

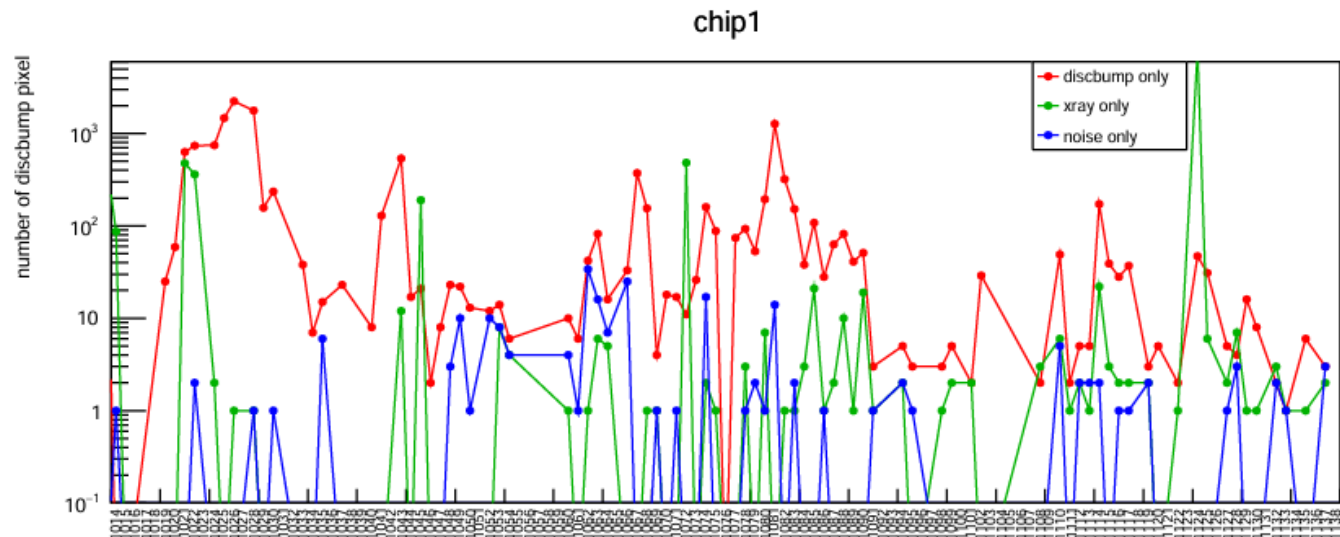
Bump delamination analysis

2/2/2024

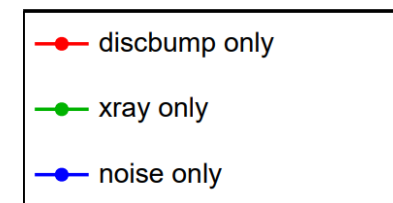
筑波大B4 Rina Sugawara

Contents

- 先週：discbumpで余分に多く見えてるのは、端pixelでクロストーク量が足りてないわけではなさそう



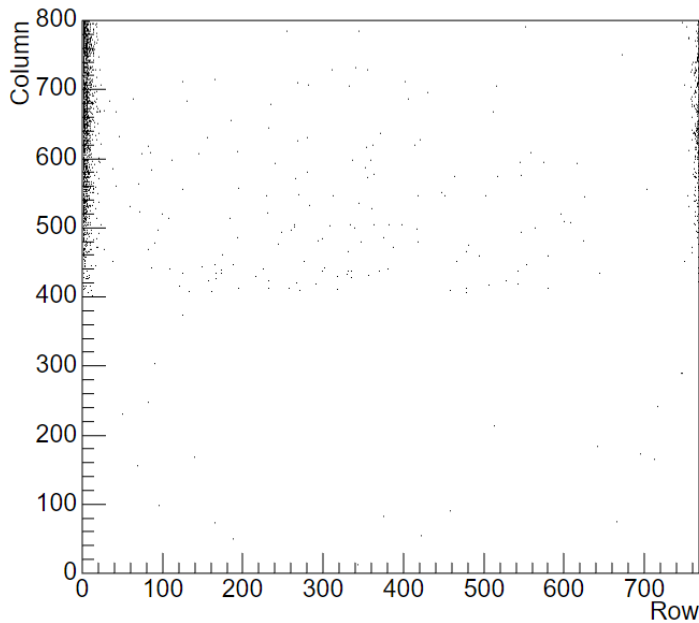
SN



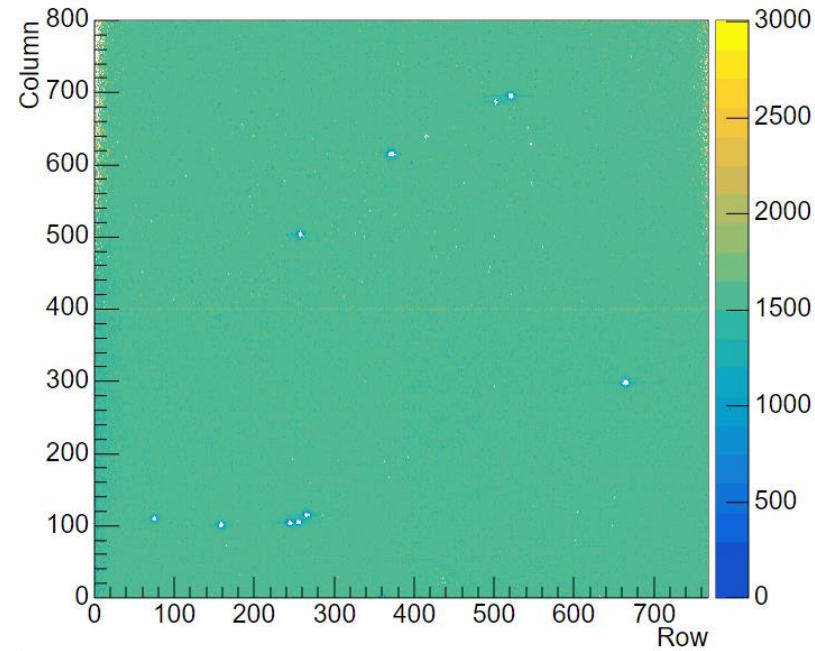
- discbumpで剥がれ判定されたpixelの配置、threshold、TDAC確認

20UPGM22601026

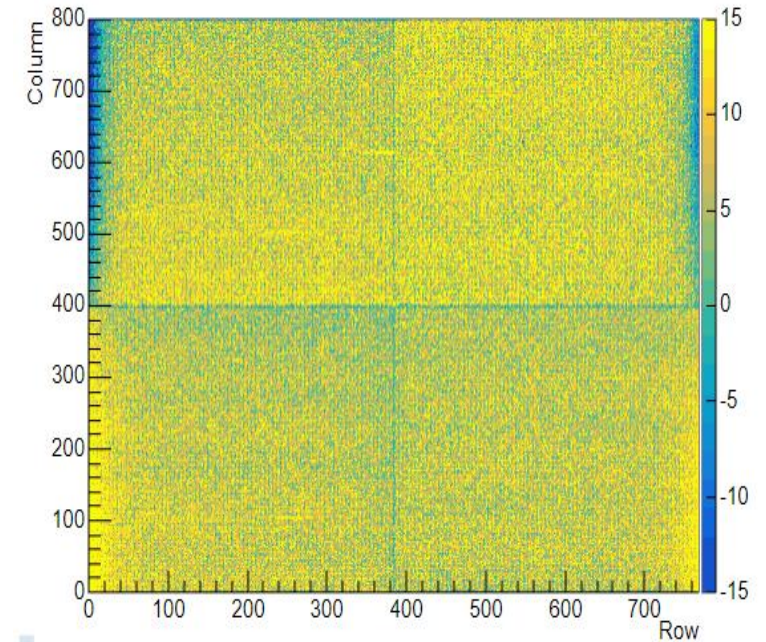
discbumpで剥がれ判定されたpixel



Threshold map

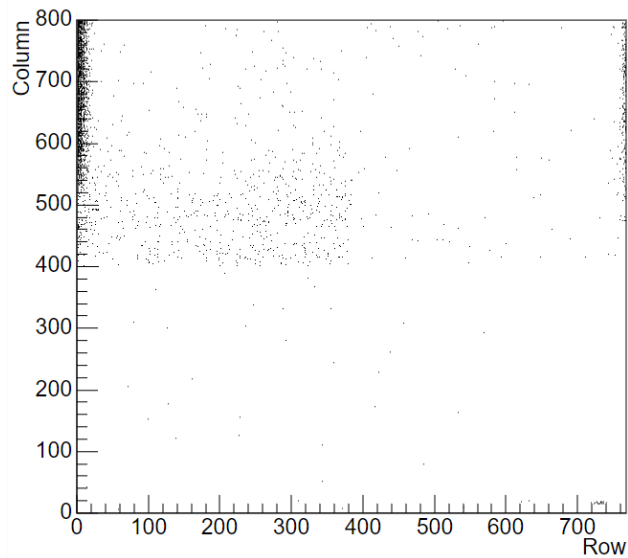


TDAC

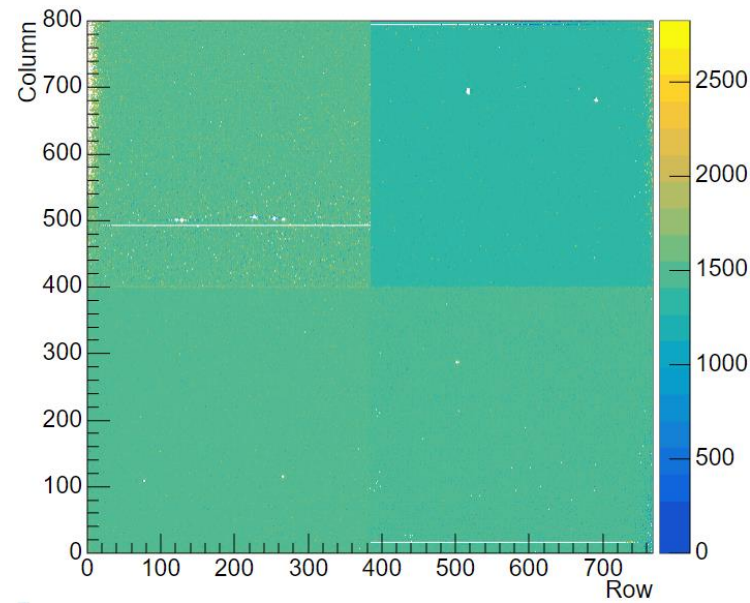


20UPGM22601027

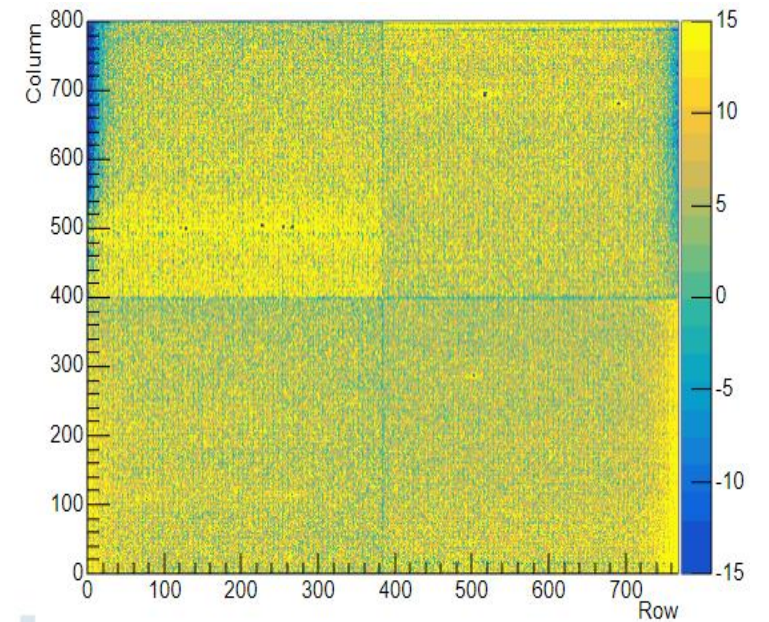
discbumpで剥がれ判定
されたpixel



Threshold map

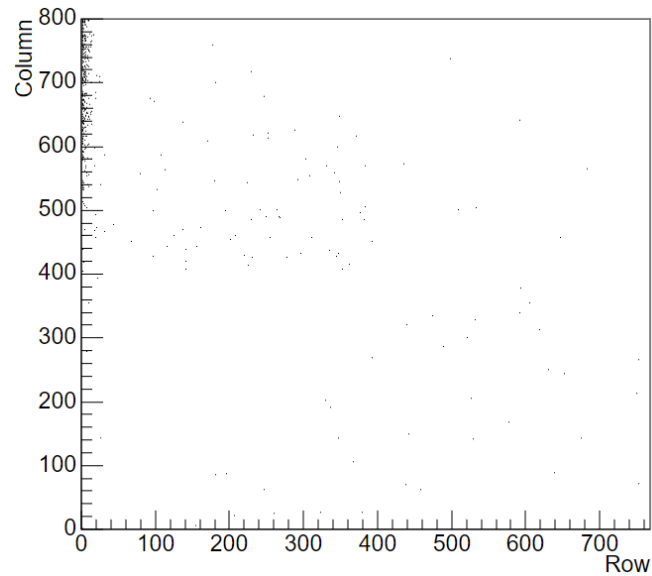


TDAC

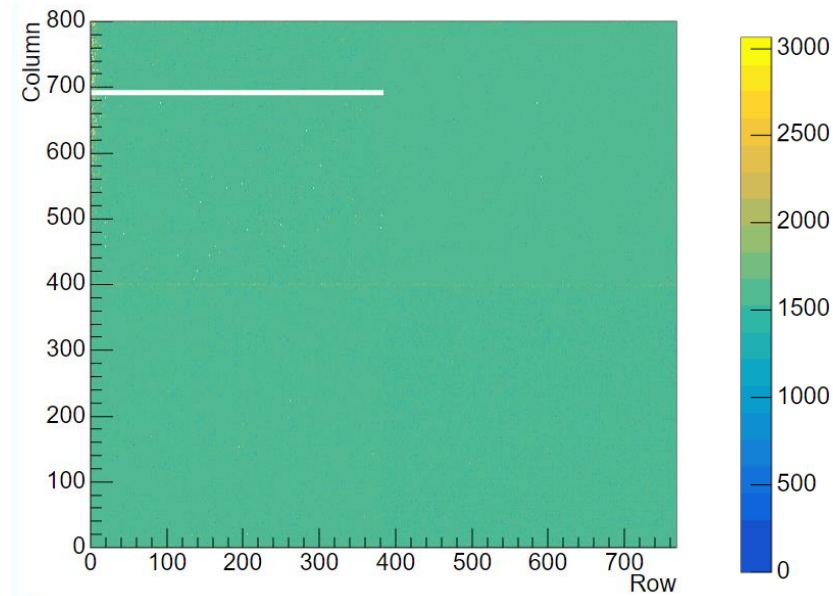


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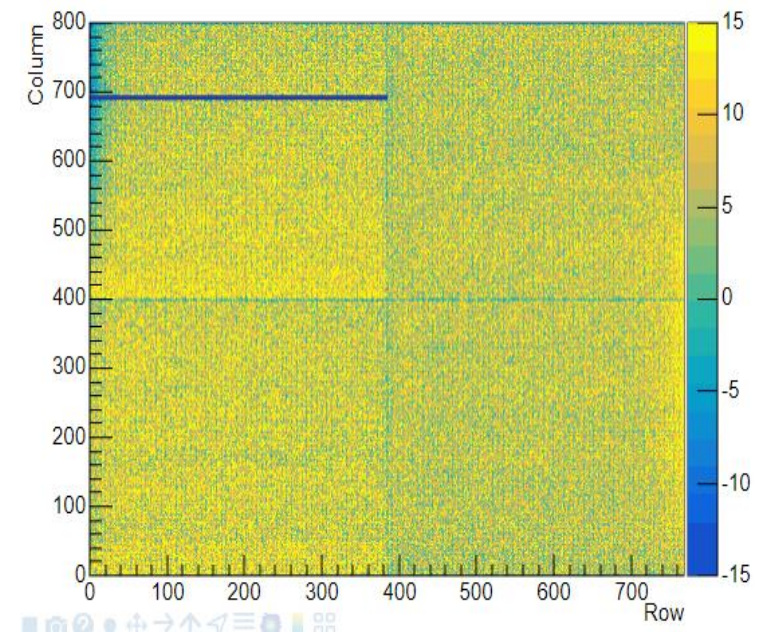
discbumpで剥がれ判定
されたpixel



Threshold map

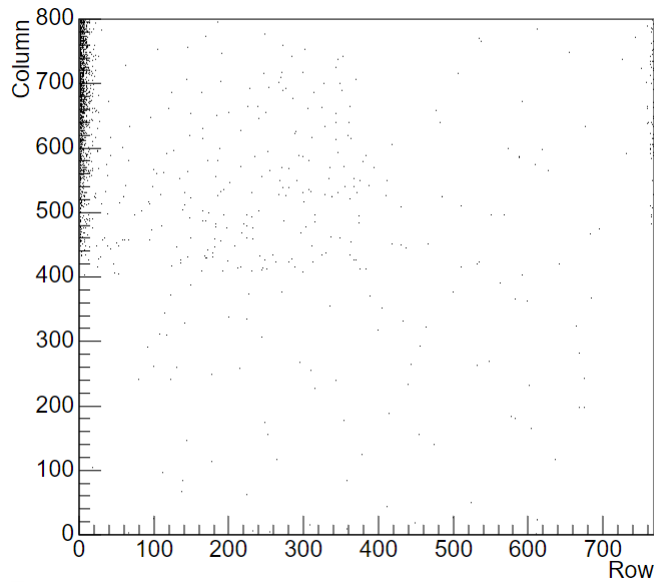


TDAC

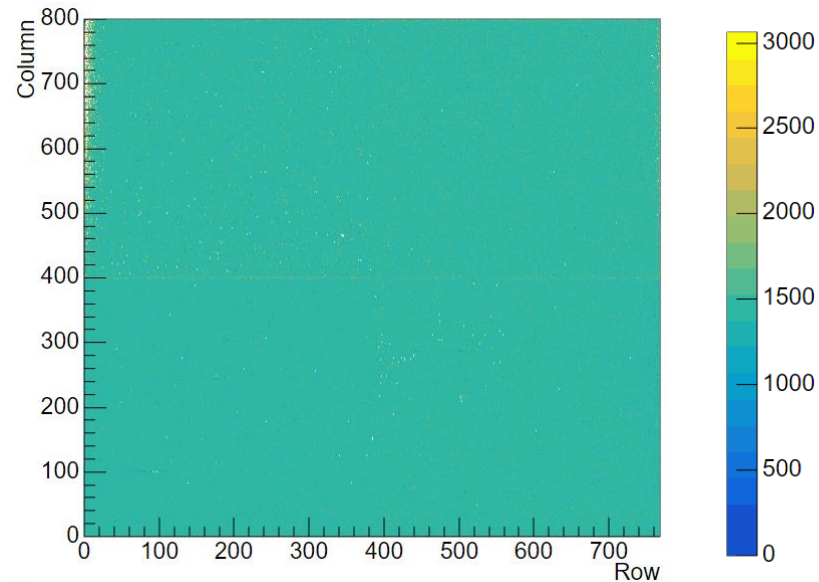


20UPGM22601082

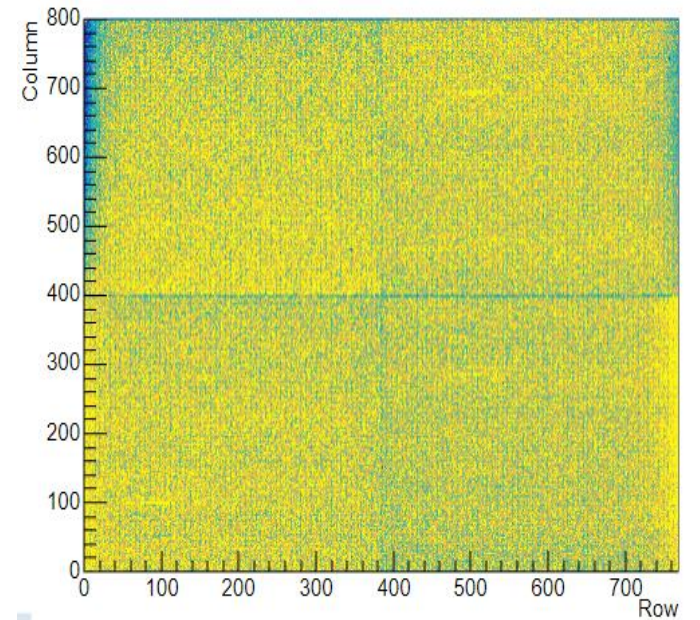
discbumpで剥がれ判定
されたpixel



Threshold map

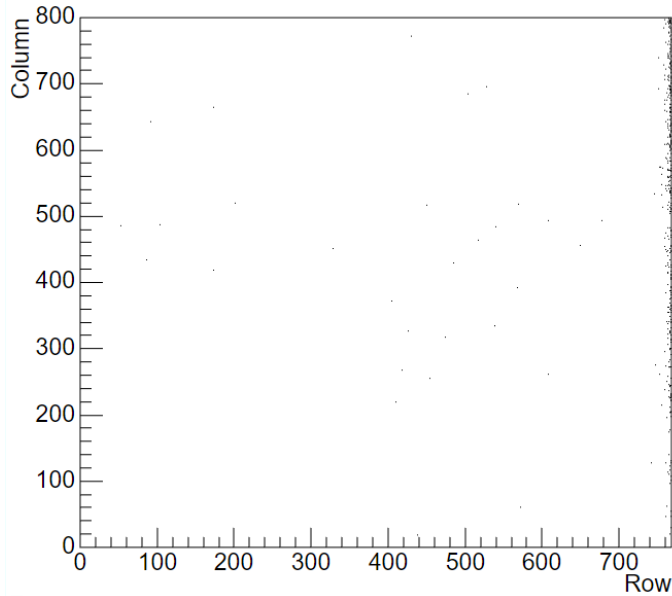


TDAC

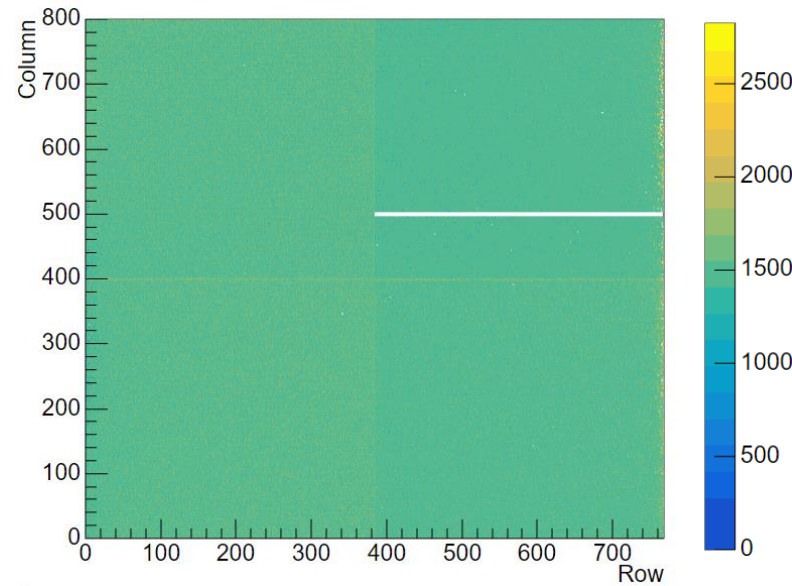


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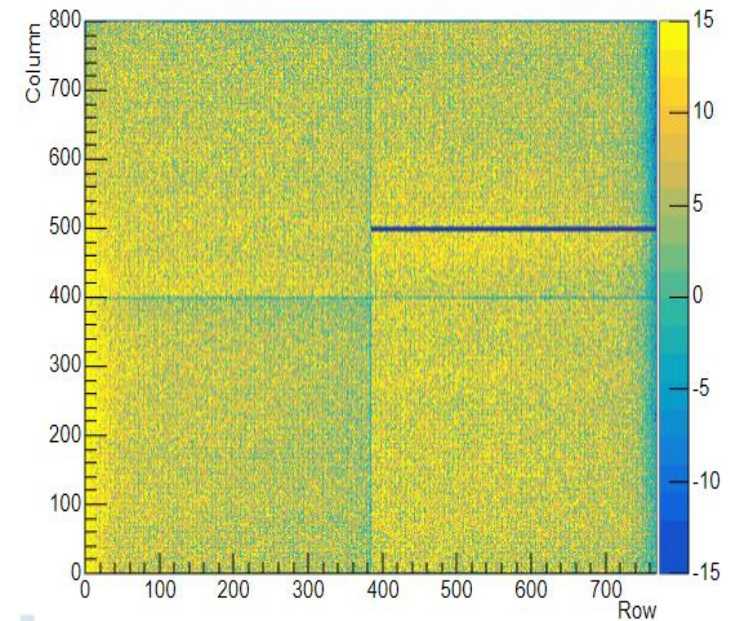
discbumpで剥がれ判定
されたpixel



Threshold map



TDAC



- 剥がれ判定されたピクセルでTDACが-15になってる
- ➔ ノイズの影響でtuningがうまくいかずthresholdが高めになってる
- ➔ 十分なクロストーク量があってもthreshold超えず、discump scanでoccupancy下がってる

Back up

現在の各scan評価基準

- 解析に使っているscan

- マスク情報用：analog scan (EnMask)

- 剥がれ判定用：disc-bump scan、zero-bias scan、xray scan

- 剥がれ判定基準

- disc-bump scan：Occupancy.json = [0,25]

(50回の試行のうち応答があったのが半分以下のpixel = 剥がれpixel)

- zero-bias scan：NoiseMap-0.json = [18.7, 56.7]

(ASICノイズの分布をgaussian fitしたときの3σ内に含まれるpixel = 剥がれpixel)

- xray scan：Occupancy.json = [0,10]

(応答が10 hits以下だったpixel = 剥がれpixel)