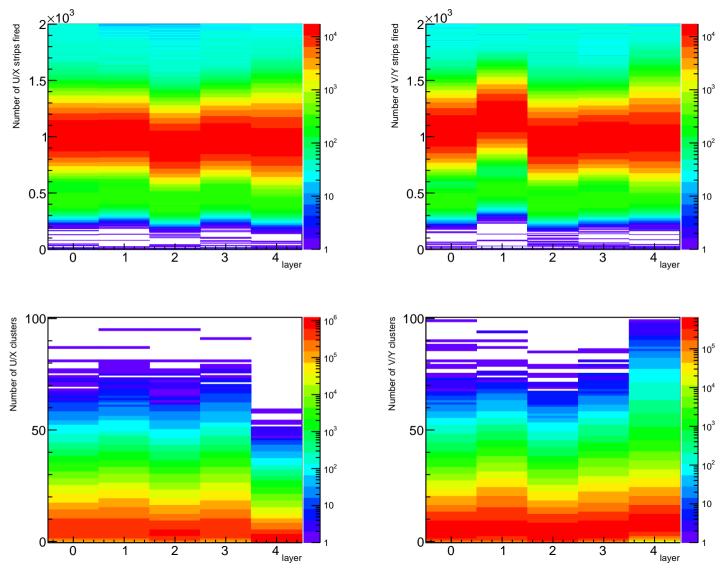
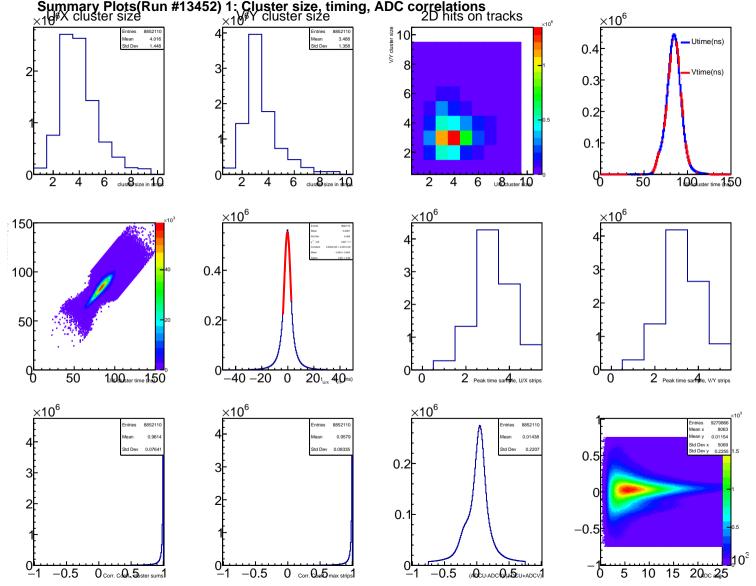
Summary Plots(Run #13452) 0: Strip and cluster multiplicities





Summary Plots(Run #13452) 2: Strip and cluster ADC distributions and correlations

×10<sup>3</sup>

×10<sup>3</sup>

Entries 8852110

| Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | Entries 8852110 | En  $\times 10^3$ 20 907.5 3801 8410 15 60 Std Dev 15 40 10 40 10 20 20 ADC cl210sum (U/X stri30) 2U/X max str3 max sample Max strip ADO sum (U/X strip 5 10 <u>×10</u><sup>3</sup>  $\times 10^3$ 60 60l 992.8 4158 15 Std Dev Std Dev Std Dev Std Dev 15h 40 40 10 10 20 20 Max strip ADO sum (V/Y strip1)5 ADC cl20sum (V/Y stri30 2 V/Y max st 3 max sample 2 10 5 § 30 × 10 3  $\times 10^3$  $\times 10^3$ Mean y 992.8 4061 Mean y Std Dev x 591.8 Std Dev x § 20 10 2x strip max3ample (U/X AD 20 Ster sum (U.30 Max strip ADC (U/X)

Summary Plots(Run #13452) 3: Tracking statistics  ${}_{\star}\times10^6$ Entries 6137230 Entries 2064543  $10^{6}$ Mean 0.3559 Mean 4.288 Mean 3.376 Std Dev 0.5004 Std Dev 0.7433 Std Dev 6.763 10<sup>5</sup> 10<sup>5</sup>  $10^{4}$ 0.5  $10^{3}$  $10^{4}$  $10^{2}$ 10  $10^{3}$ 2 10 20 30 track chi2/ndr 5 Best track  $\times 10^3$  $\times 10^3$ Entries 2064543 Entries 2064543 0.04695 Mean Mean -0.07533 40 30 Std Dev 0.278 Std Dev 0.07648 0.5 30 20 20 -0.510 10 **Q**<sub>6</sub>**5**<sub>rack X(z=0)</sub>**1**<sub>m</sub> -0.2 0.2 <sub>y(m)</sub> -0.5-0.20 Best 0ac2Y(z=0), m 0 0 Best track  $\times 10^3$ dx/dz 40 Entries 2064543 Entries 2064543 0.02753 -0.01411 Mean Mean 30 0.0811 Std Dev 0.02692 Std Dev 0.2 30 20 20 10 10 -0.20.2st track dx0z 4 -0.050.05 track dy 0.1 0.05 dy.Q.1 0

Summary Plots(Run #13452) 4: Tracking residuals (inclusive)
All hits ×10<sup>6</sup> <u>×10</u><sup>-3</sup> <u>×10<sup>-3</sup></u> Track u/x incl. residuals (m) Track u/x incl. residuals (m) 0.8 0.3 0.6 100 0.4 0.2 3 \_1 0 1 2 Track u/x incl. residuals (m) 4 layer 2 6 module All hits <u>×10</u><sup>6</sup> <u>×10</u><sup>-3</sup> Track v/y incl. residuals (m) Track v/y incl. residuals (m) 8.0 100 0.6 0.2 0.4 0.2 2 \_1 0 1 2 Track v/y incl. residuals (m) 0 2 3 4 layer 6

module

Summary Plots(Run #13452) 5: Tracking residuals (exclusive)
All hits <u>×10<sup>6</sup></u> ×10<sup>-3</sup> ×10<sup>-3</sup> Track u/x excl. residuals (m) Track u/x excl. residuals (m) 0.3 0.2 0.1 2 6 0 1 2 Track u/x excl. residuals (m) 2 3 4 layer 0 0 4 module All hits ×10<sup>-3</sup> ×10<sup>-3</sup> ×10<sup>6</sup> Track v/y excl. residuals (m) Track v/y excl. residuals (m) 0.3 0.2 0.1

3

4 layer

2

0

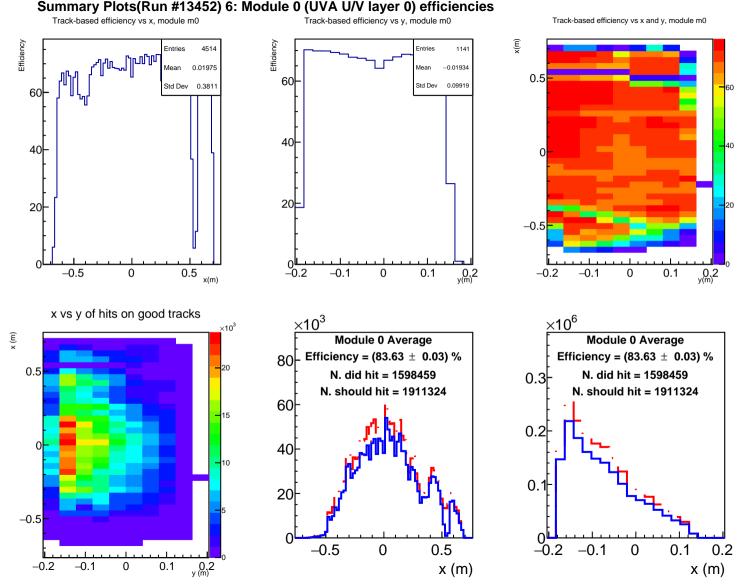
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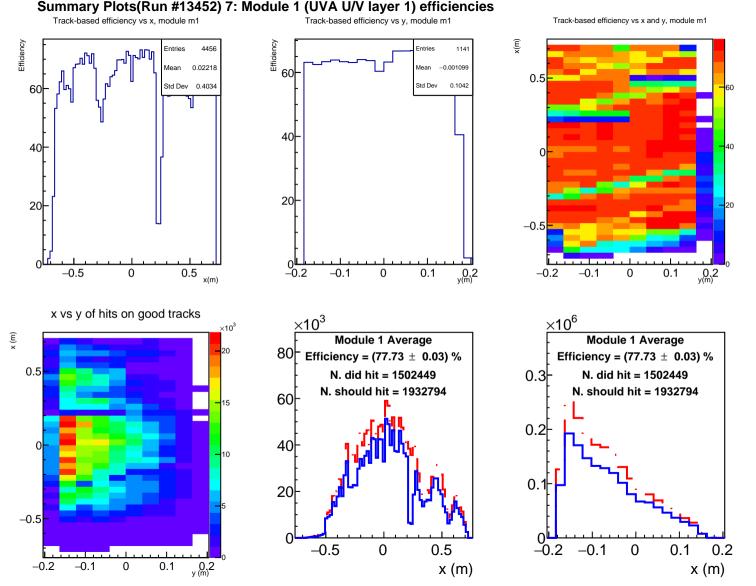
6

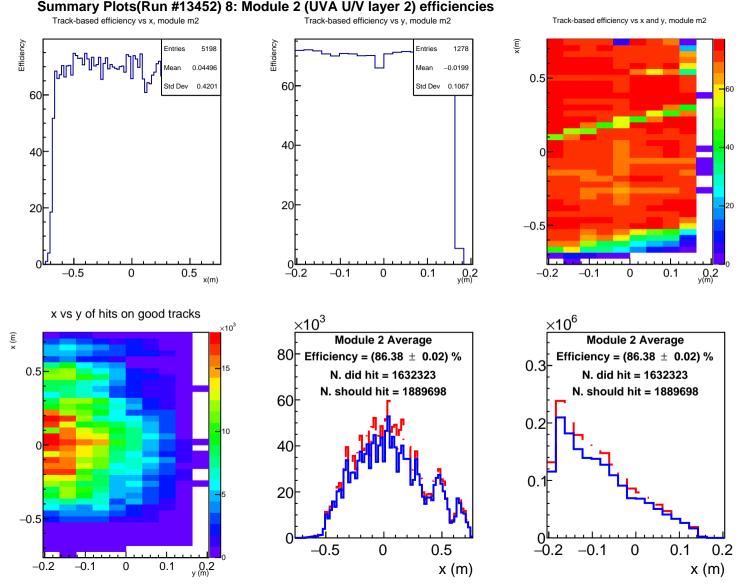
module

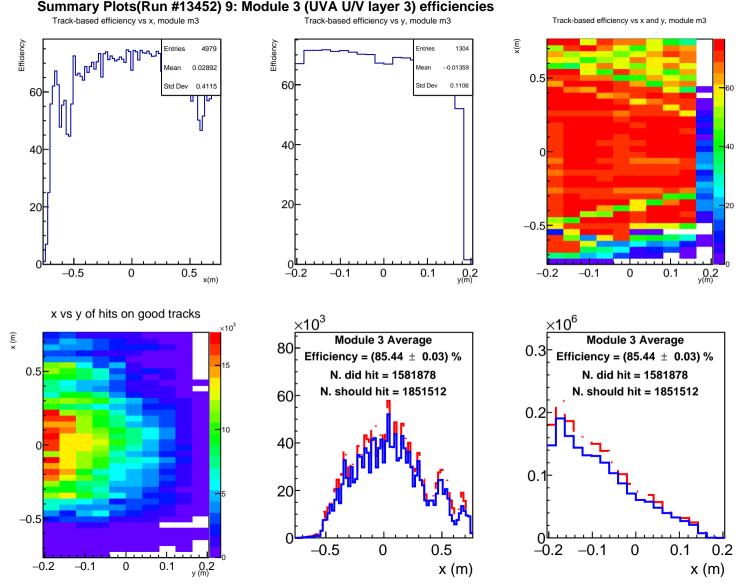
0 1 2 Track v/y excl. residuals (m)

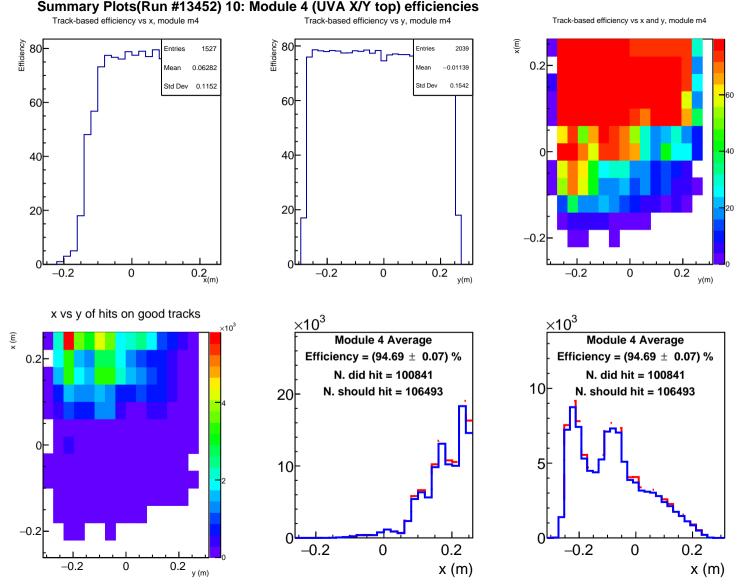
-2

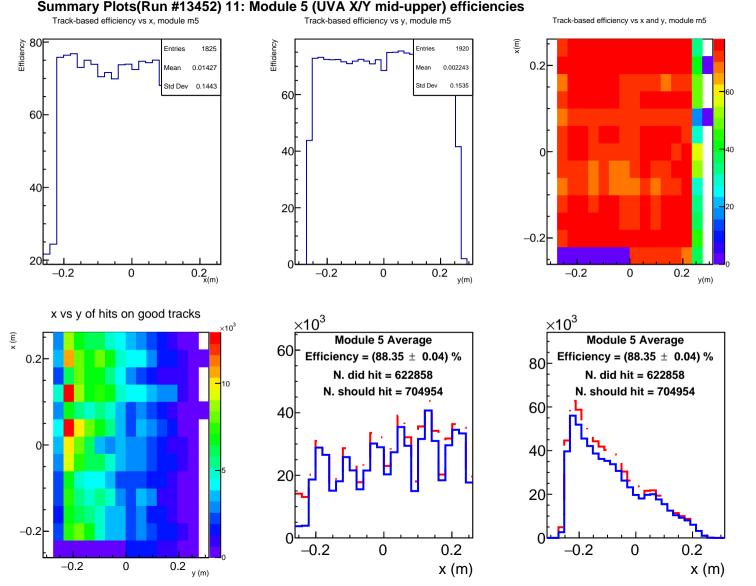


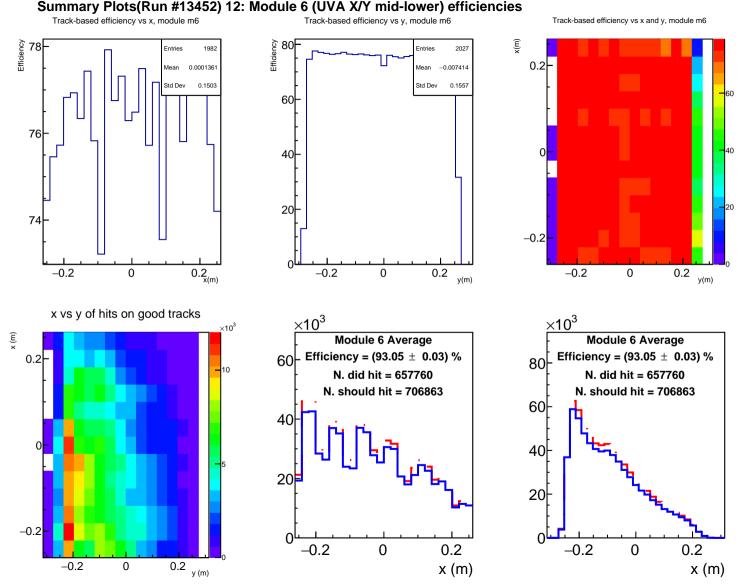


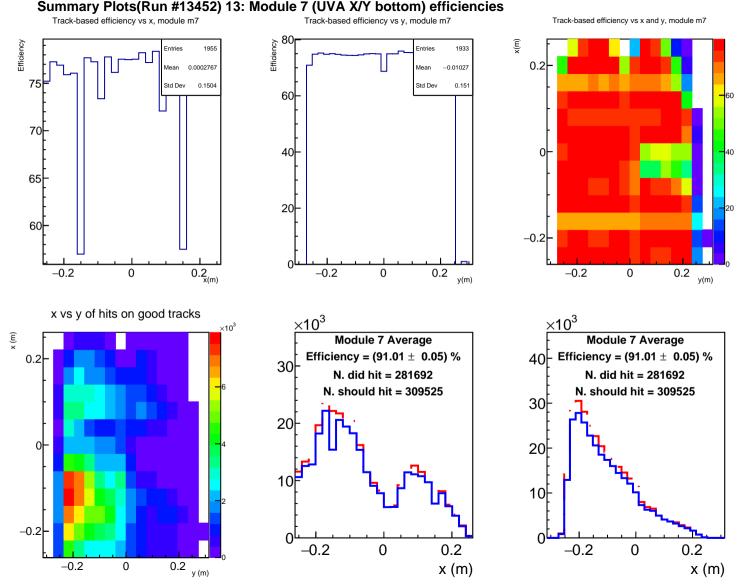












track-based efficiency vs x, y track-based efficiency vs x (m), averaged over y track-based efficiency vs y (m), averaged over x efficiency Ê efficiency Entries 4497 Entries ๛ในๅ๛ใ๛ไ๛ไฦฦฦ 0.0209 Mean -0.0194 60 0.382 Std Dev 0.09939 60 40 40 20 20 -0.5 0.2 -0.2 0.5 -0.1 0.1 -0.50.1 -0.2-0.10 0 0 x(m) x vs y of hits on good tracks (m)  $\times 10^3$  $\times 10^6$ ×10<sup>3</sup> Ē Layer 0 Average Layer 0 Average Efficiency = (83.63  $\pm$  0.03) % Efficiency = (83.63  $\pm$  0.03) % 80 0.5 20 N. did hit = 1598459 N. did hit = 1598459 0.3 N. should hit = 1911324 N. should hit = 1911324 60 0.2 40 0.1 20 -0.5 -0.5 0 0.5 -0.2-0.10 0.1 0.2 -0.2-0.10.1 x(m) y(m)

Summary Plots(Run #13452) 14: Layer 0 efficiencies

track-based efficiency vs x, y track-based efficiency vs x (m), averaged over y track-based efficiency vs y (m), averaged over x efficiency Ē efficiency Entries Entries Mean 0.02573 Mean -0.01754 Std Dev 0.4063 Std Dev 0.1054 60 40 20 20 -0.5 \_0.2 -0.1 0.1 -0.2 -0.50.5 -0.10.1 0 0 y(m) y(m) x vs y of hits on good tracks (m)  $\times 10^3$  $\times 10^6$ ×10<sup>3</sup> Layer 1 Average Layer 1 Average 80 - Efficiency = (77.73  $\pm$  0.03) % Efficiency =  $(77.73 \pm 0.03) \%$ 0.3 0.5 N. did hit = 1502449 N. did hit = 1502449 N. should hit = 1932794 N. should hit = 1932794 15 60 0.2 40 0.1 20 -0.50 0.5 0.1 -0.5-0.2 -0.10 -0.2 -0.10.1 x(m) y(m) y(m)

Summary Plots(Run #13452) 15: Layer 1 efficiencies

track-based efficiency vs x, y track-based efficiency vs x (m), averaged over y track-based efficiency vs y (m), averaged over x efficiency Œ, efficiency Entries 0.03481 -0.01764 0.5 60 Std Dev 0.1107 60 40 20 20 -0.5-0.1 -0.50.5 <del>-</del>0.2 0.1 -0.2-0.10.1 0 0 0 x(m) x vs y of hits on good tracks (m)  $\times 10^3$ ×10<sup>6</sup> ×10<sup>3</sup> Ē Layer 2 Average Layer 2 Average 0.3 Efficiency = (86.38 ± 0.02) % 80 Efficiency = (86.38  $\pm$  0.02) % 0.5 15 N. did hit = 1632323 N. did hit = 1632323 N. should hit = 1889698 N. should hit = 1889698 60 0. 40 0. 20 -0.5 0.5 0.1 0.2 -0.50 -0.2 -0.10 -0.2-0.1 0.1 x(m) y(m)

Summary Plots(Run #13452) 16: Layer 2 efficiencies

track-based efficiency vs x, y track-based efficiency vs x (m), averaged over y track-based efficiency vs y (m), averaged over x  $\left[ \frac{\left[ \left( V_{0} \right) \right]_{0} \left[ \left( V_{0} \right) \left[ \left( V_{0} \right) \right]_{0}}{\left[ \left( V_{0} \right) \left[ \left( V_{0} \right) \right]_{0}} \right]} \right]$ efficiency Ê efficiency Entries 0.01753 -0.01459 0.5 60 Std Dev 0.4108 Std Dev 0.1124 20 20 -0.5-0.1 0.2 y(m) -0.50.5 <del>-</del>0.2 0.1 -0.2-0.10.1 0 0 0 x(m) x vs y of hits on good tracks (m) <u>×1</u>0<sup>3</sup> ×10<sup>6</sup> ×10<sup>3</sup> Ē 80 Layer 3 Average Layer 3 Average 0.3 Efficiency = (85.44 ± 0.03) % Efficiency = (85.44  $\pm$  0.03) % 0.5 N. did hit = 1581878 N. did hit = 1581878 60 N. should hit = 1851512 N. should hit = 1851512 0.2 40 0. 20 -0.50.5 0.1 0.2 -0.50 -0.2 -0.10 -0.2-0.1 0.1 x(m) y(m)

Summary Plots(Run #13452) 17: Layer 3 efficiencies

track-based efficiency vs x, y track-based efficiency vs x (m), averaged over y track-based efficiency vs y (m), averaged over x efficiency 08 Ē efficiency 80 Entries Entries 0.07075 -0.01211 0.5591 Std Dev 0.1594 Std Dev 60 0.5 60 40 40 -0.520 20 0.5 -0.2 0.2 -0.2 0.2 -0.50 0 x vs y of hits on good tracks (m)  $\times 10^3$ ×10<sup>6</sup> ×10<sup>3</sup> Layer 4 Average Layer 4 Average Efficiency = (90.99  $\pm$  0.02) % Efficiency = (90.99  $\pm$  0.02) % 60 0.2 N. did hit = 1663151 N. did hit = 1663151 10 0.5 N. should hit = 1827835 N. should hit = 1827835 0.15 40 0.1 20 0.05 -0.5 -0.5 0.5 -0.2 0.2 0 0 -0.20.2 x(m) y(m) y(m)

Summary Plots(Run #13452) 18: Layer 4 efficiencies

## Summary Plots(Run #13452) 19: Module average efficiencies

