Mulitple Fireing and Charge Diffusion

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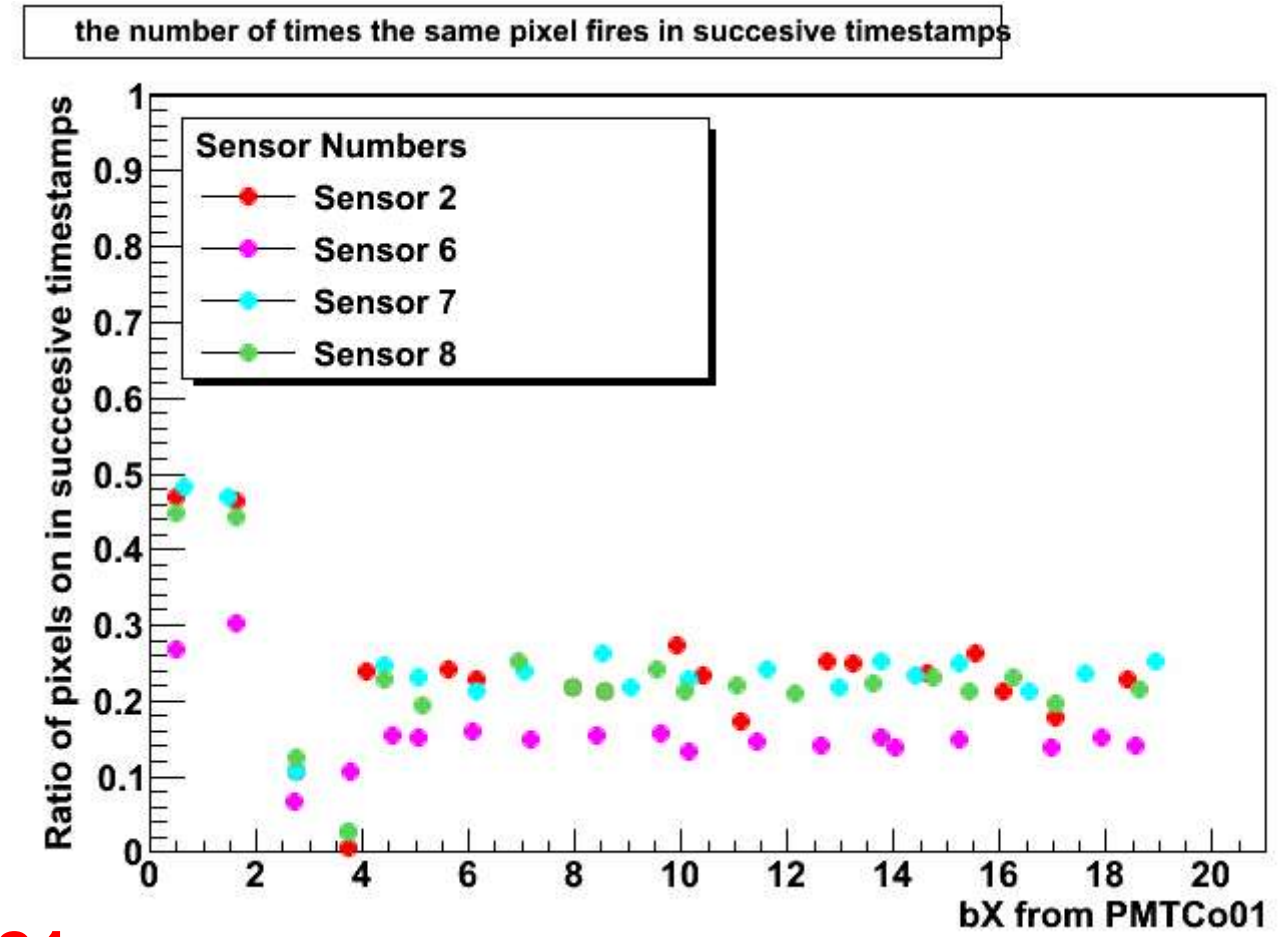
Introduction

- Been looking for Clustering patterns
- Proven difficult due to high numbers of events passing cuts
- Investigated pixel double firing rate

Multiple Pixel Firing

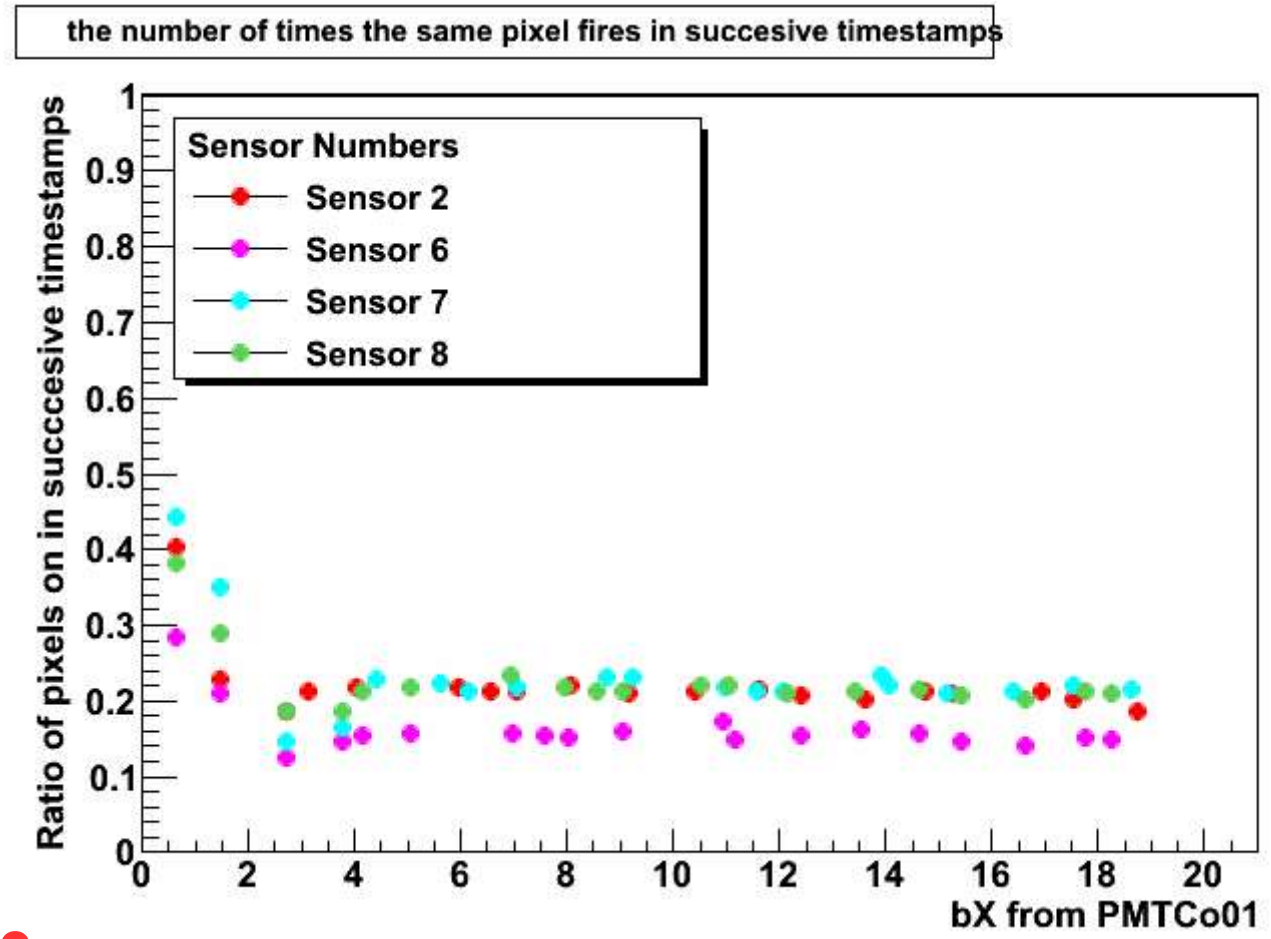
- Looked for pixels which were active in two consecutive timestamps
- Found the total number of pixels active
- Allowed a fraction still firing to be calculated

Run447480



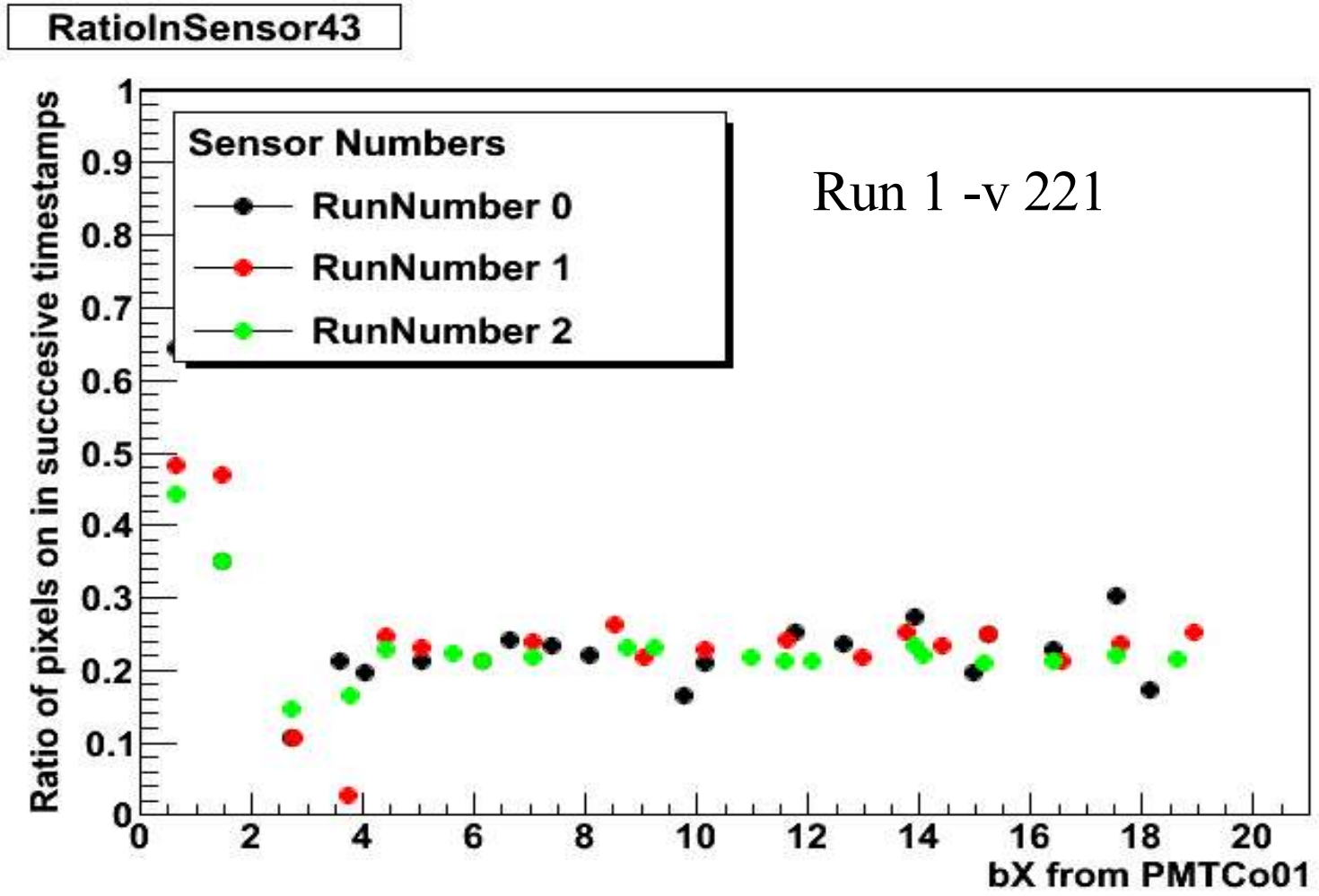
- -v 221
- Sensor 2 = 29; 6 = 41; 7= 43; 8=48

Run447481

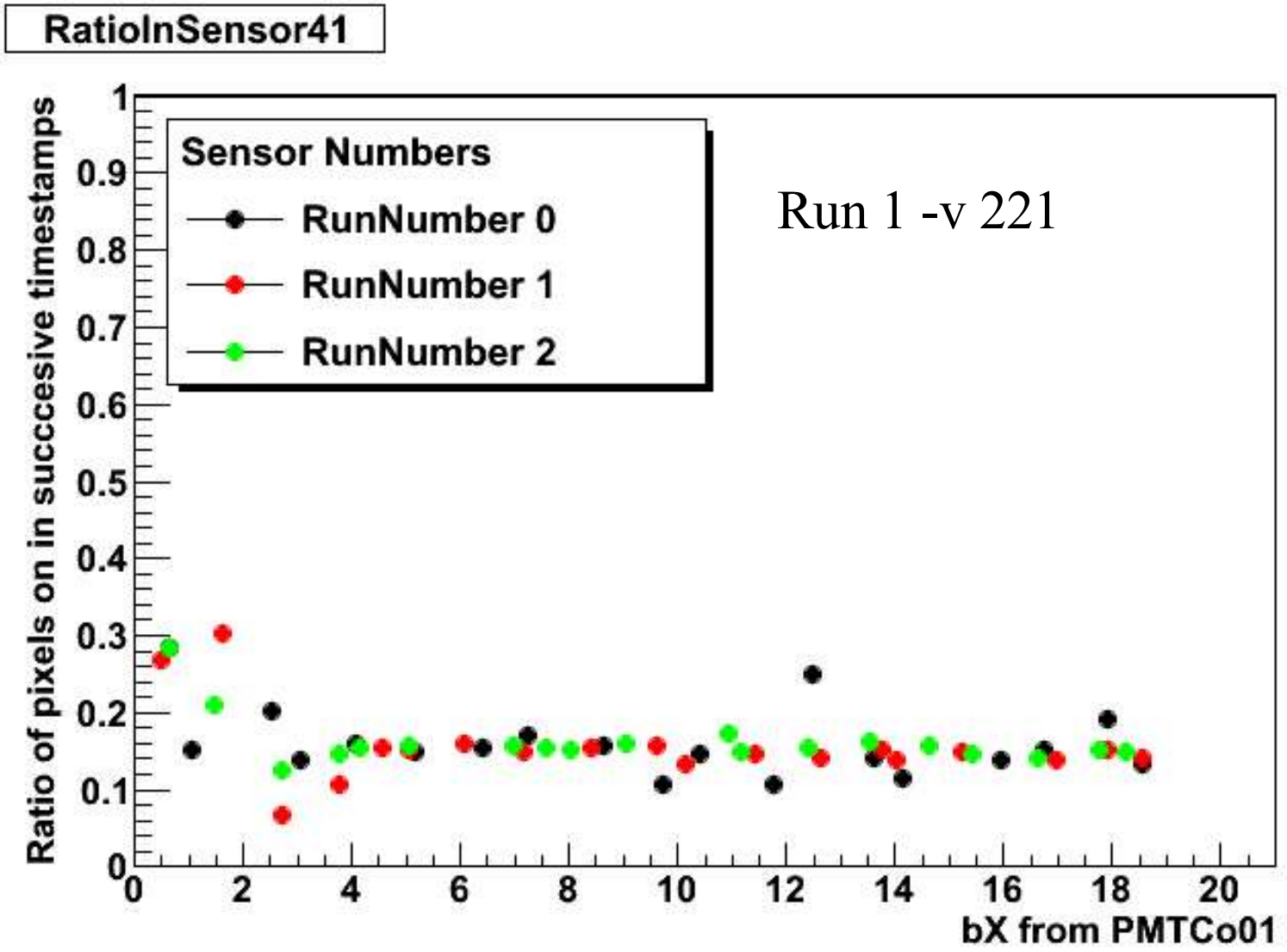


- -v 0
- Sensor 2 = 29; 6 = 41; 7= 43; 8=48 No 32 or 26!!

Thresholds


RatioInSensor43
Sensor Numbers
RunNumber 0
RunNumber 1
RunNumber 2
Run 1 -v 221
Ratio of pixels on in succesive timestamps
bX from PMTCo01
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
2
4
6
8
10
12
14
16
18
20

Thresholds



Run 1 -v 221

Multiple Fireing

- Lower threshold less variance on ratio
- 447480 longer run so stats errors should be lower?
  - 1300 bX with beam 447481
  - 12585 bX with beam 447480
- Confusing!! :oS
- Also.. why are the middle sensors missing?