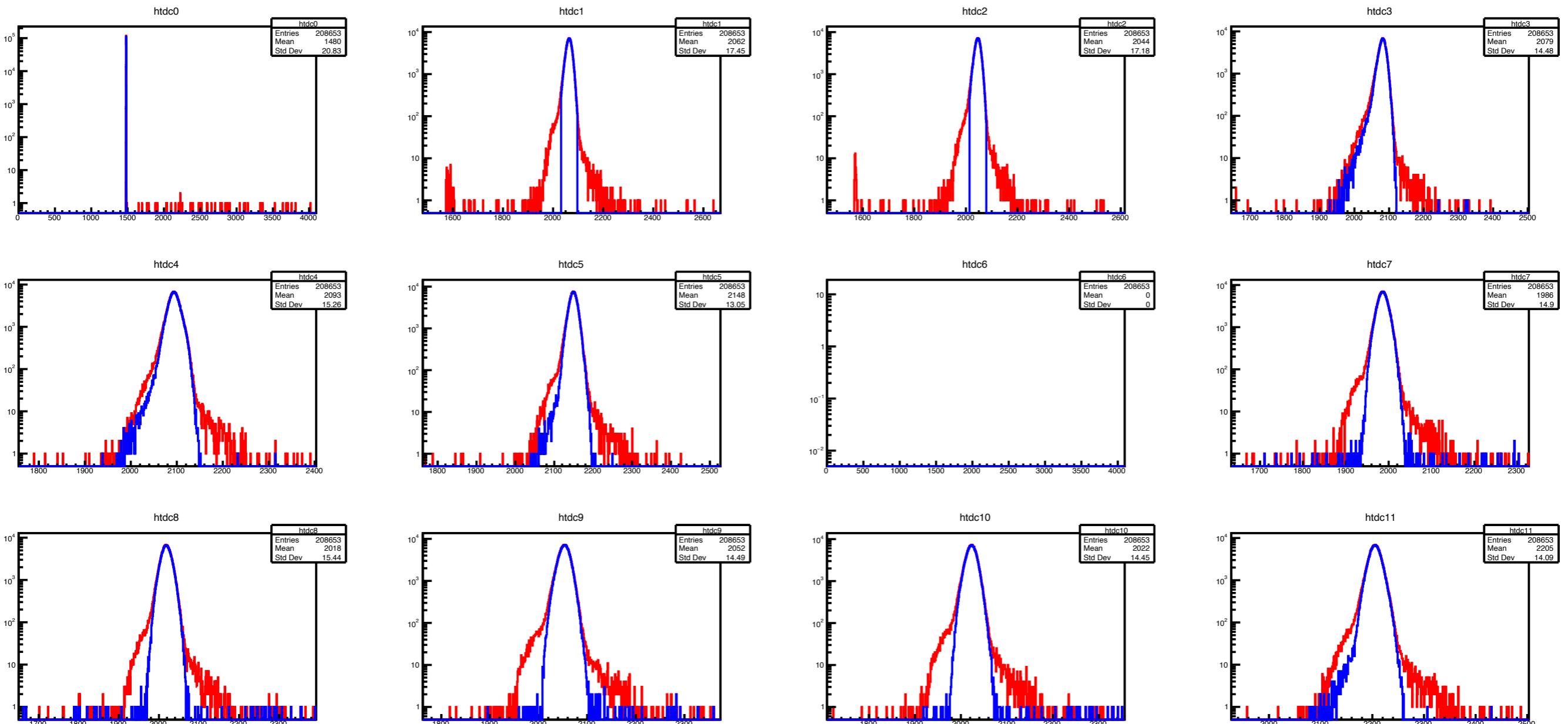


CNC1-Ref1

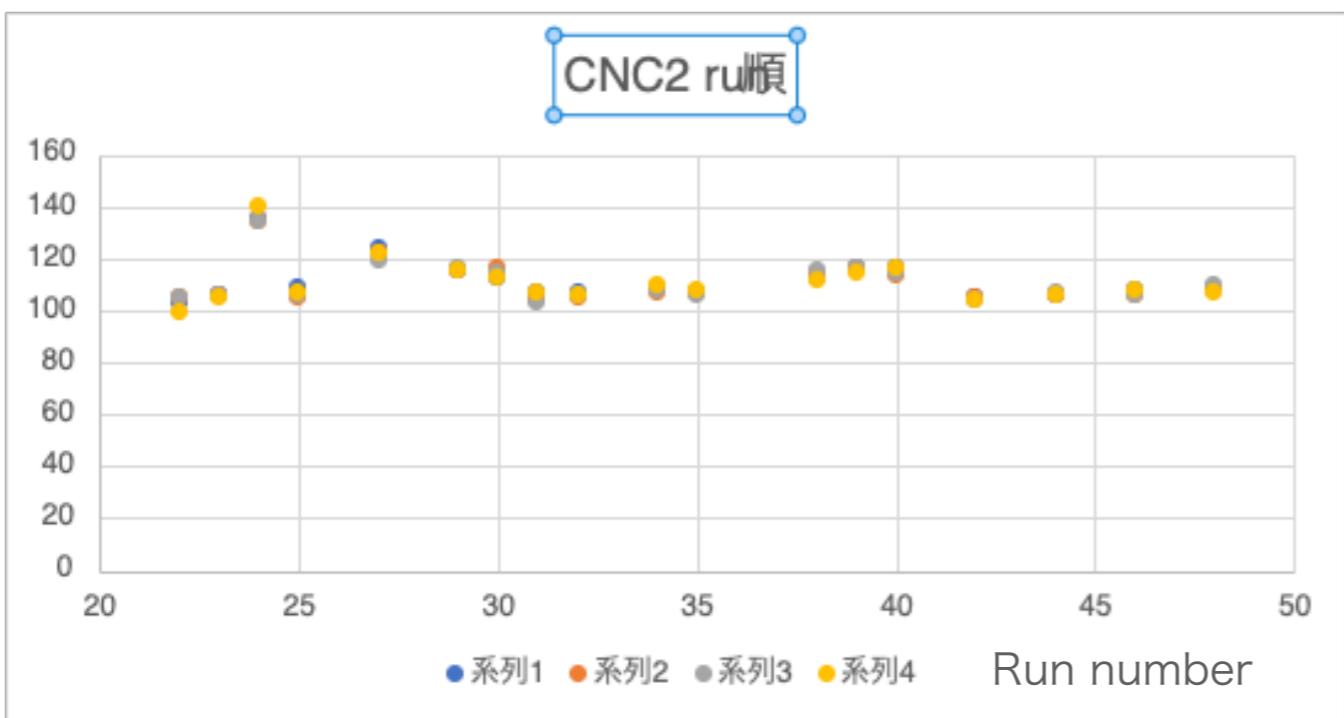
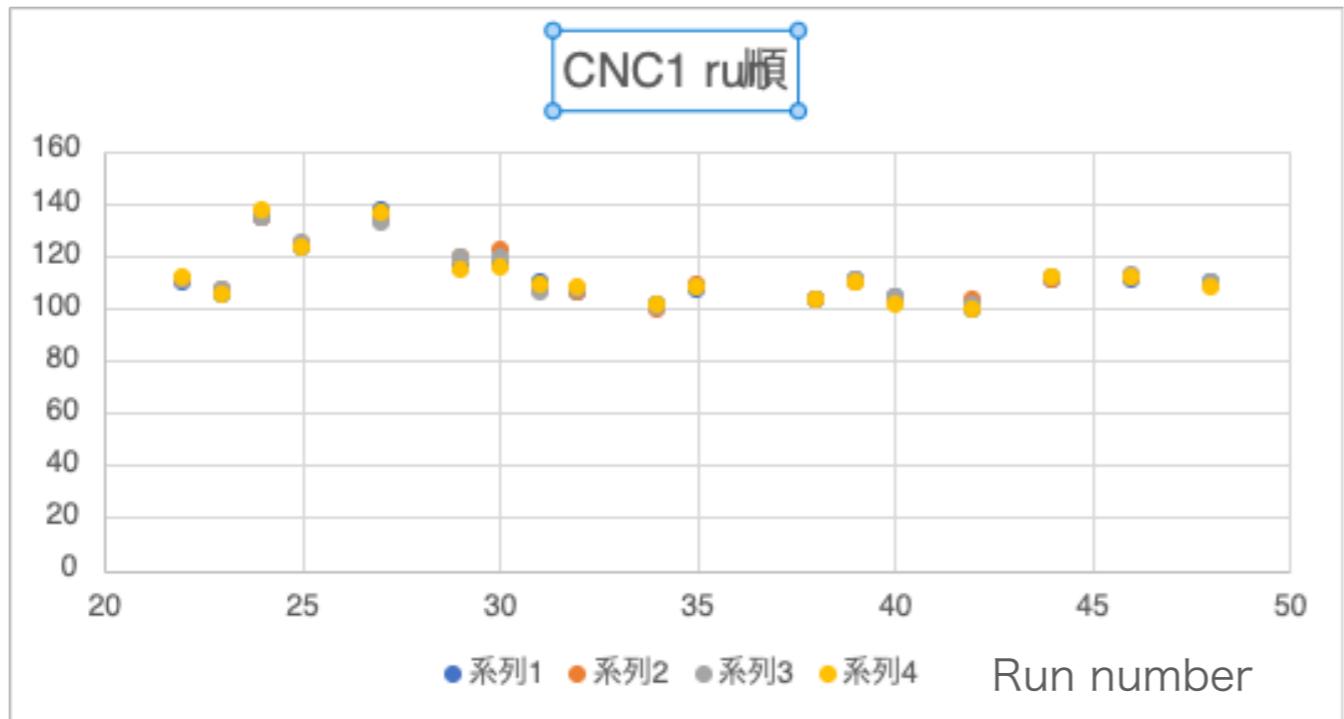


条件3 ; trig1に対して3 σ

TDCに対して何かしらcutをかけたら分解能は変わるのか
(検証的な意味合いが強い)

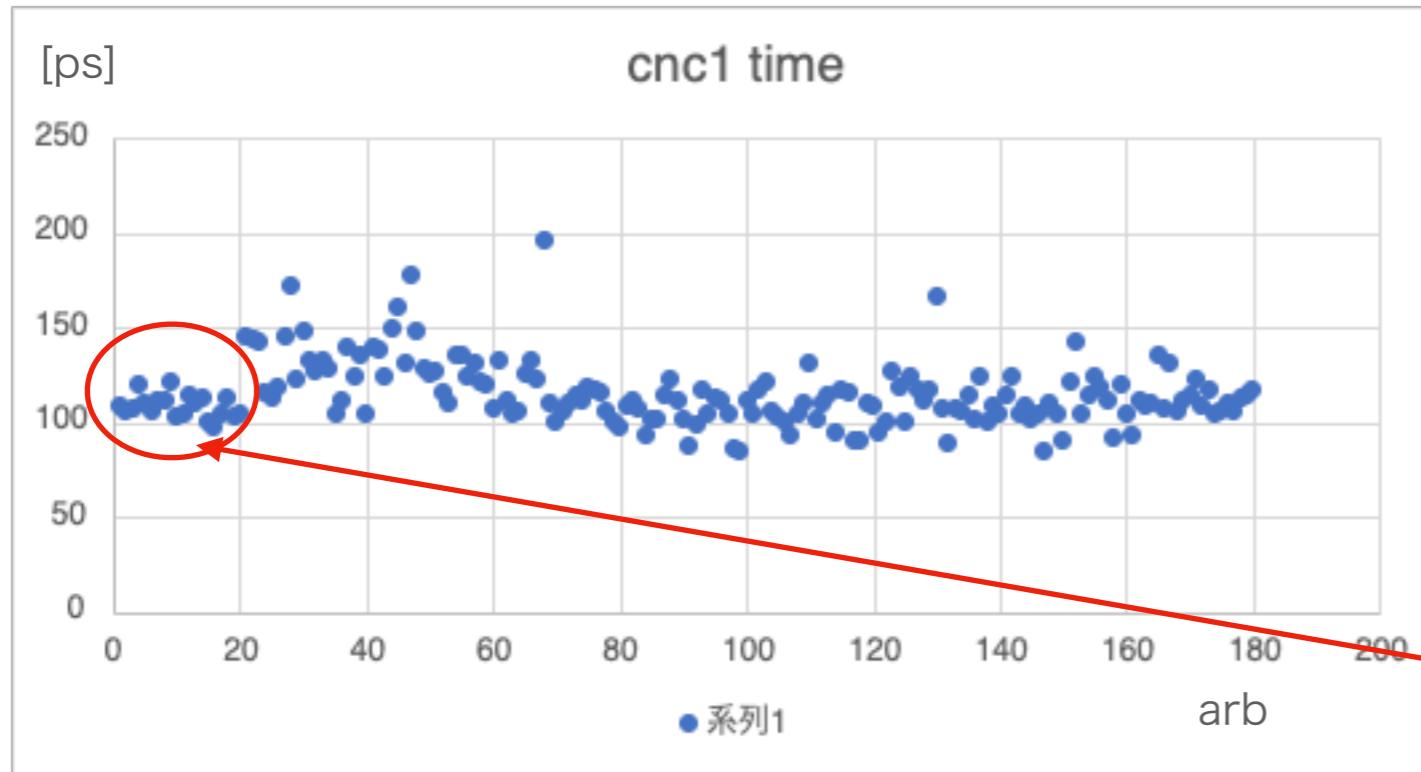


条件4；条件2かつ trig TDC != -1

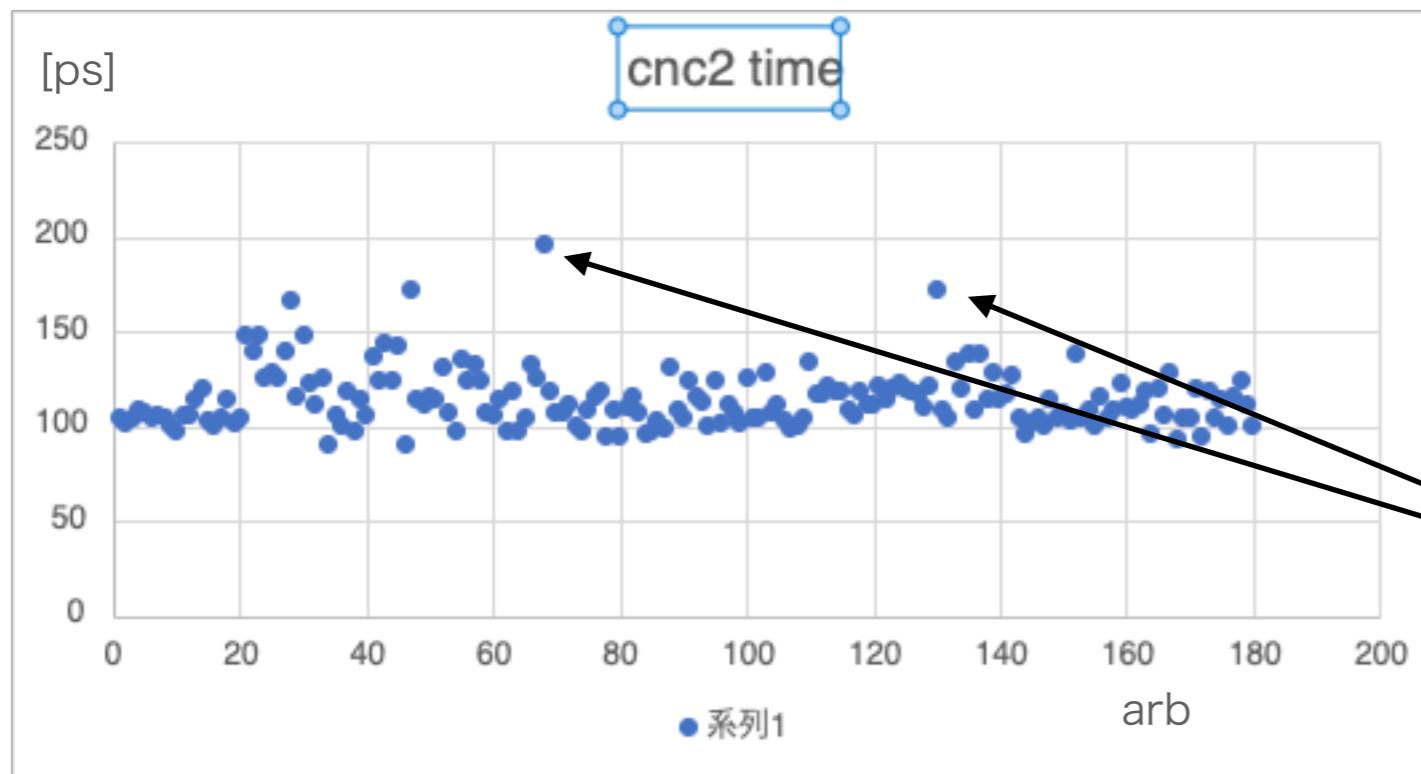


各runを10分割

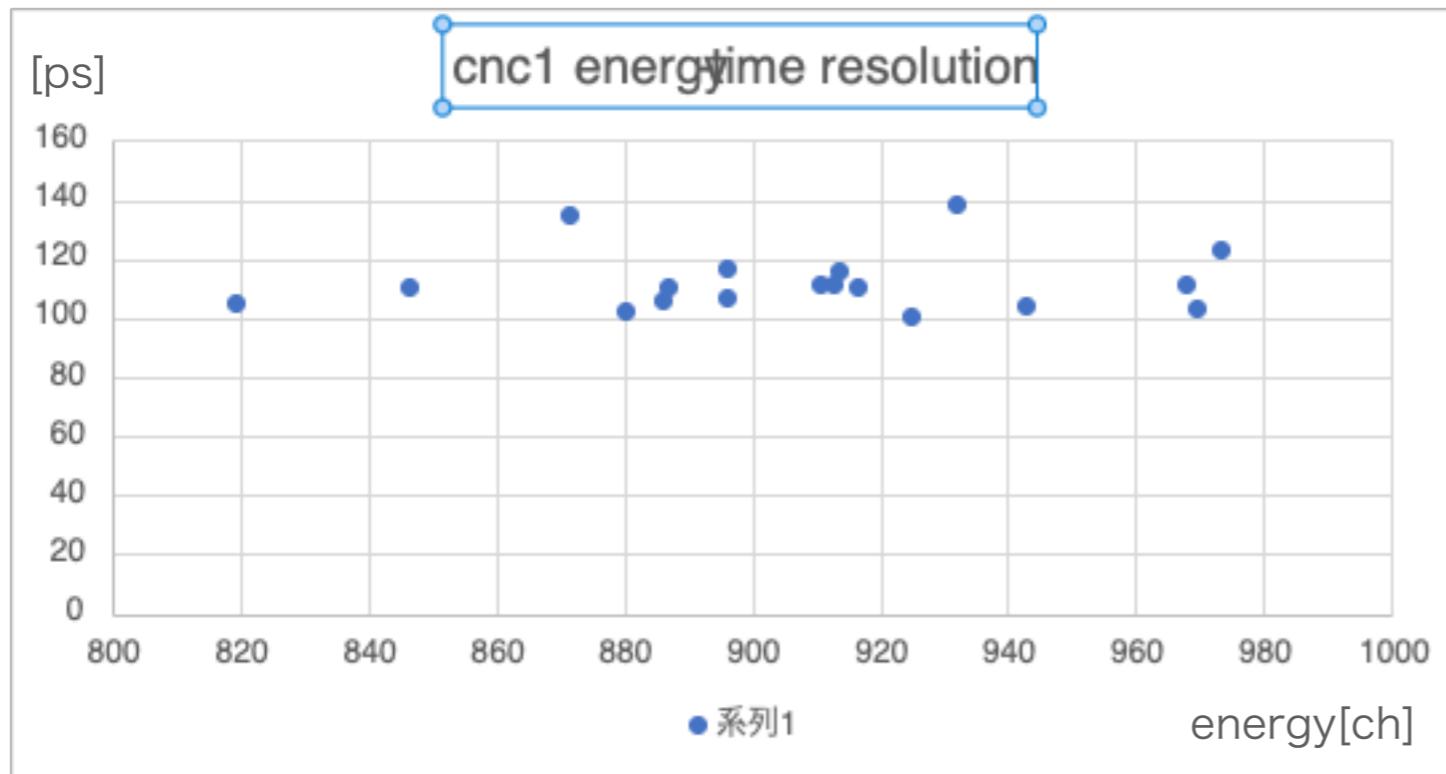
~20psのばらつき有り？



このブレが小さいのは他のrunより統計量が多いから



この人たちが大きく外れている原因是これから調査



EnergyはLとRのpeakの相加平均で出したが相関は見えず

→ 相乗平均の方が良いとのお達し有り。

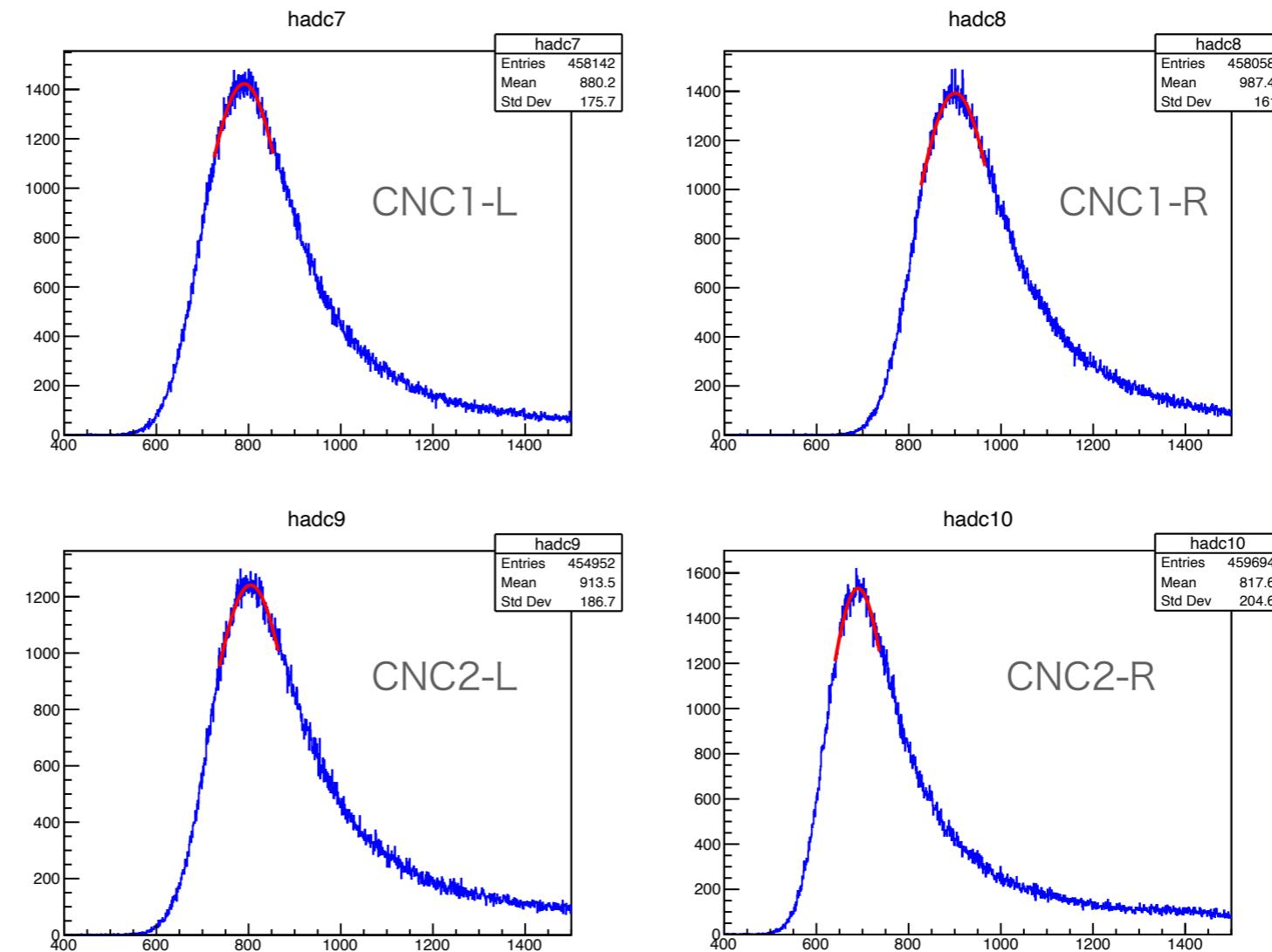
→ とりあえず片側のデータだけで見たらどうなるか

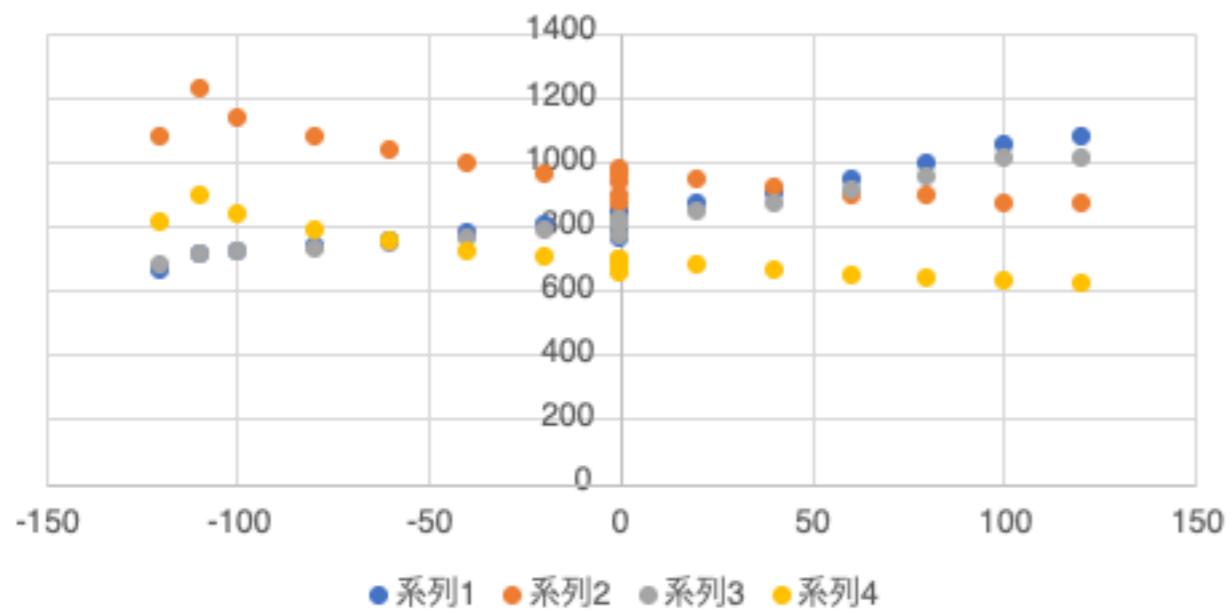
片側のみの時間分解能は悪くなりました。fit範囲をしっかり決めてない（左右平均の時と揃えてない）ので定量的にはなんとも言えません。

とりあえずCNCの位置とpeakの関係をもう一度調べました

fittingの様子

Peakを知りたいだけなので
fit範囲は狭くしました。
fit関数はGaussianです。

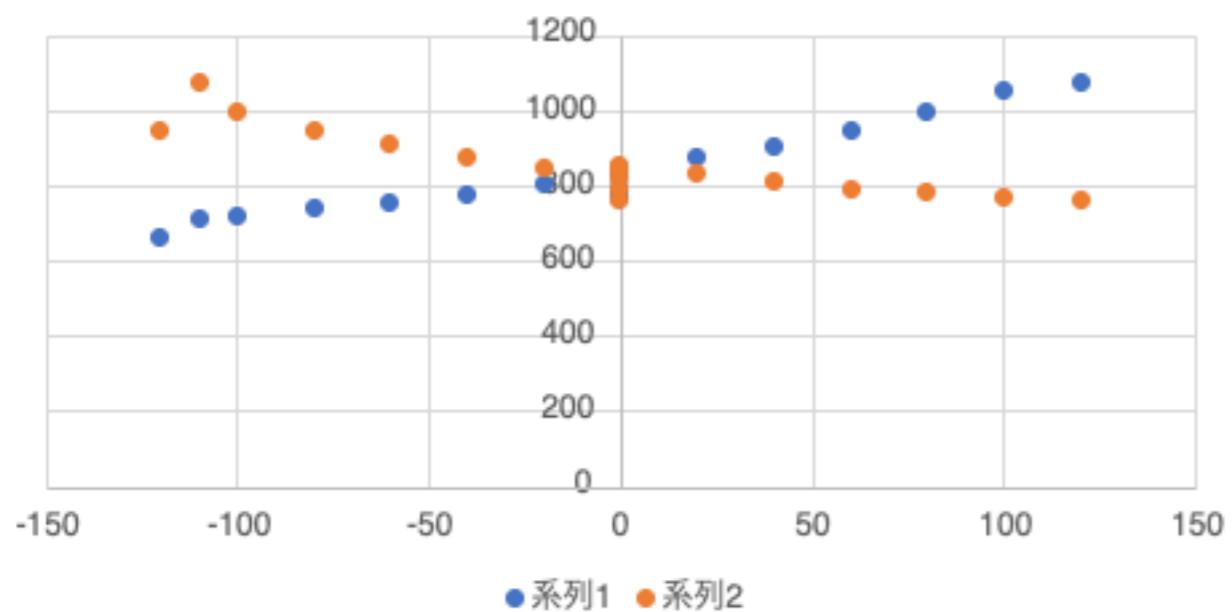




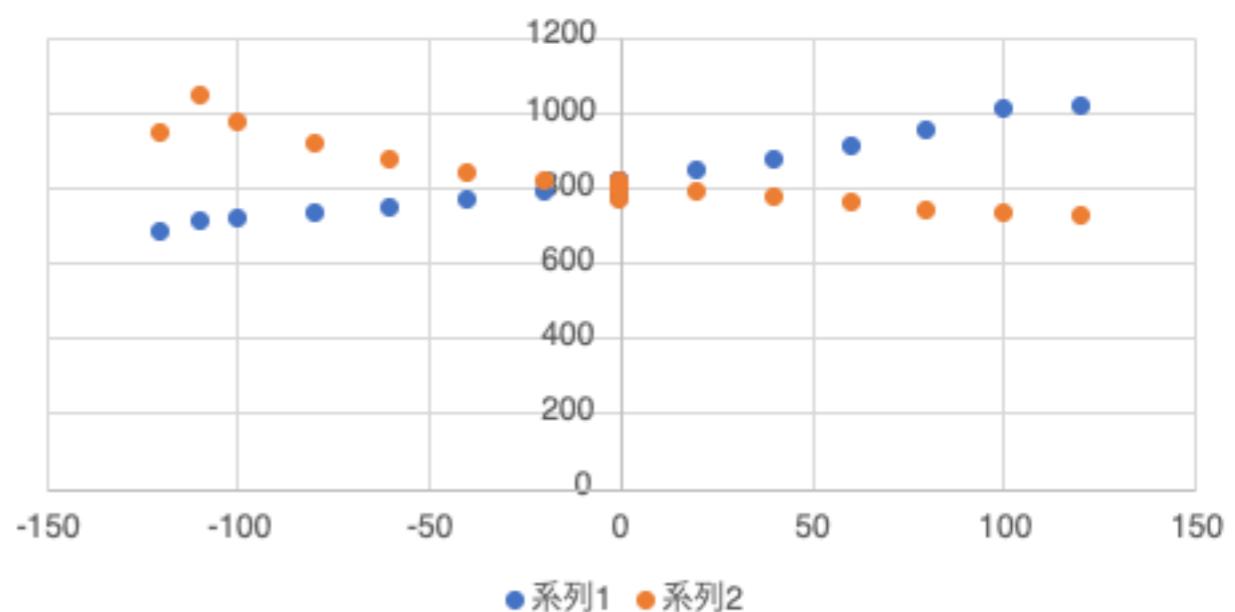
run22のpeak値で”規格化”

1,2それぞれでpos=0の値を揃えた。

cnc 1



cnc2



今後

CNC片側で分解能を出してpeak値と分解能の相関を調べる。

Light guide等、他の解析も進める。