

TB2020 – data analysis

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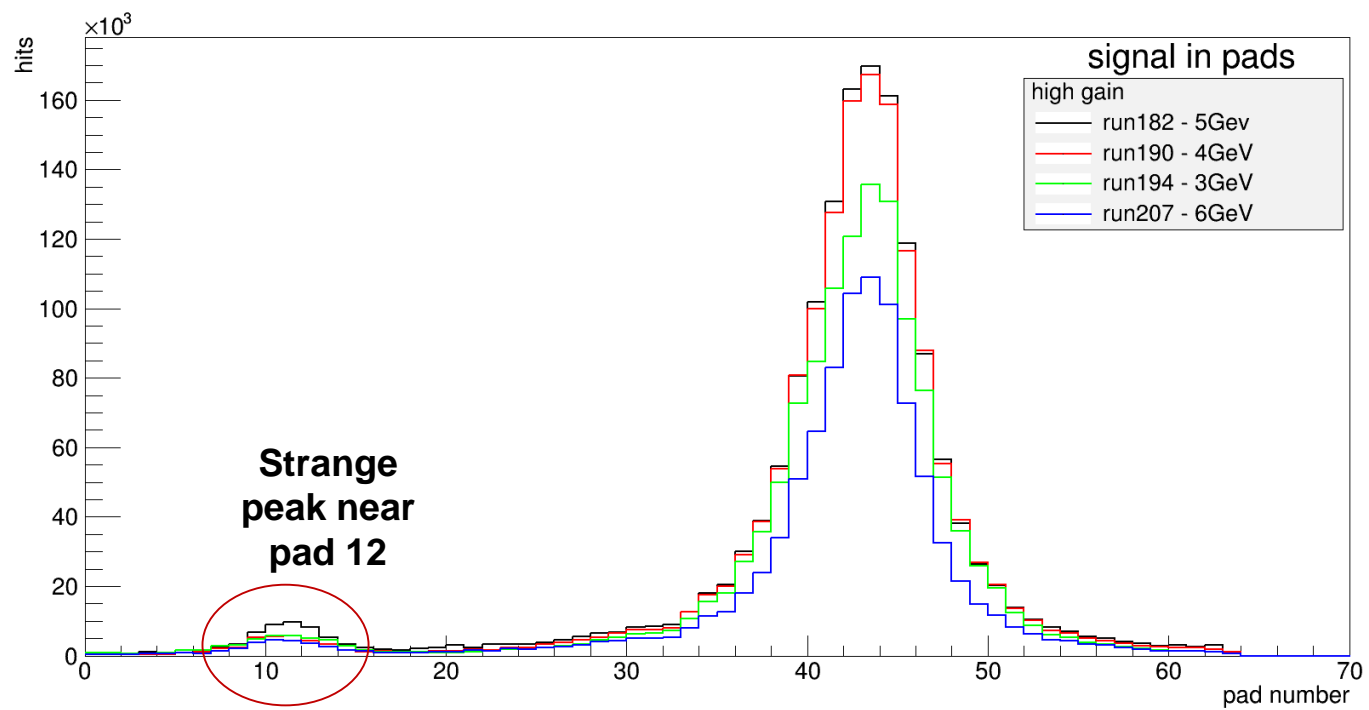
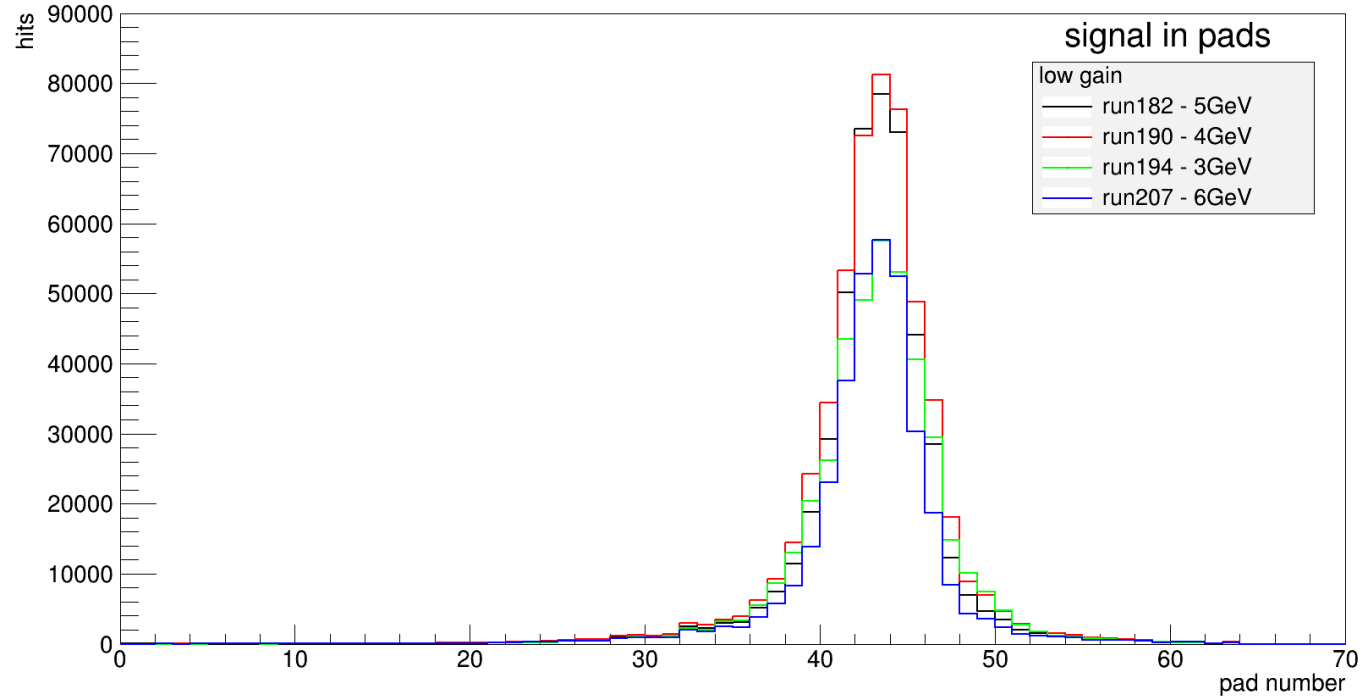
**Institute of Space Science*

Data

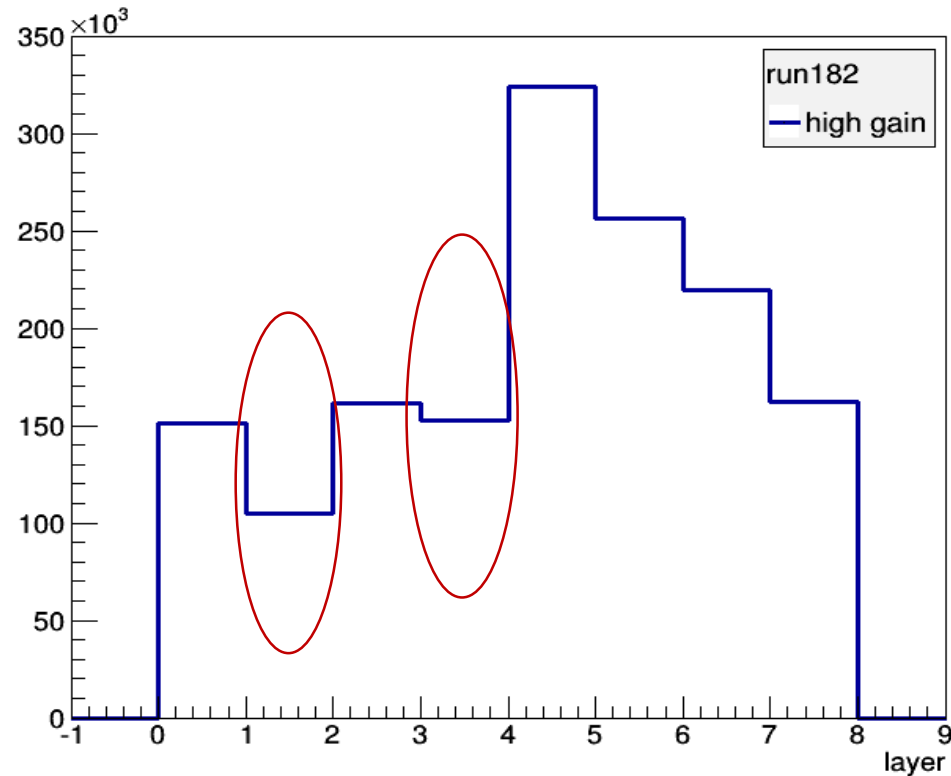
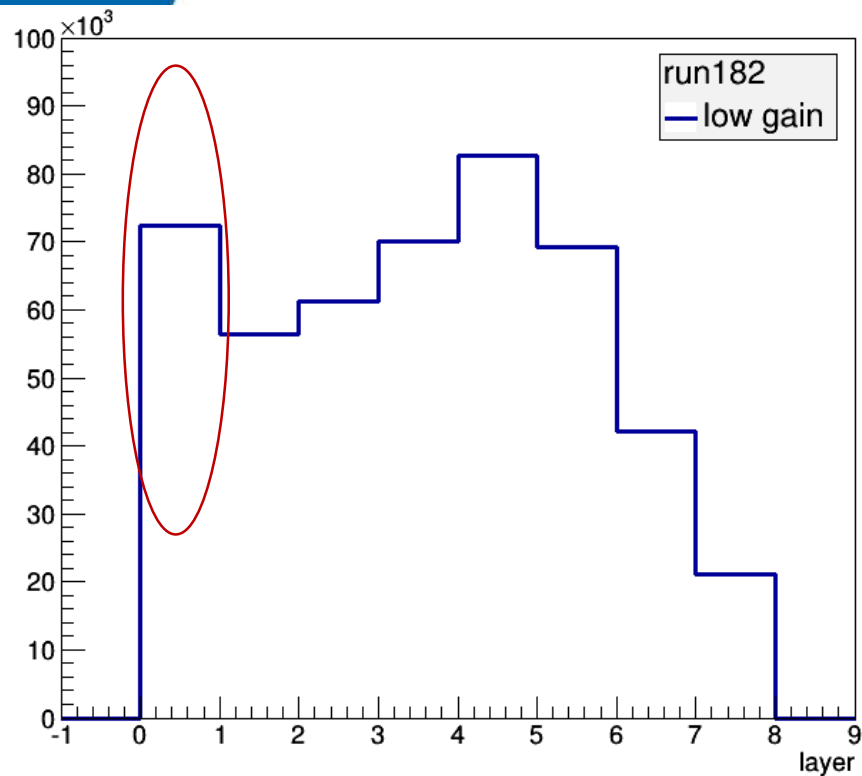
Run number	Energy beam [GeV]	Comments
74	5	tilted
182	5	energy scan
190	4	energy scan
194	3	energy scan
207	6	energy scan

Signal selection:

- $1 < \tau_{fit} < 3$
- $S_{max} < 2000 \text{ ADC}$
- $t_{1,bin} - 2,7 < t_{0,fit} < t_{1,bin} - 0,5$
- $NN_{output} > 0,98$

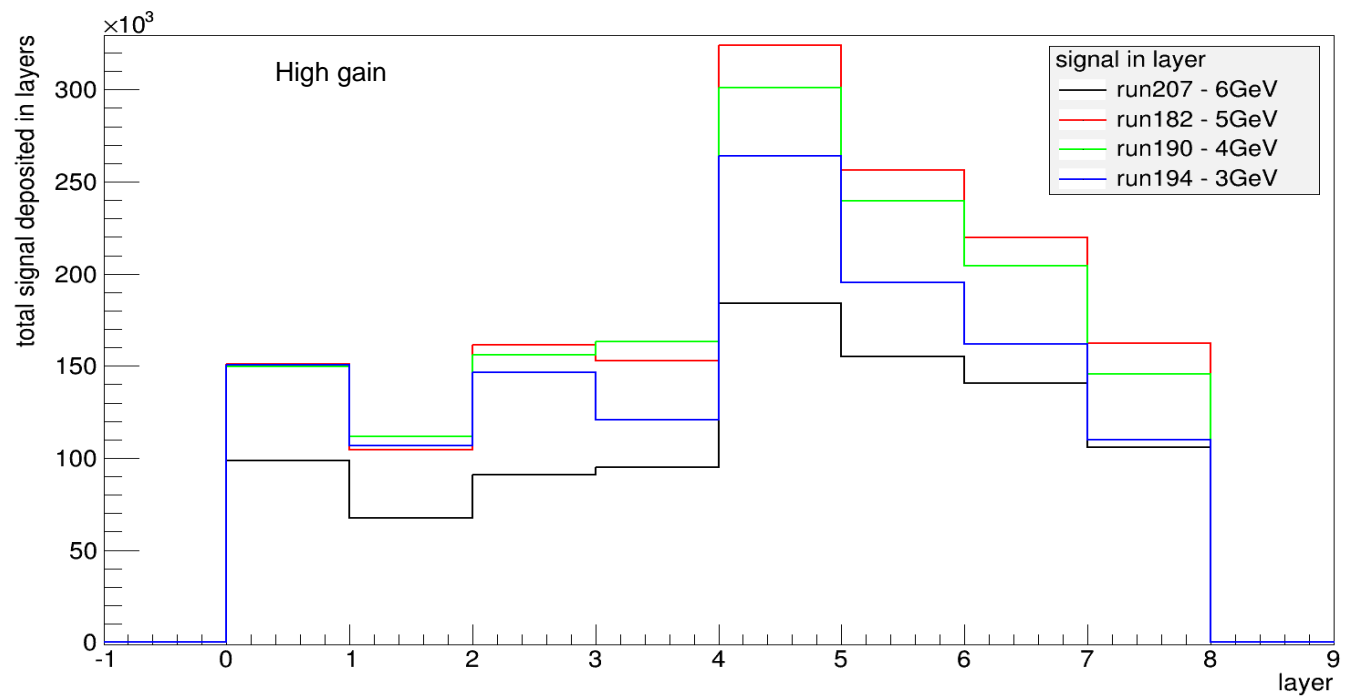
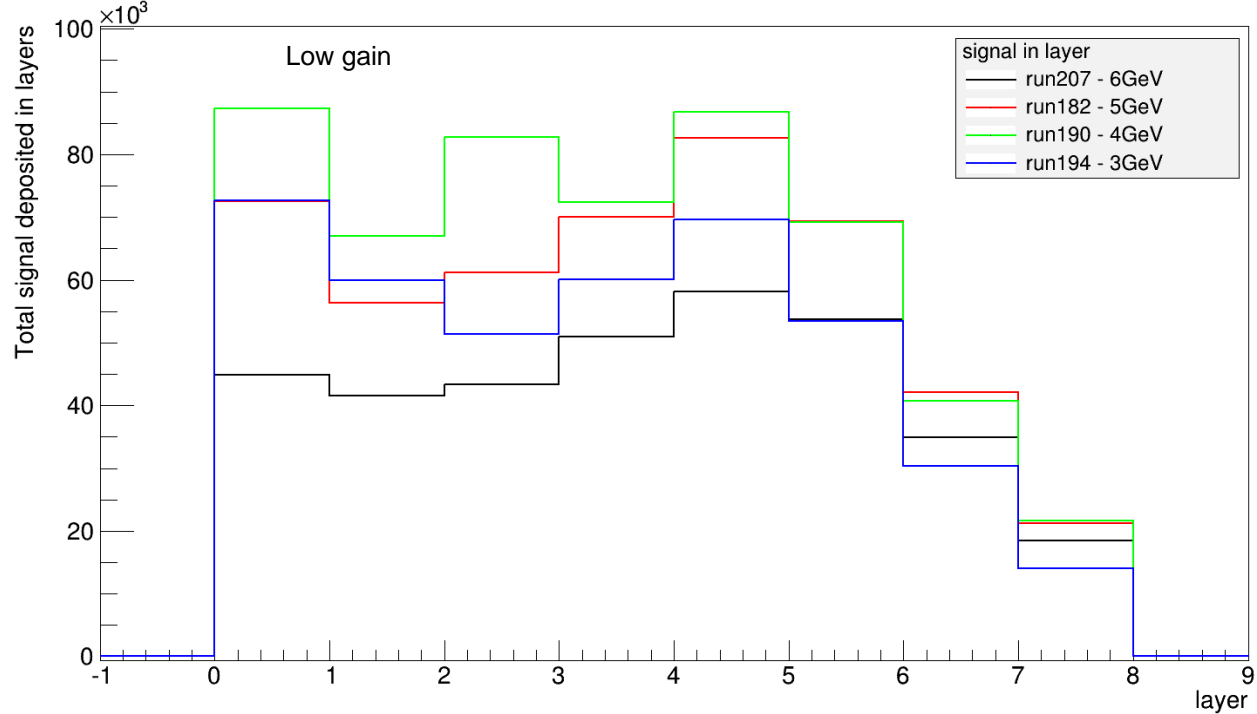


Signal in layers



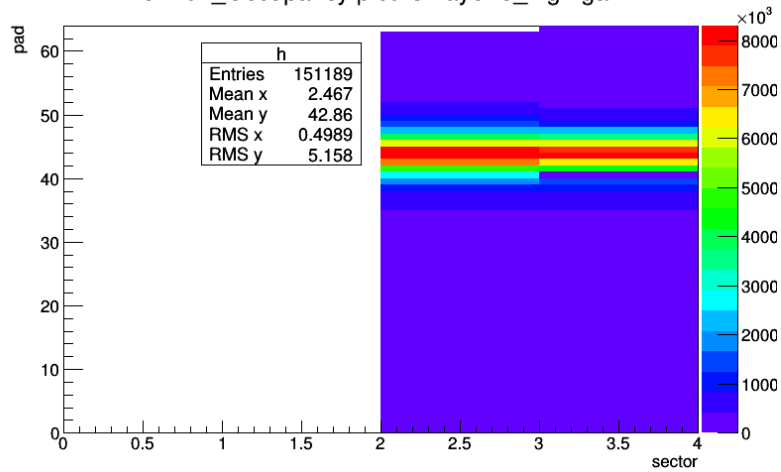
Strange signal deposition:

- to high in 1st plane for low gain
- to small in 2nd and 4th planes for high gain

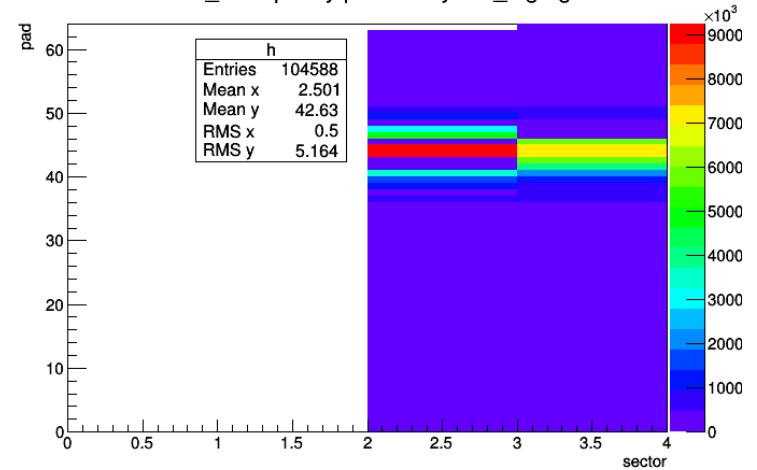


Occupancy – run 182

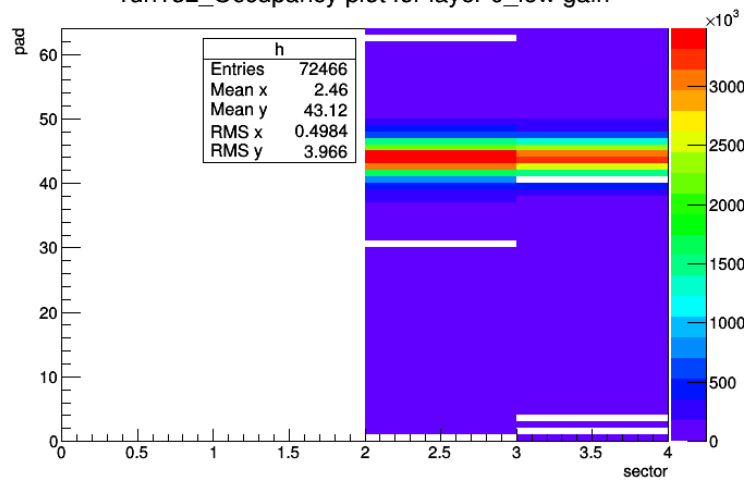
run182_Occupancy plot for layer 0_high gain



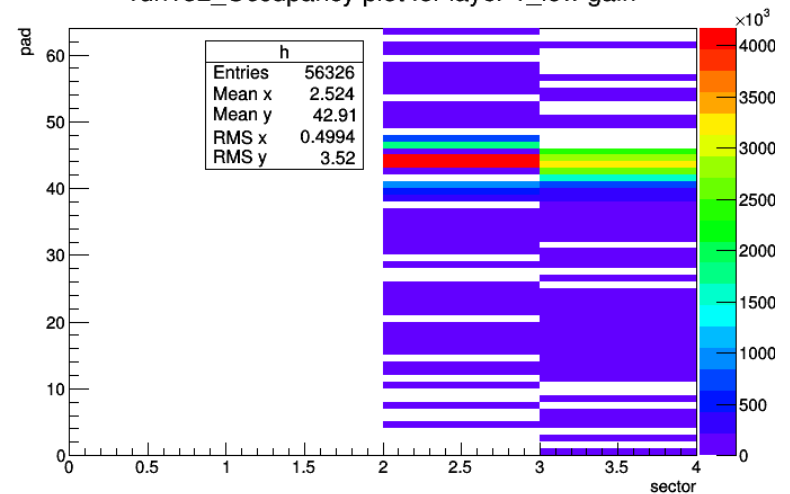
run182_Occupancy plot for layer 1_high gain



run182_Occupancy plot for layer 0_low gain

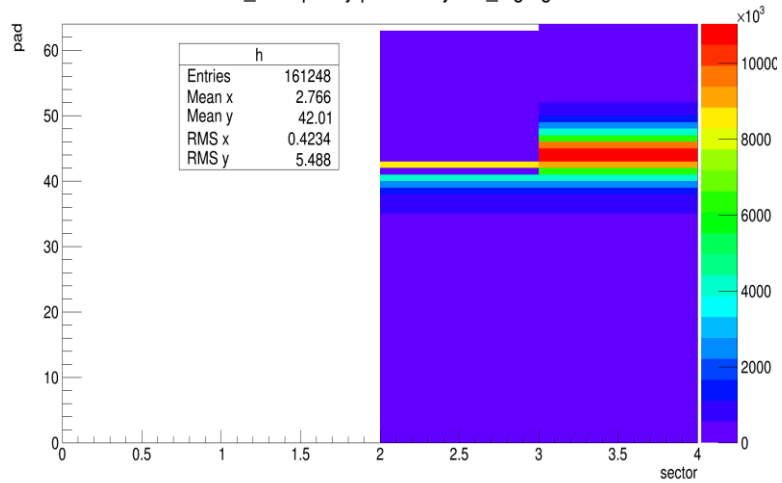


run182_Occupancy plot for layer 1_low gain

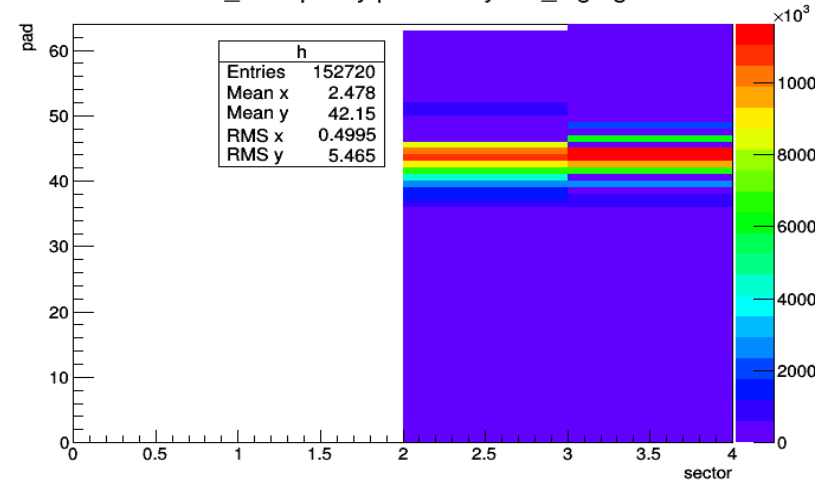


Occupancy – run 182

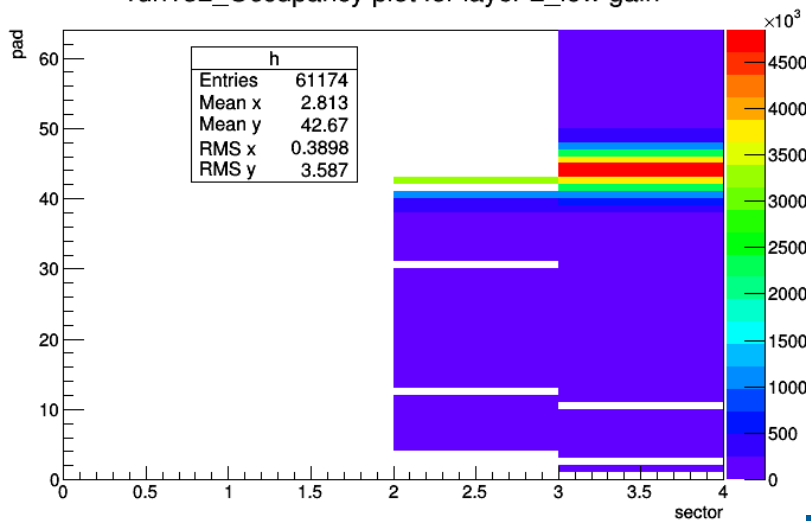
run182_Occupancy plot for layer 2_high gain



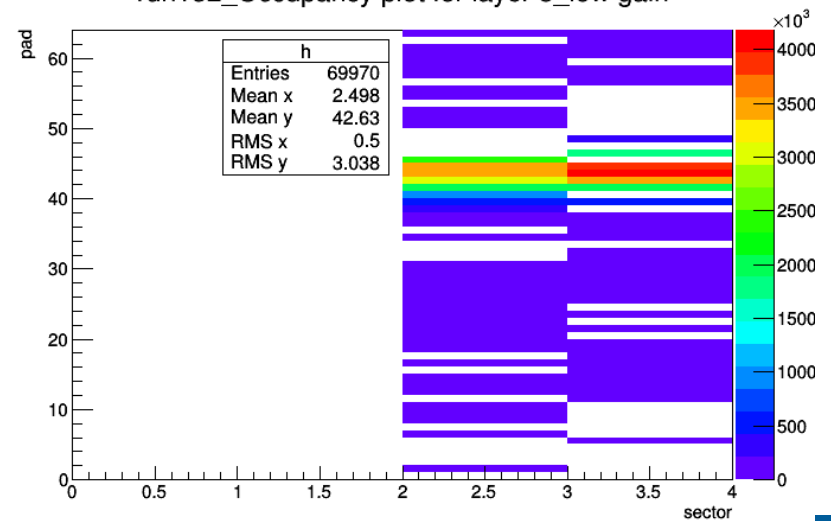
run182_Occupancy plot for layer 3_high gain



run182_Occupancy plot for layer 2_low gain

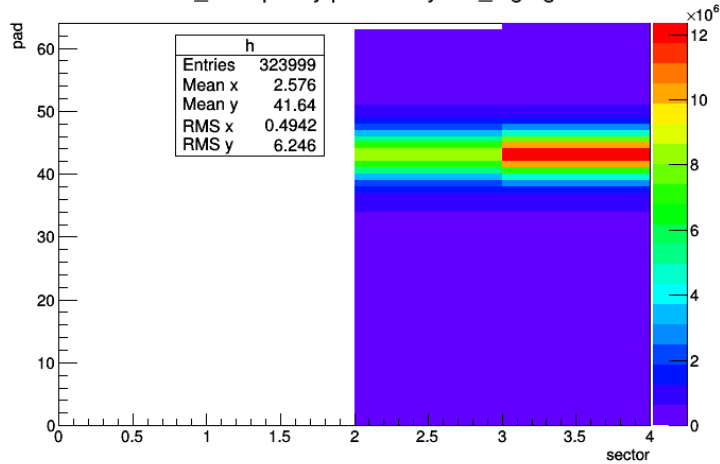


run182_Occupancy plot for layer 3_low gain

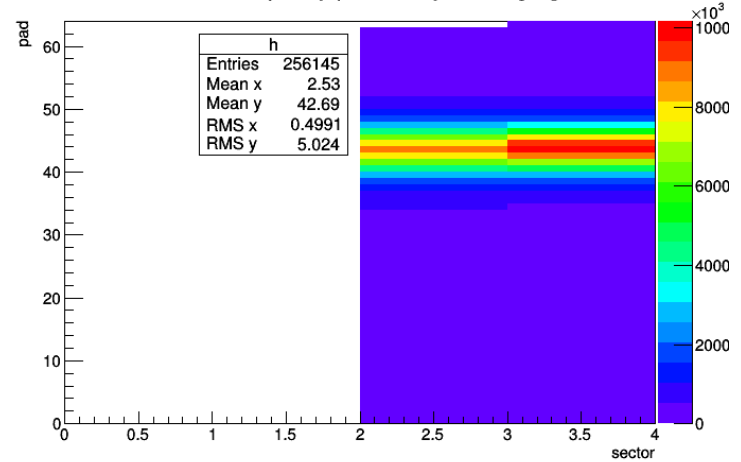


Occupancy – run 182

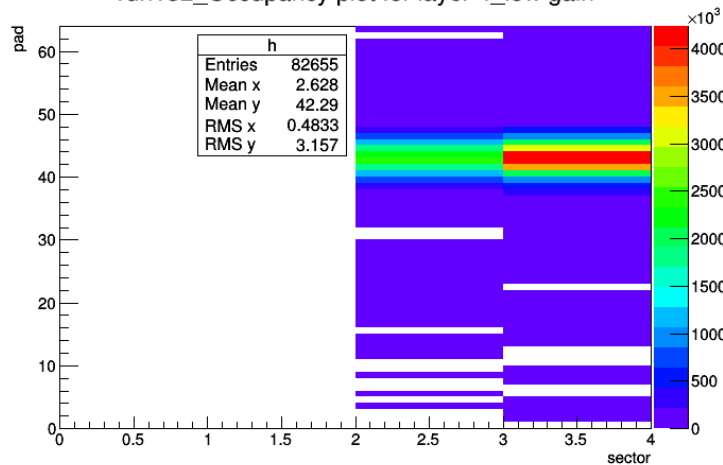
run182_Occupancy plot for layer 4_high gain



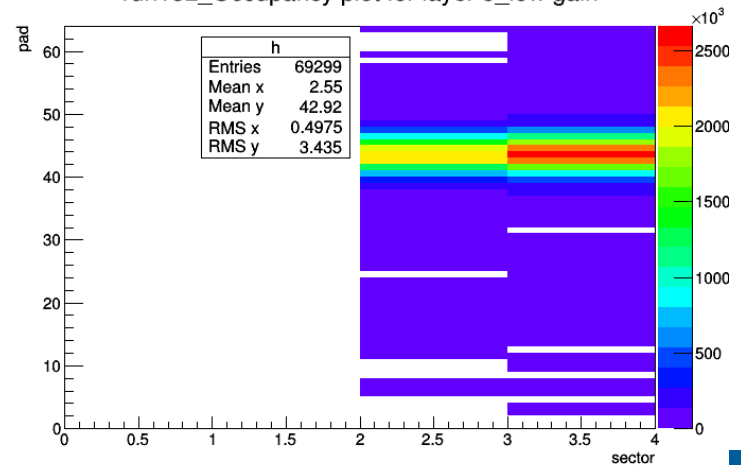
run182_Occupancy plot for layer 5_high gain



run182_Occupancy plot for layer 4_low gain

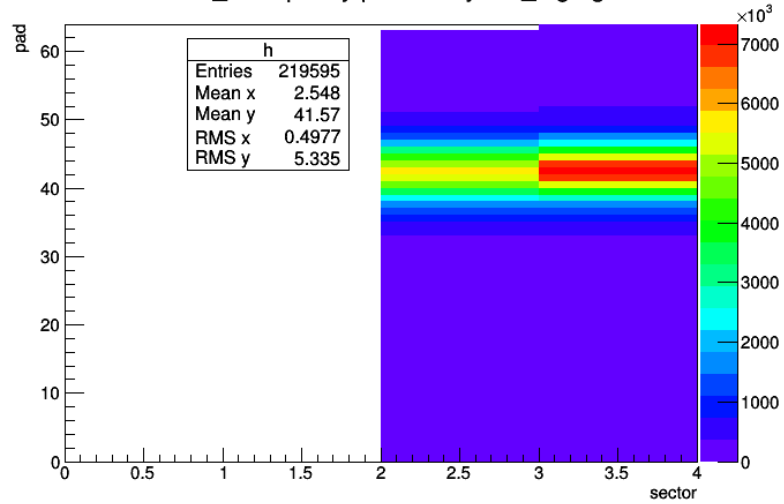


run182_Occupancy plot for layer 5_low gain

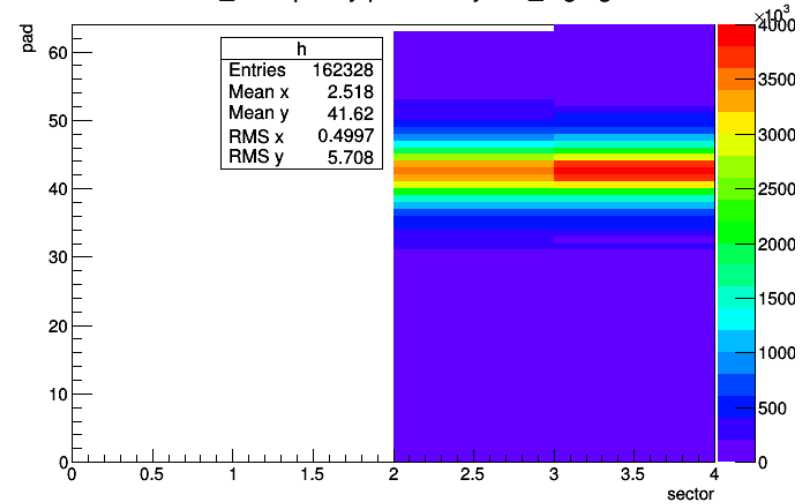


Occupancy – run 182

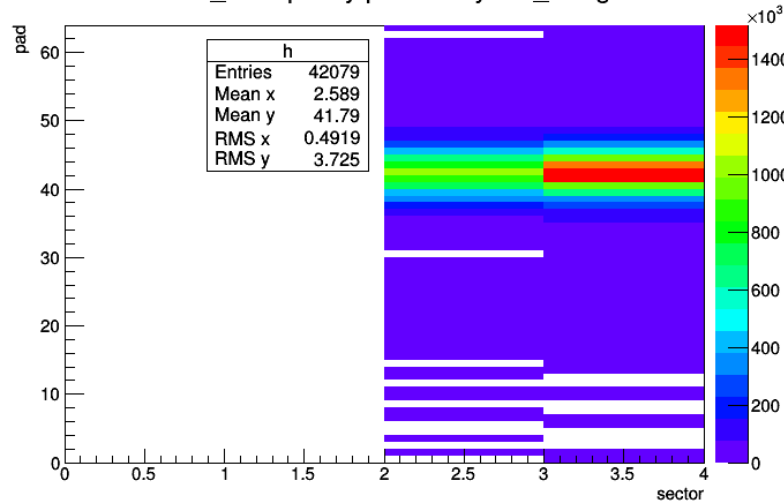
run182_Occupancy plot for layer 6_high gain



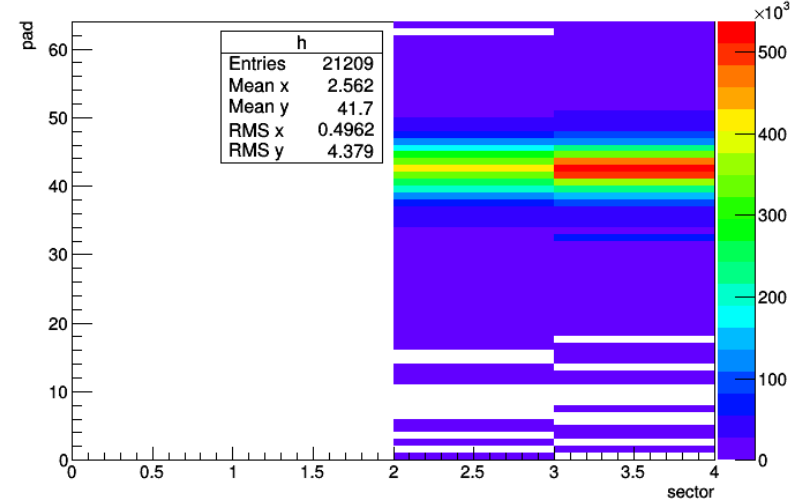
run182_Occupancy plot for layer 7_high gain



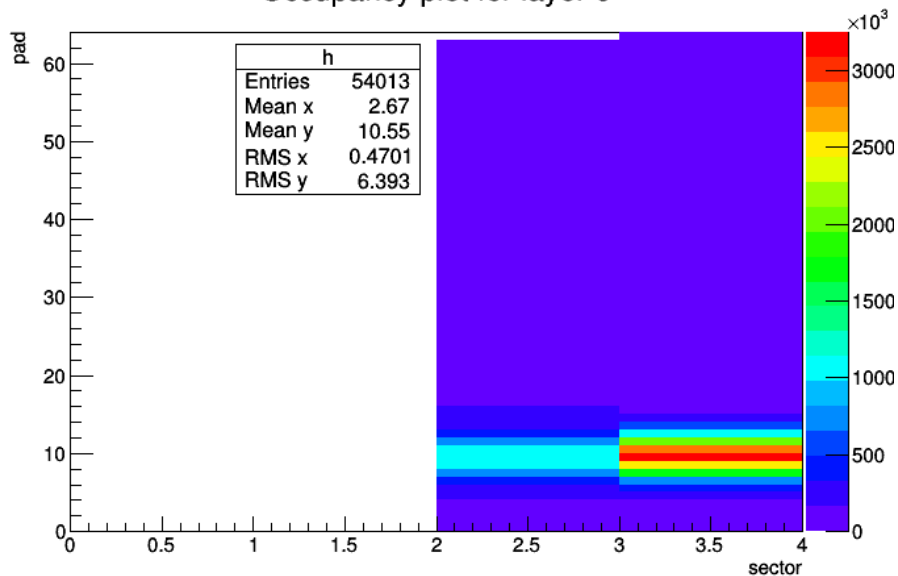
run182_Occupancy plot for layer 6_low gain



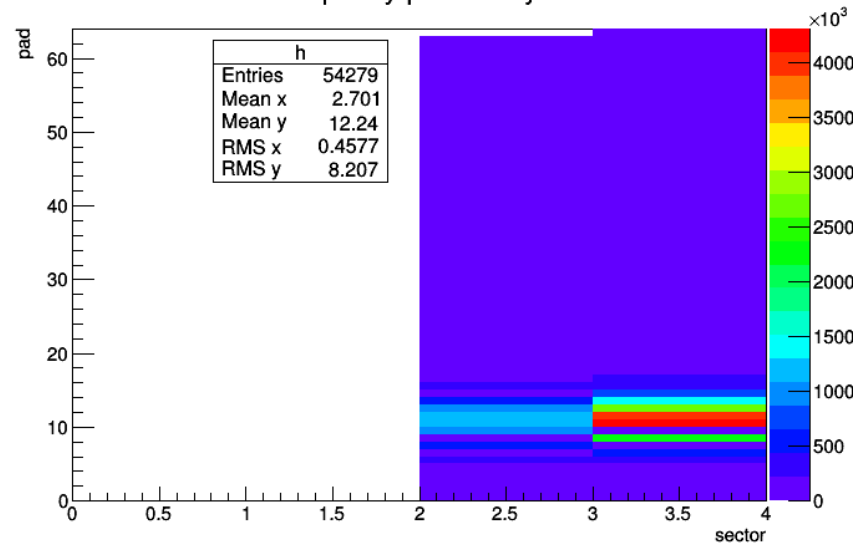
run182_Occupancy plot for layer 7_low gain



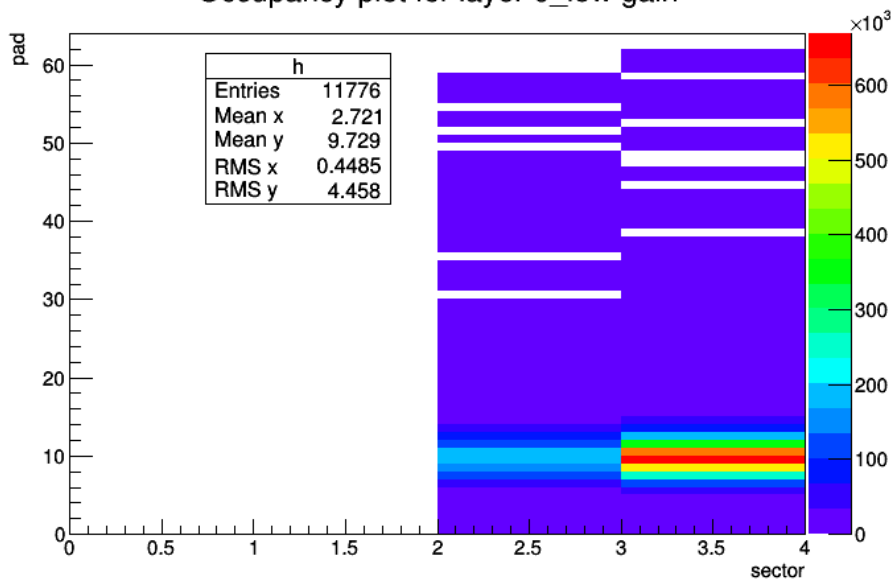
Occupancy plot for layer 0



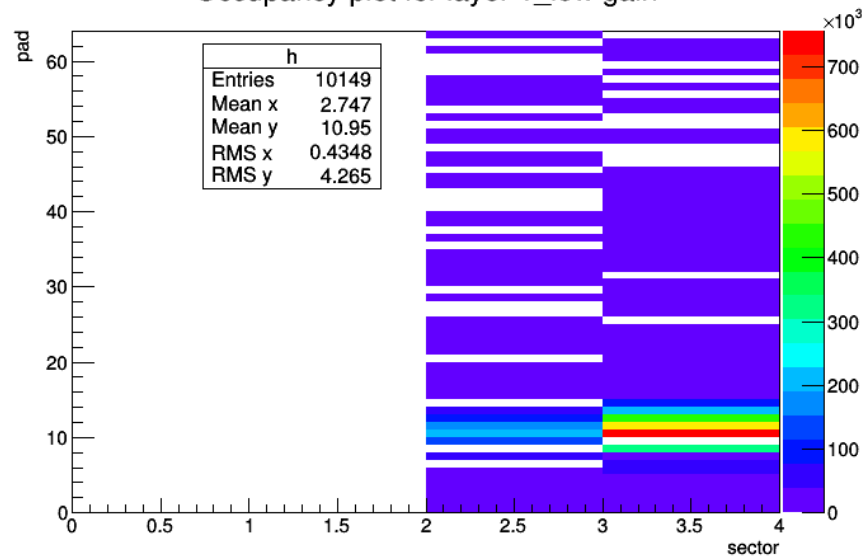
Occupancy plot for layer 1



Occupancy plot for layer 0_low gain

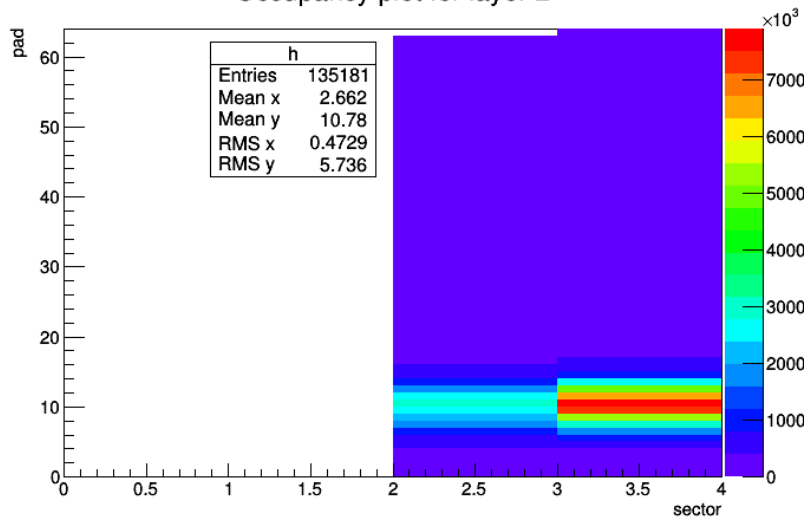


Occupancy plot for layer 1_low gain

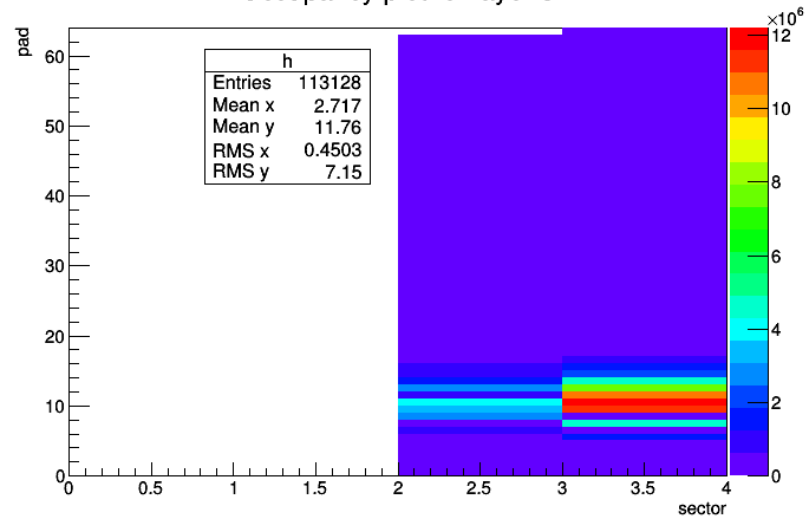


Occupancy – run 74

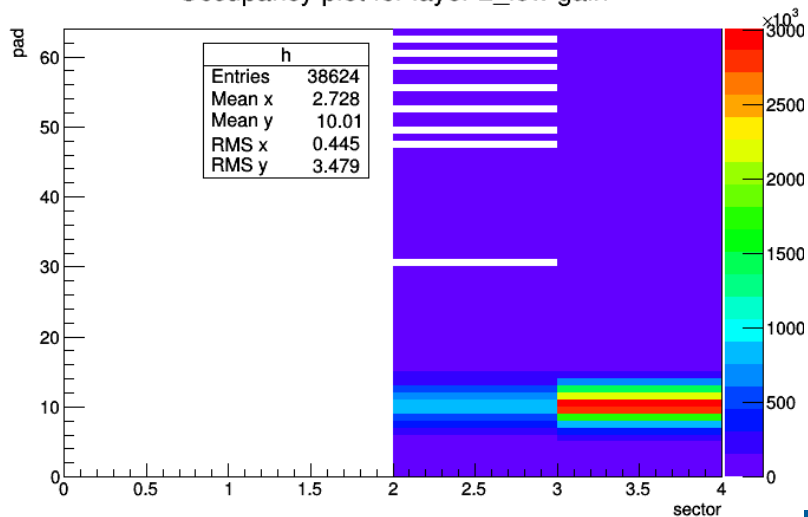
Occupancy plot for layer 2



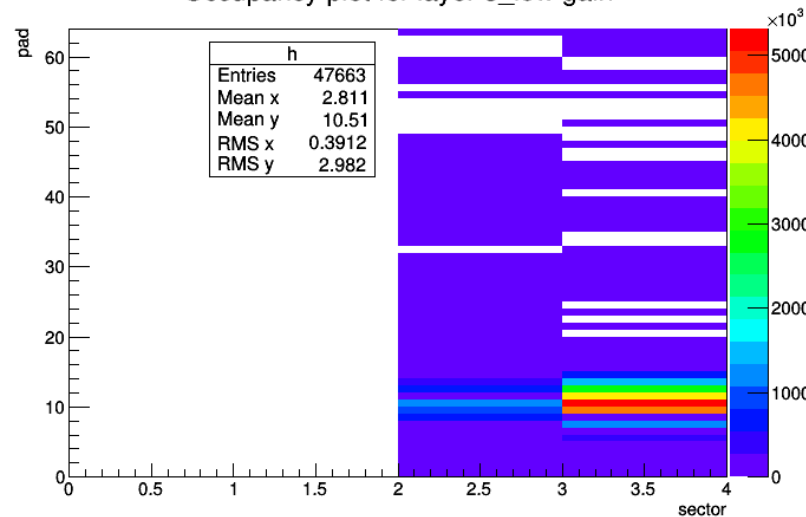
Occupancy plot for layer 3



Occupancy plot for layer 2_low gain

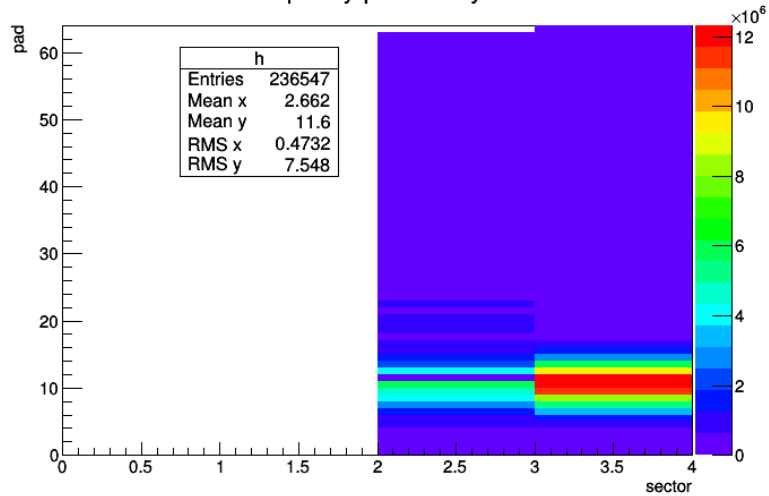


Occupancy plot for layer 3_low gain

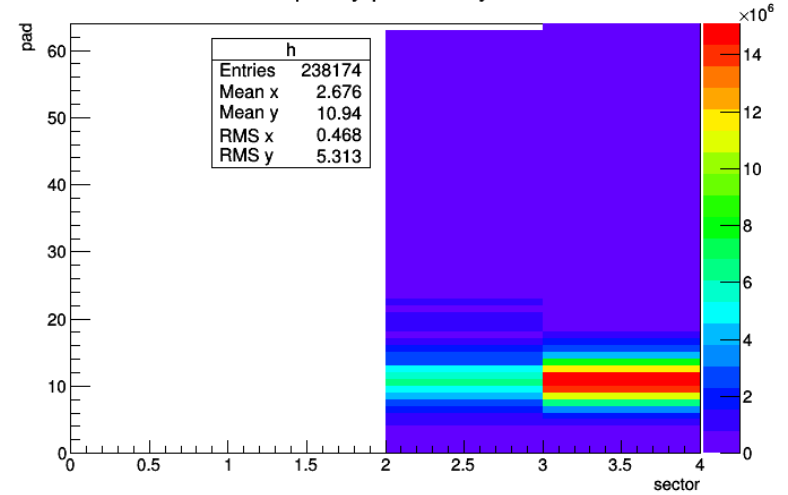


Occupancy – run 74

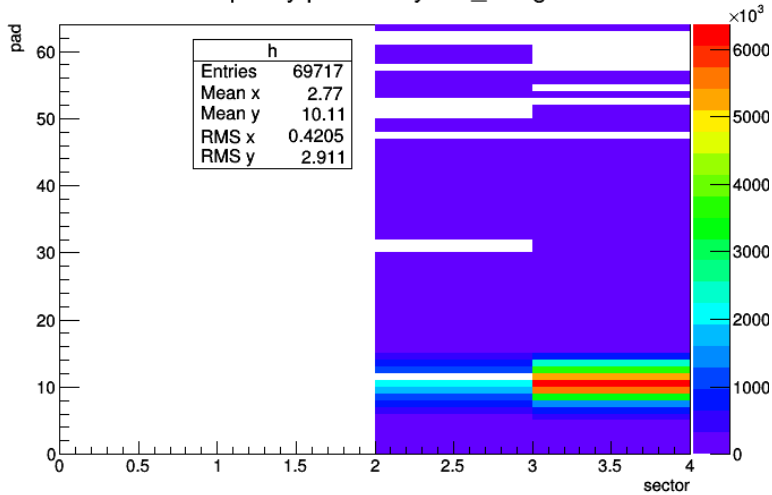
Occupancy plot for layer 4



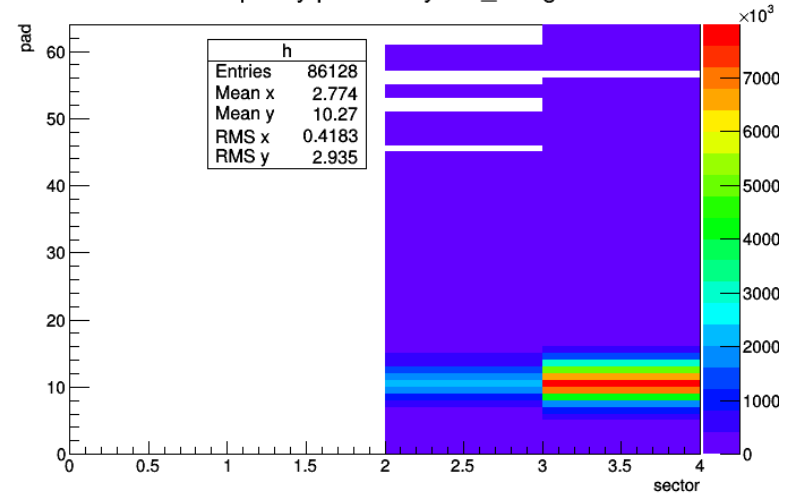
Occupancy plot for layer 5



Occupancy plot for layer 4_low gain

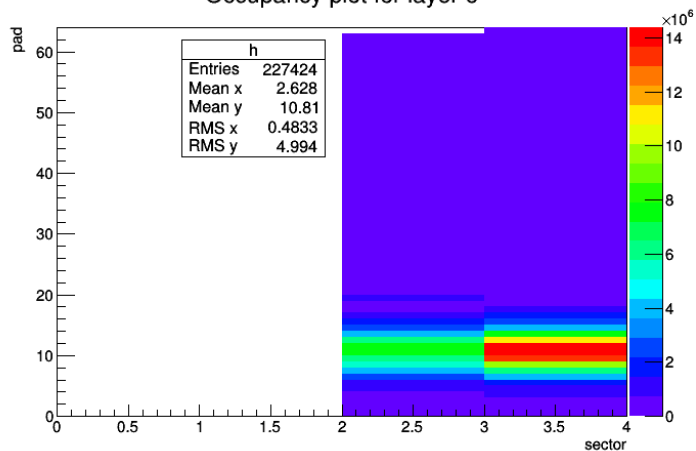


Occupancy plot for layer 5_low gain

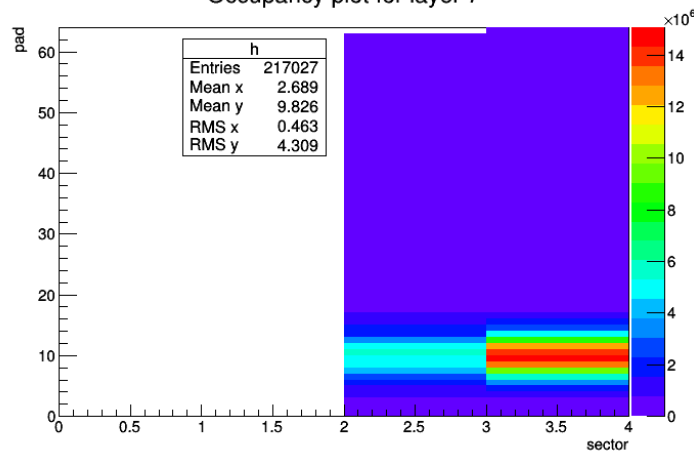


Occupancy – run 74

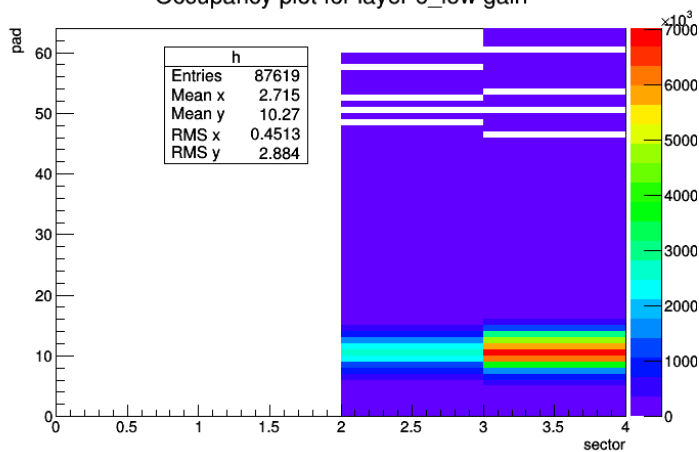
Occupancy plot for layer 6



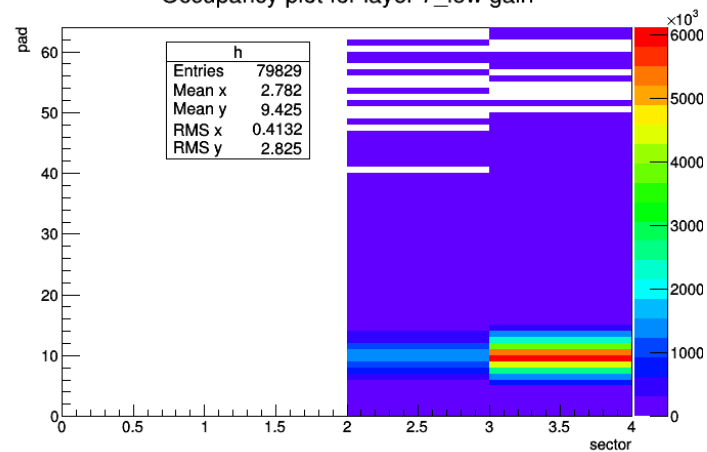
Occupancy plot for layer 7



Occupancy plot for layer 6_low gain



Occupancy plot for layer 7_low gain



Summary

- The parameters of the fit (t_0 , τ , n) with RC-CR response function should be optimized for signal analysis;