

A_T Optics Update

Previously

- Derived the following expressions for the lab angles

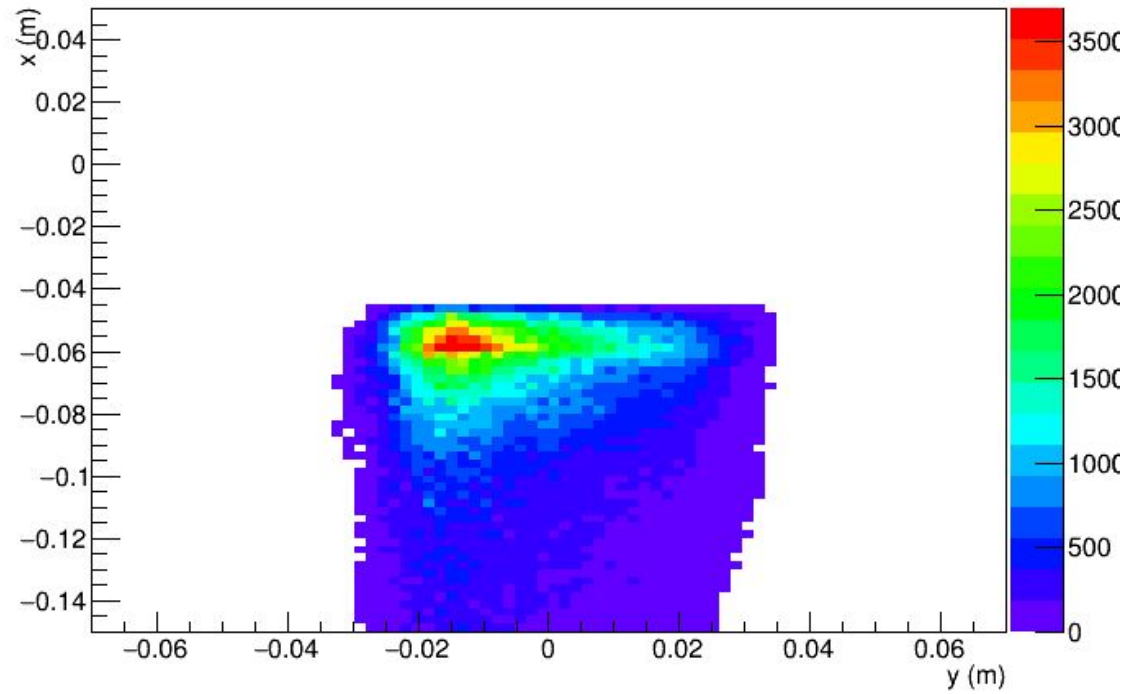
$$\cos \theta = (\cos \theta_o - \varphi_{tg} \sin \theta_o) / (1 + \theta_{tg}^2 + \varphi_{tg}^2)^{1/2}$$

$$\varphi = \tan^{-1} (- \theta_{tg} / \varphi_{tg} \cos \theta_o + \sin \theta_o)$$

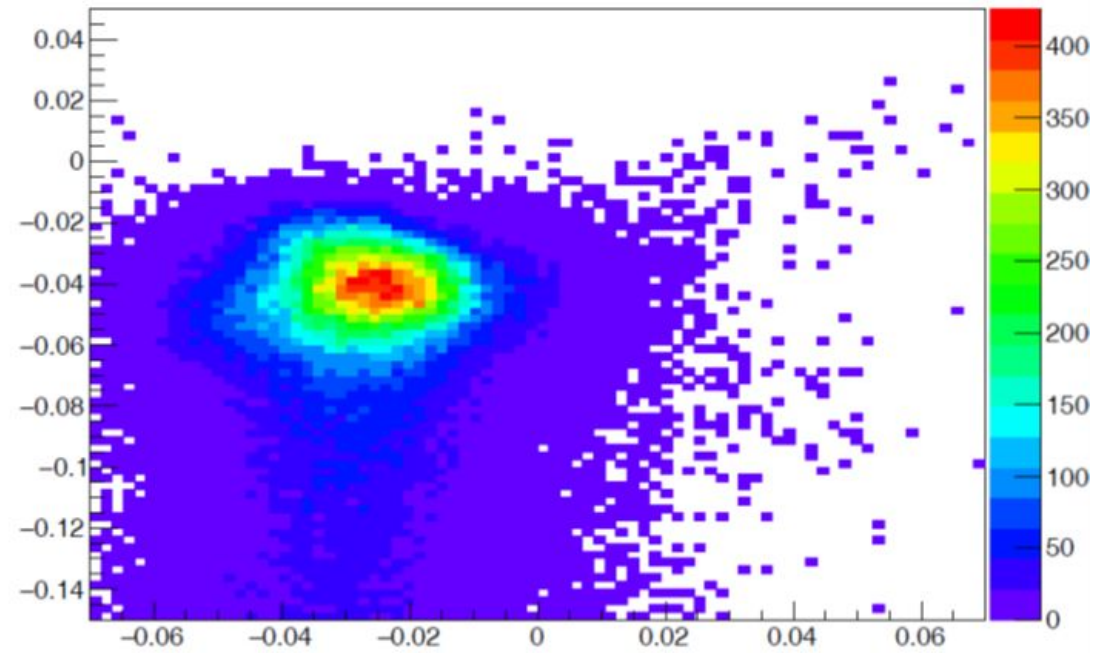
- Were used to derive cross section and Jacobian which will be carried as a weight for our plots
- Looking for central values of the BPM positions

A_T Plots

$z = 1.0\text{m}$ Downstream Focal Plane

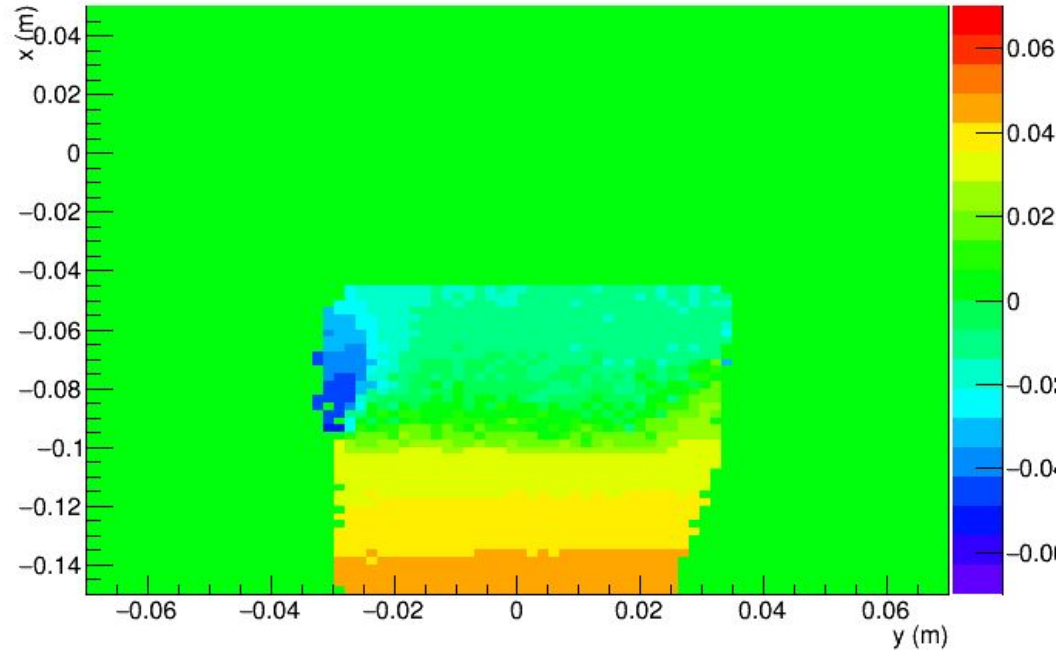


Rate, z from VDC = 2.0 m

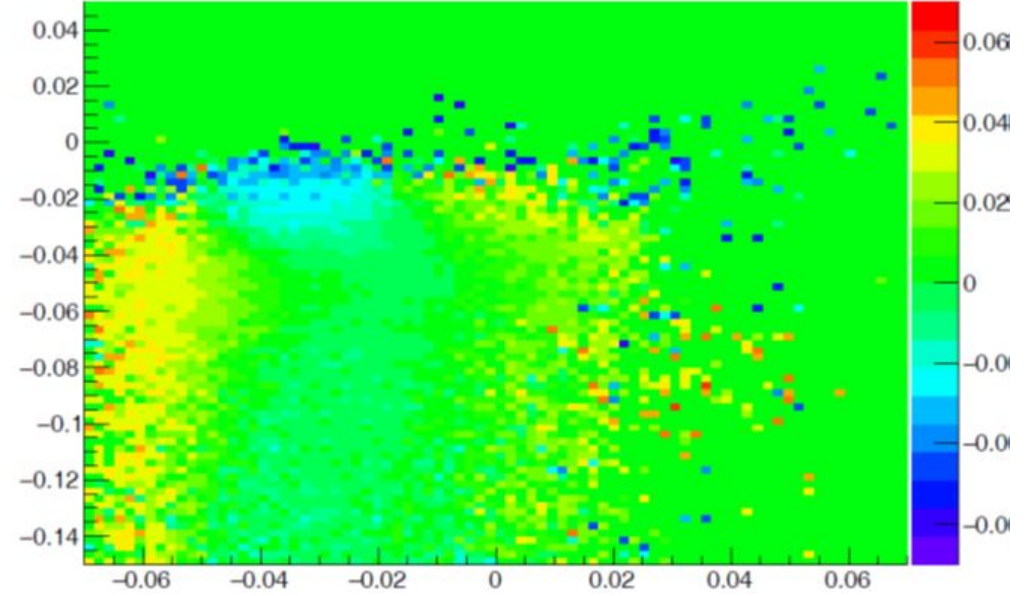


A_T Plots

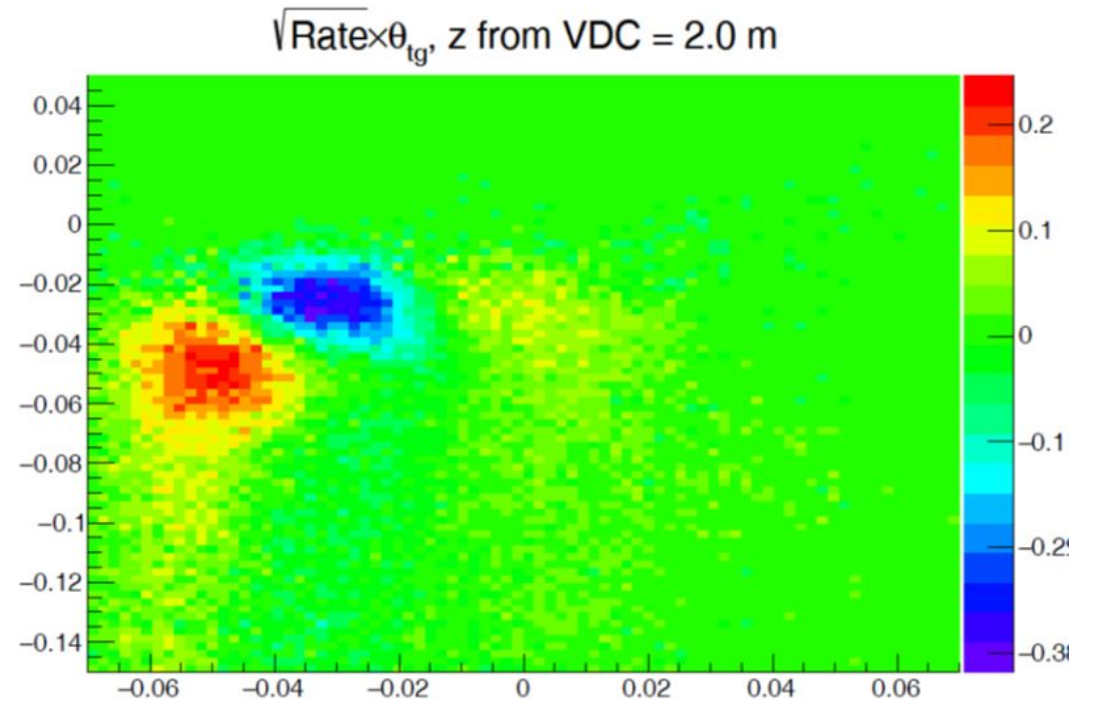
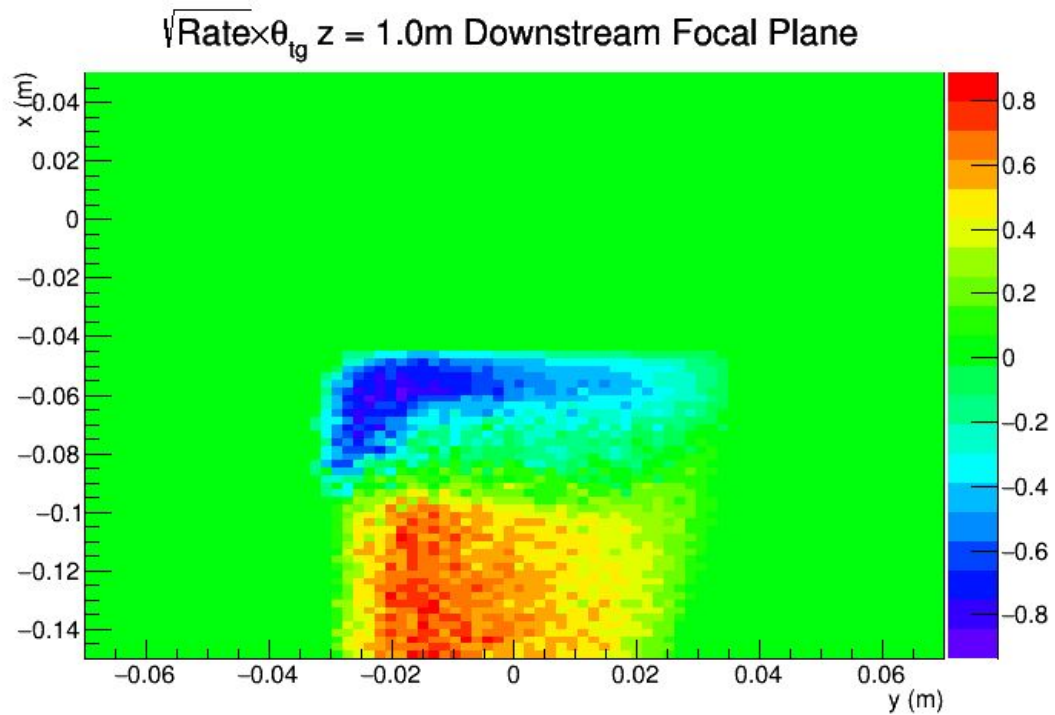
$\langle \theta_{tg} \rangle$ $z = 1.0$ Downstream Focal Plane



$\langle \theta_{tg} \rangle$, z from VDC = 2.0 m



A_T Plots



BPM Positions

Run Number	Comment	BPMA.XPOS	BPMA.YPOS	BPMB.XPOS	BPMB.YPOS
27412 (current 0.5)	Spot Check(No Target)	-0.0367491	0.280214	-0.0404017	0.974841
27427 (current 0.05)	Sieve Out/ Lead Diamond Target	0	0	0	0
27428 (current 0.5)	Spot Check (No target)	-0.0248617	0.2189595	-0.102949	1.20861
27119 (current 0.5)	Sieve In/Super thin Carbon 12 (BPM at (0,0))	0.1598886	0.0253923	0..0796082	0.0304588
27120 (current 0.5)	Sieve In/Super thin Carbon 12 (BPM at (0,0))	0.0881368	-0.0146237	0.0215824	0.0280935
27118 (current 0.5)	Sieve In/Super thin Carbon 12 (BPM at (0,0))	0.0186223	-0.0398863	-0.0597374	-0.0173224