High Voltage Scan

Layer#0

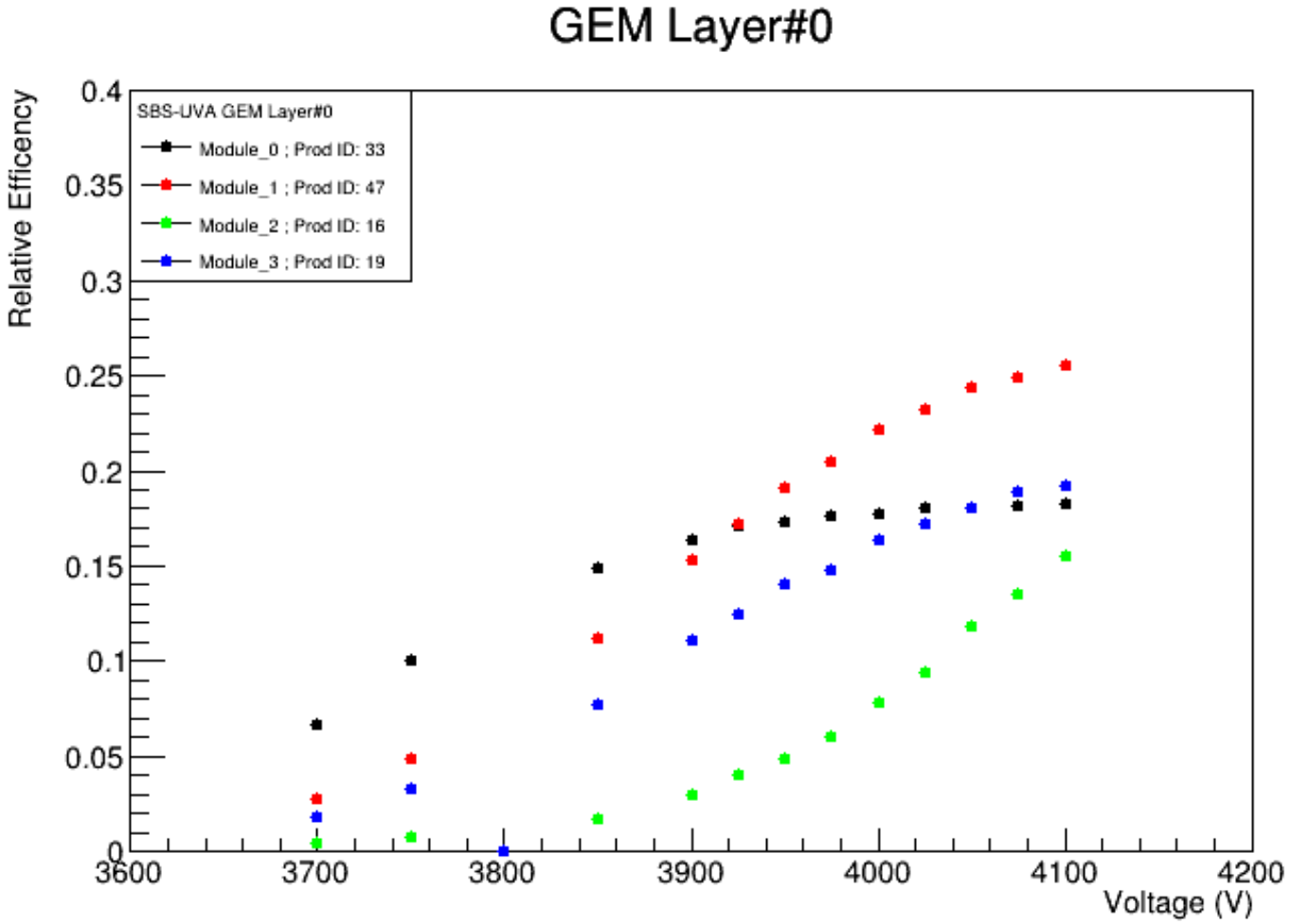
09/02/2020

Layer#0(First layer from Bottom)

Module 0-Prod ID 33,Module 1-Prod ID 47,Module 2-Prod ID 16,Module 3-Prod ID 19
Pedastal Run-1604

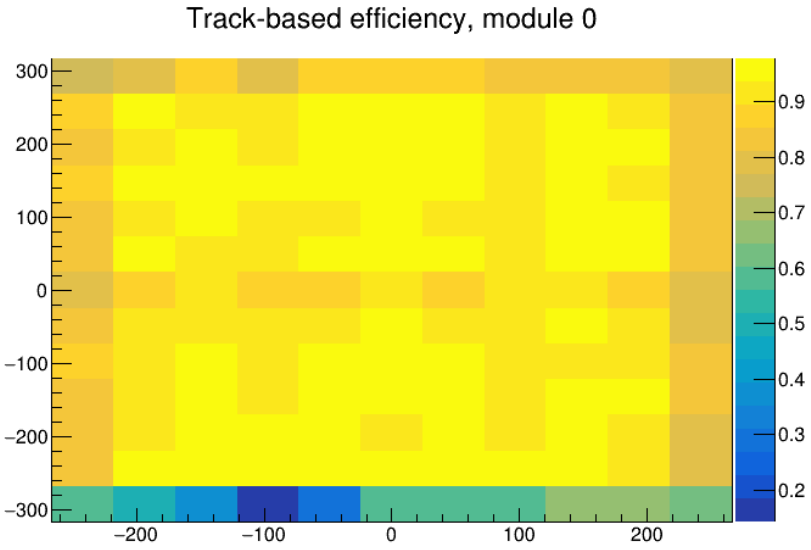
Voltage	Run Number	Number Of Events/1000
3700	1605	201
3750	1606	236
3800	1607	201
3850	1608	264
3900	1642	200
3925	1643	200
3950	1645	200
3975	1647	200
4000	1649	348
4025	1650	80~5x
4050	1651/1652	169/33
4075	1653	200
4100	1654	203

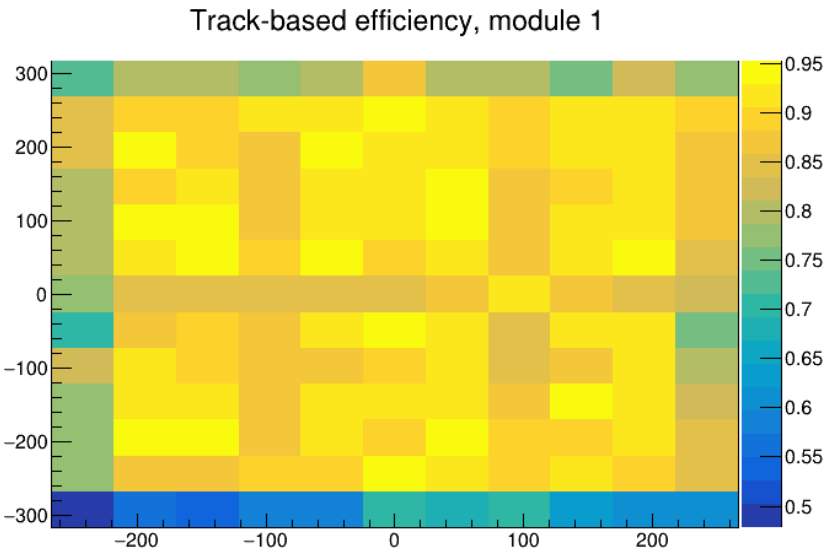
Relative Efficiency Vs Voltage

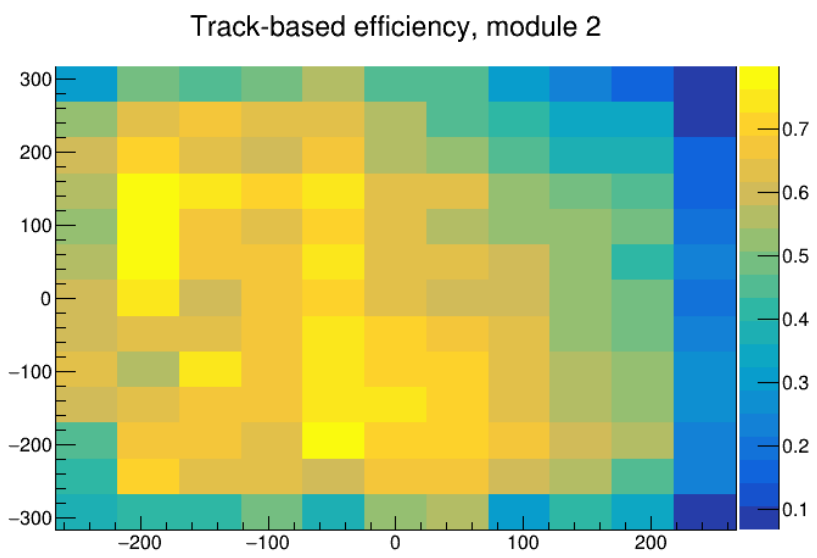


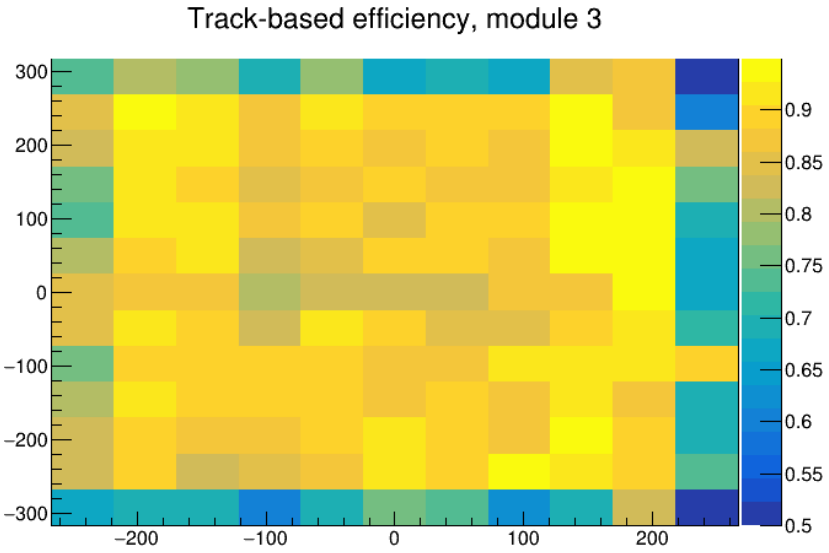
$$\text{Relative Efficiency} = \frac{\text{Number of Clusters per event}}{\text{Number of Trigger events}}$$

Track based Efficiency









Average Track based Efficiency

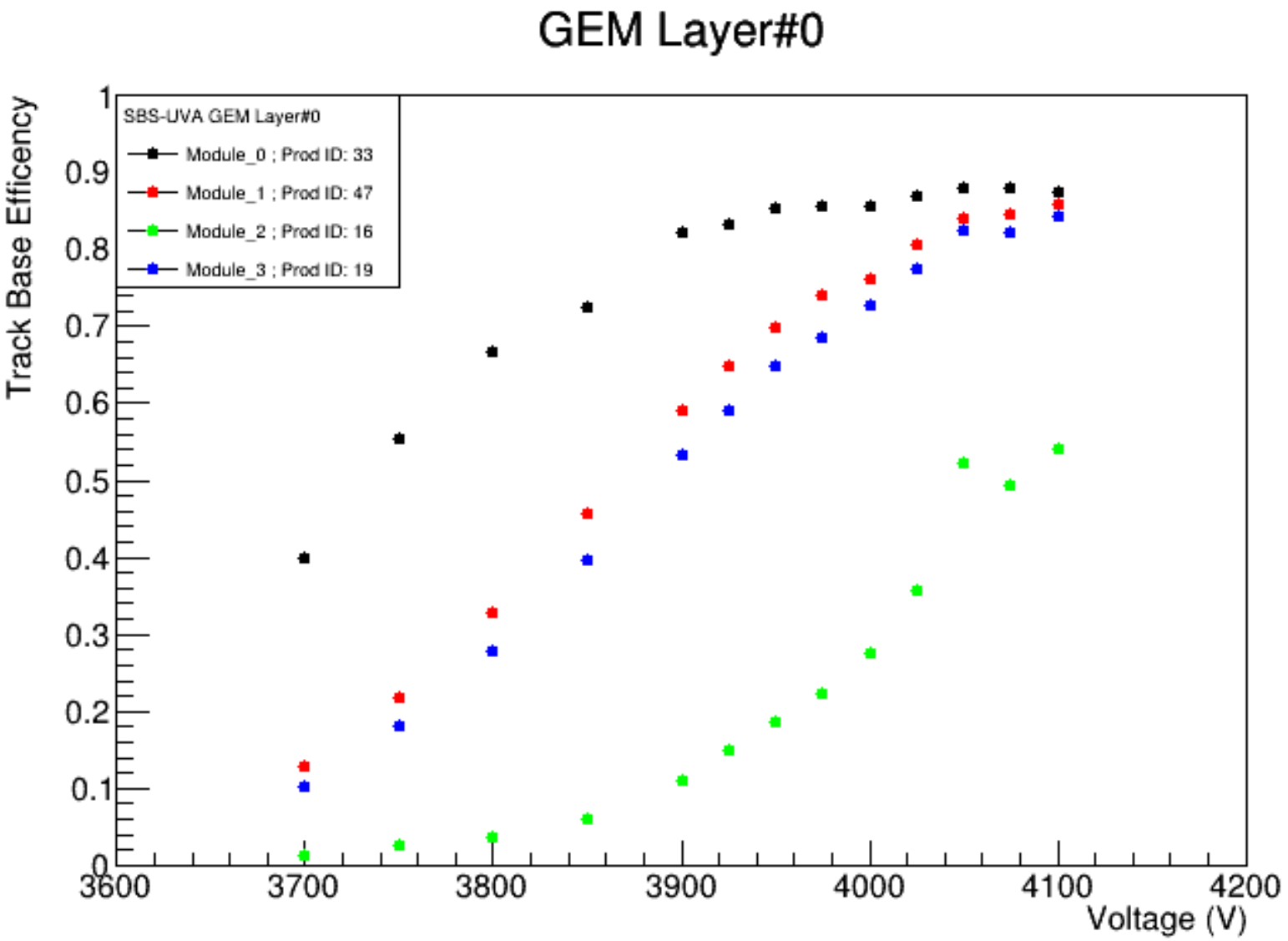
$$\text{Average Efficiency} = \frac{\sum \text{Bin content}}{\text{Number of Bins}}$$

From Tracking root file 2D Histogram

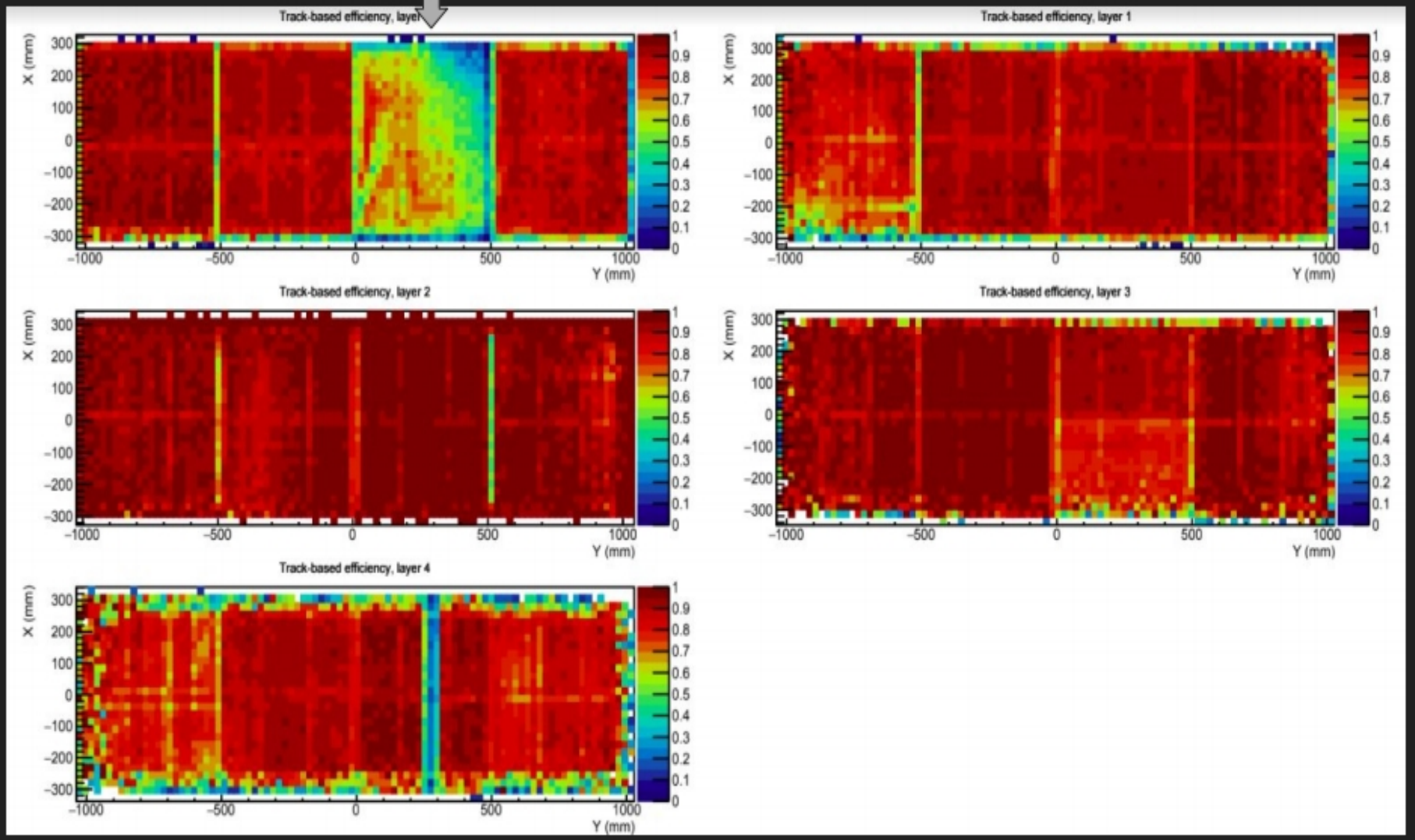
```
for(int i=1;i<=h->GetNbinsX();i++) {
     for(int j=1;j<=h->GetNbinsY();j++) {
    sum_content+=h->GetBinContent(i,j);
```

Average_Efficiency=sum_content/(h→GetNbinsX()*h→GetNbinsY())

Average Track base Efficiency Vs Voltage



Module #16


Track-based efficiency, layer 0
Track-based efficiency, layer 1
Track-based efficiency, layer 2
Track-based efficiency, layer 3
Track-based efficiency, layer 4
X (mm)
Y (mm)