

CDC ArCO2 Study in Aug. 2024

to check its feasibility

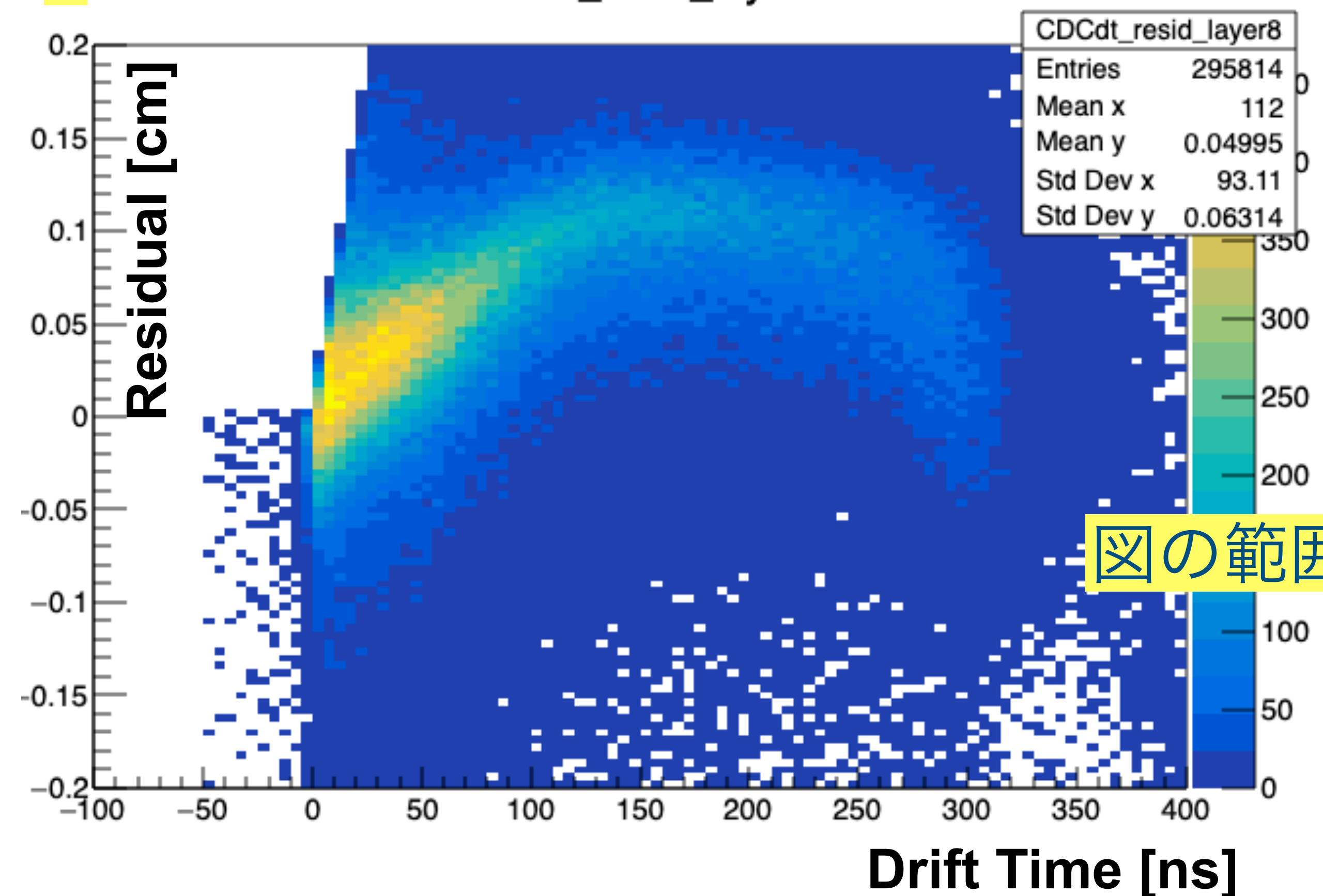
3

Iterating the XT parameters
(to plot “eff vs HV and resid vs HV”)

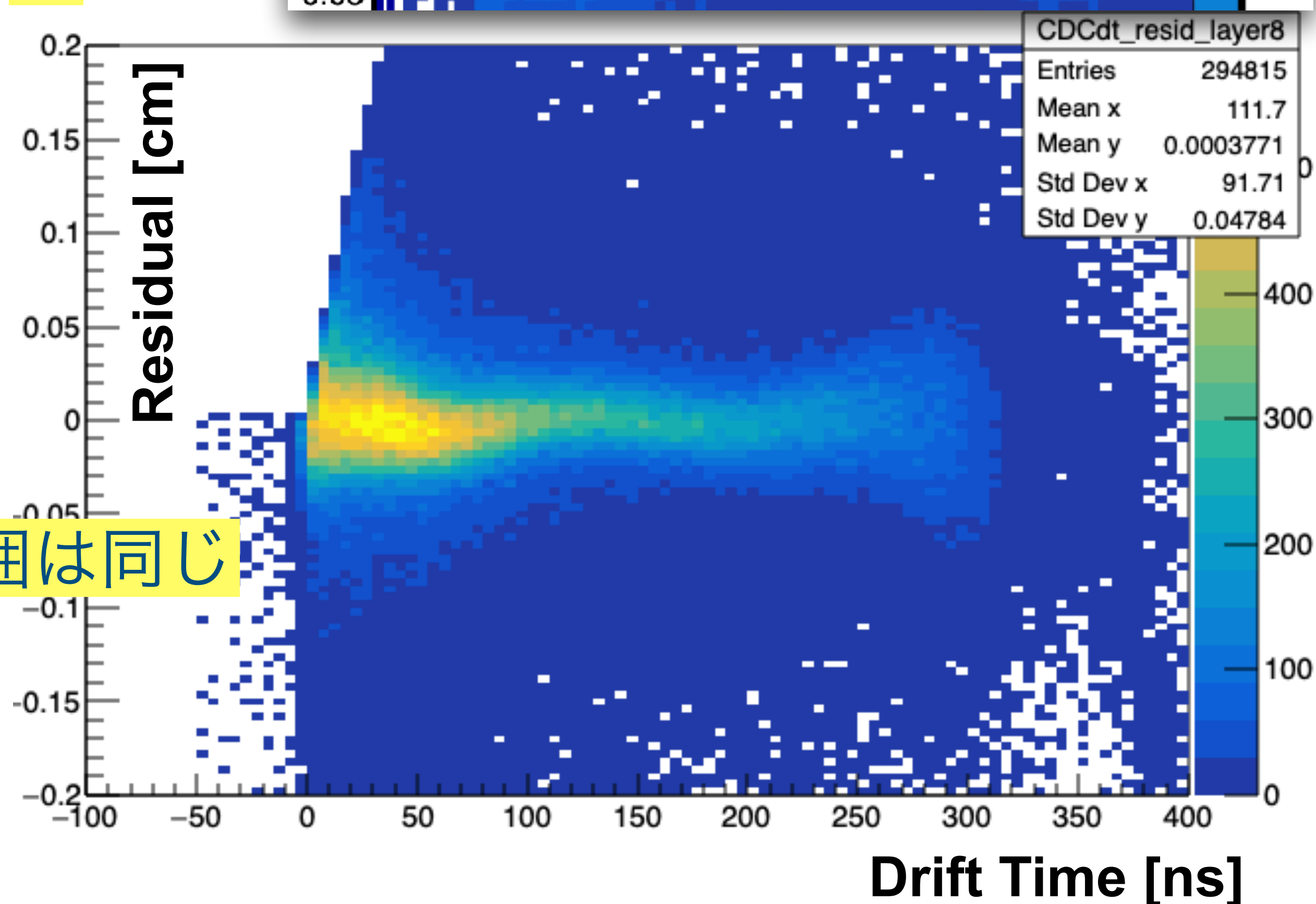
Drift Time vs Rresidual, 2350 V (Run 44)

- How to iterate; $pol5_{n+1} = pol5_n - 0.9 \times pol5_n^{corr}$
- 50,000 events

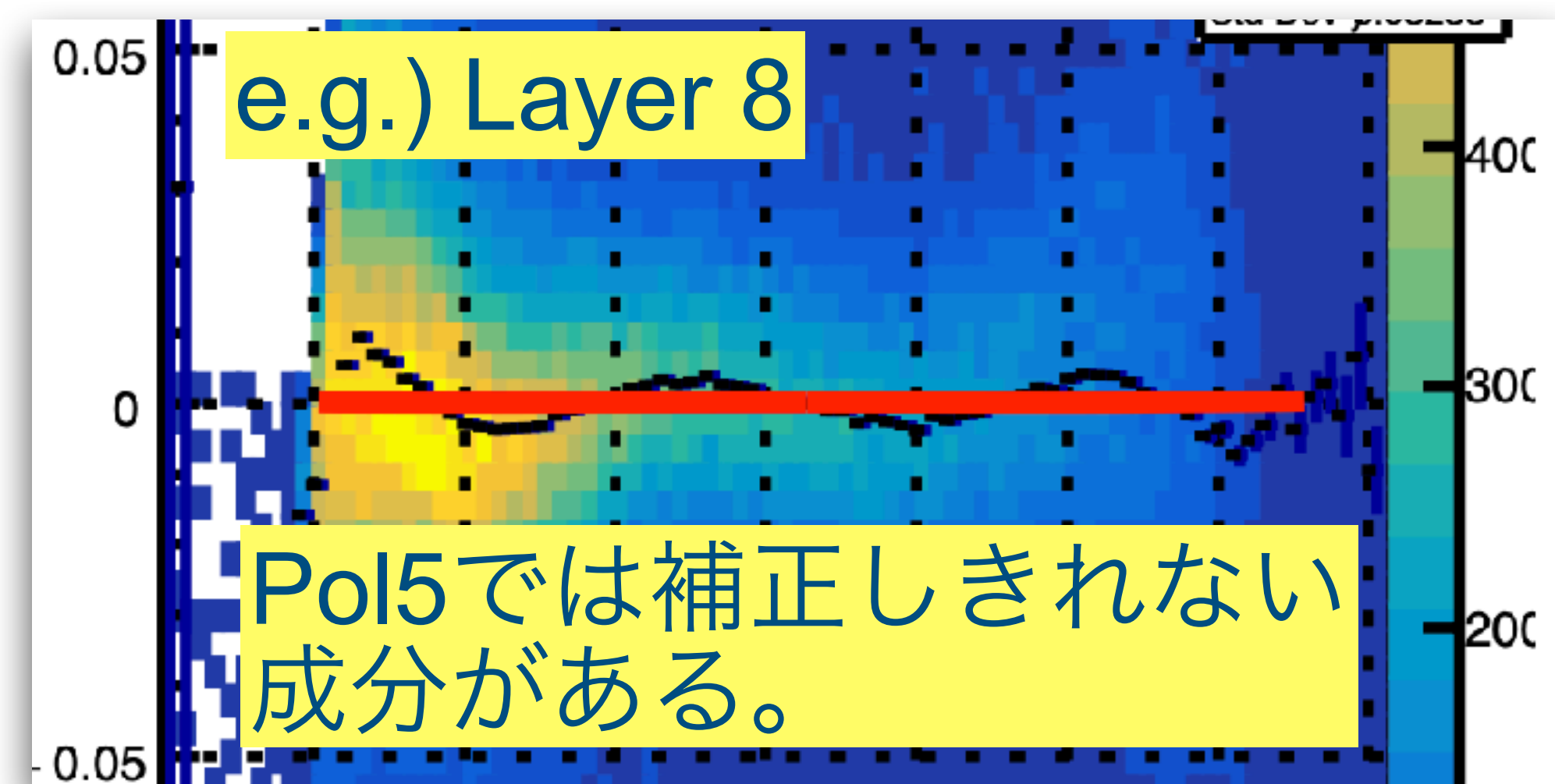
0 CDCdt_resid_layer8



10



図の範囲は同じ

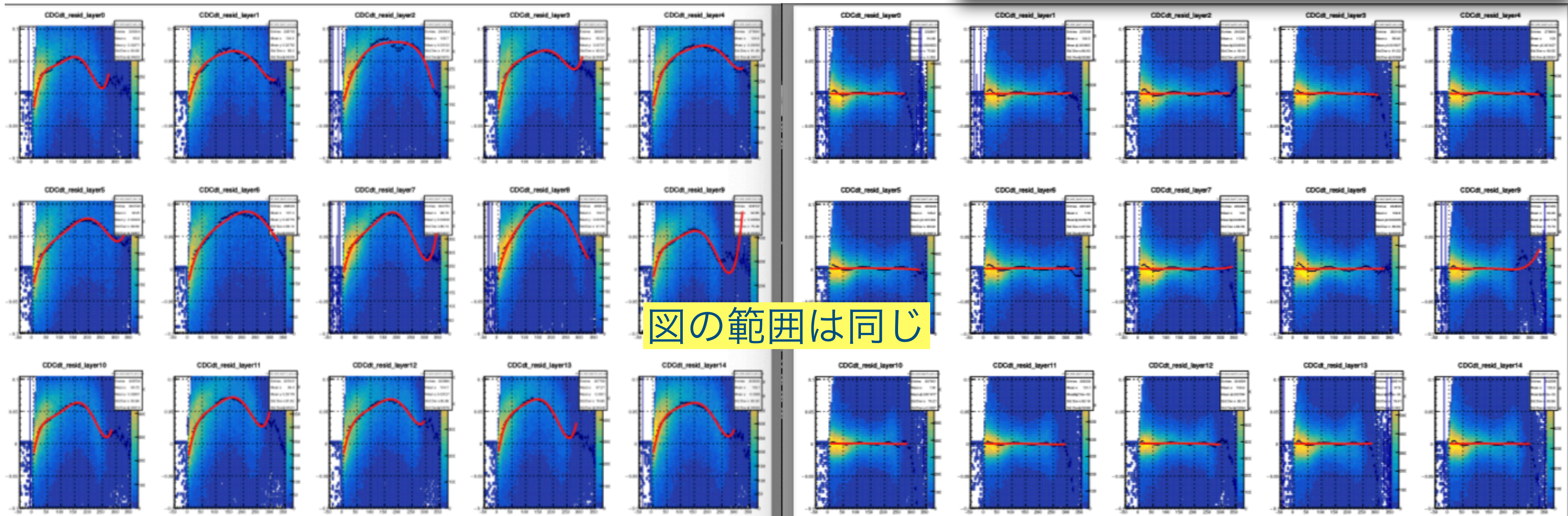
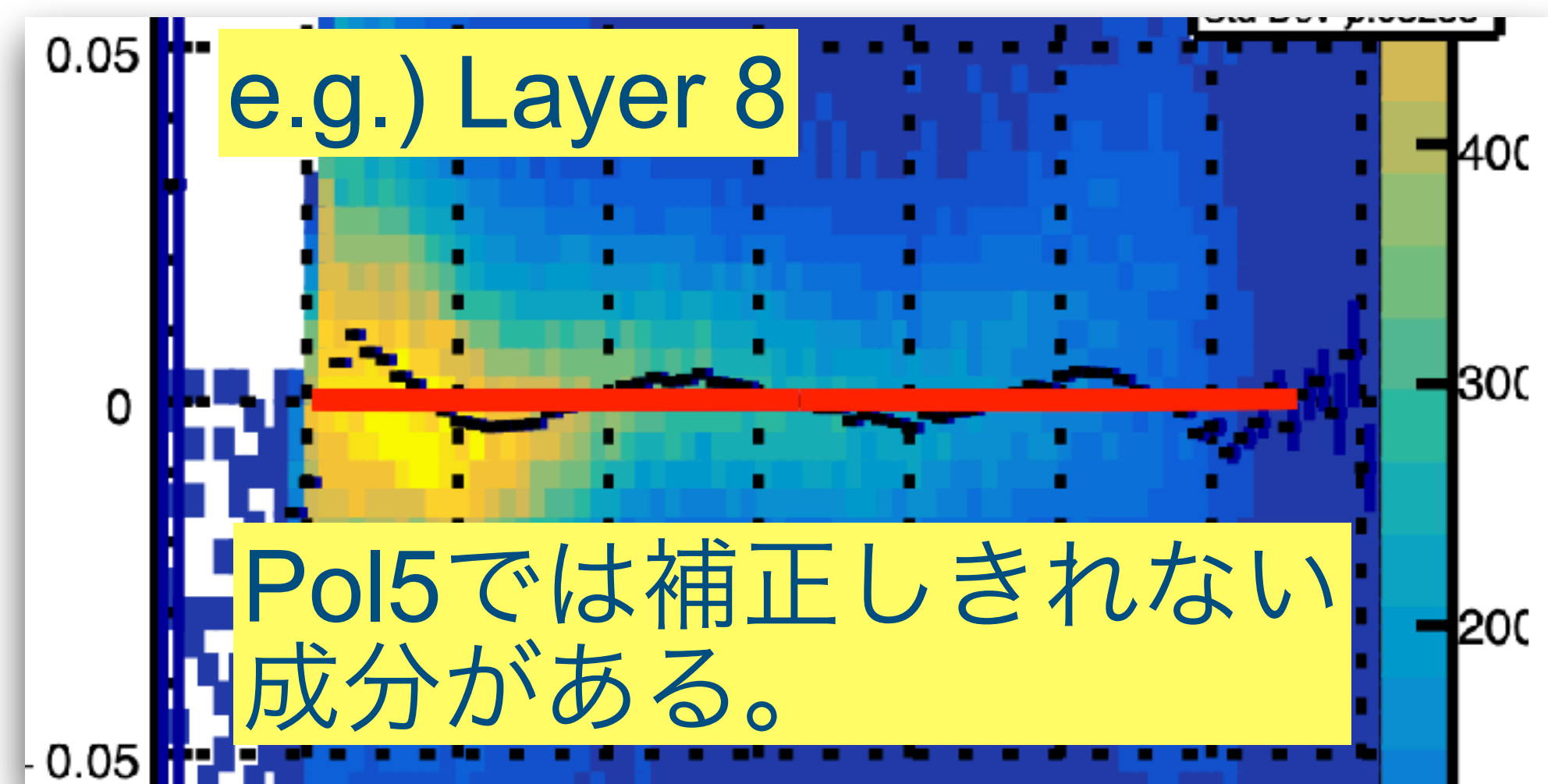


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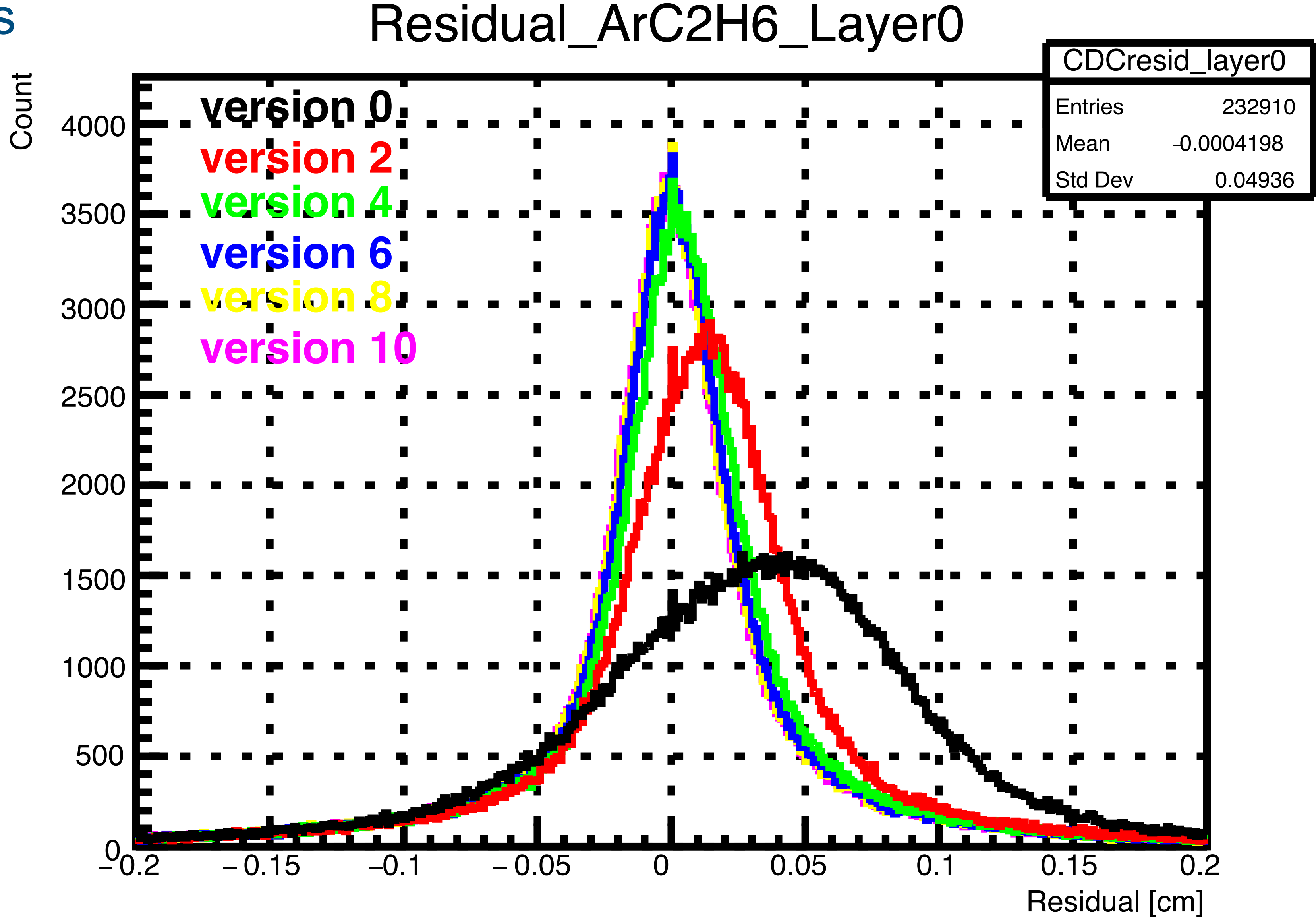
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10

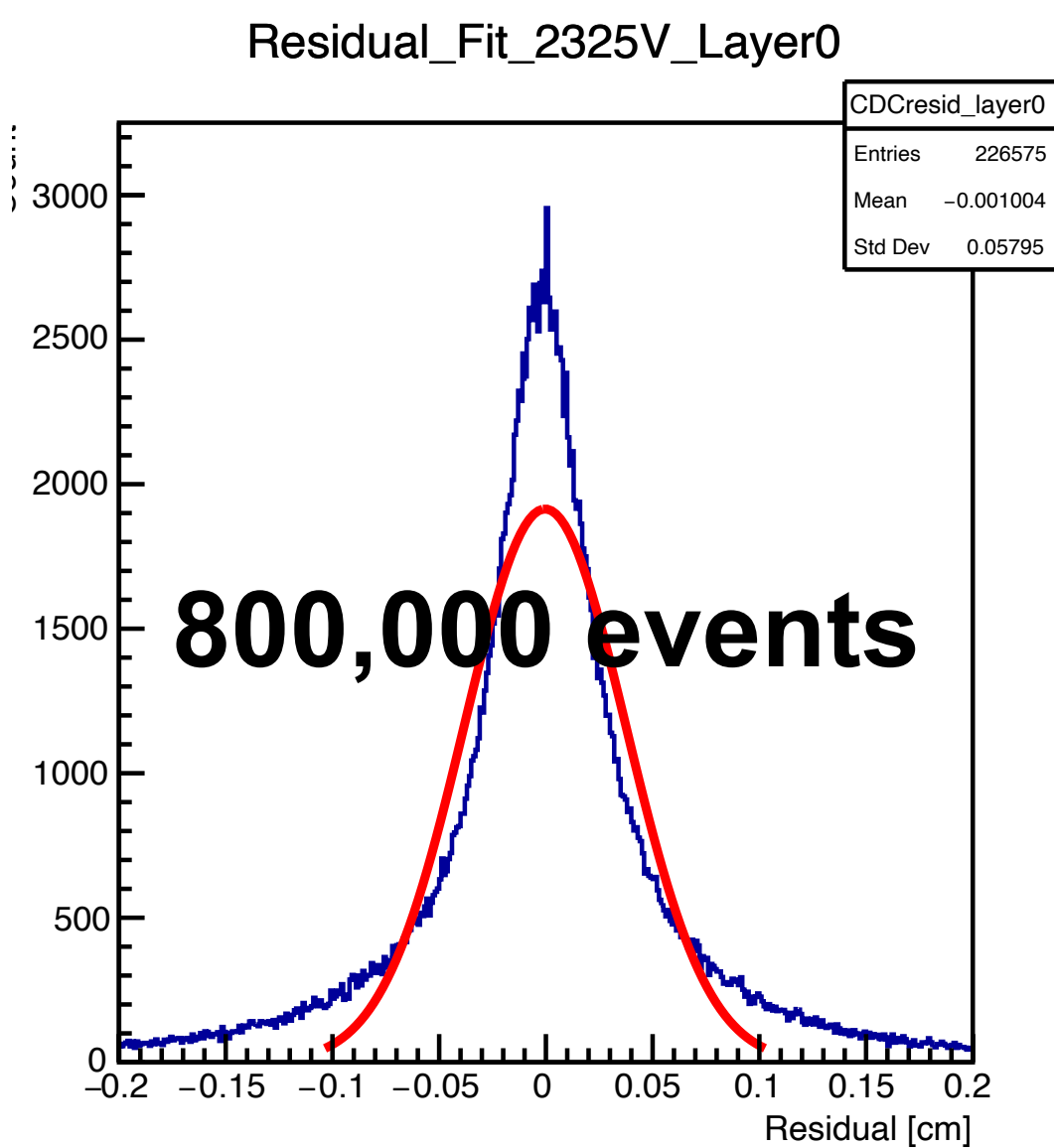
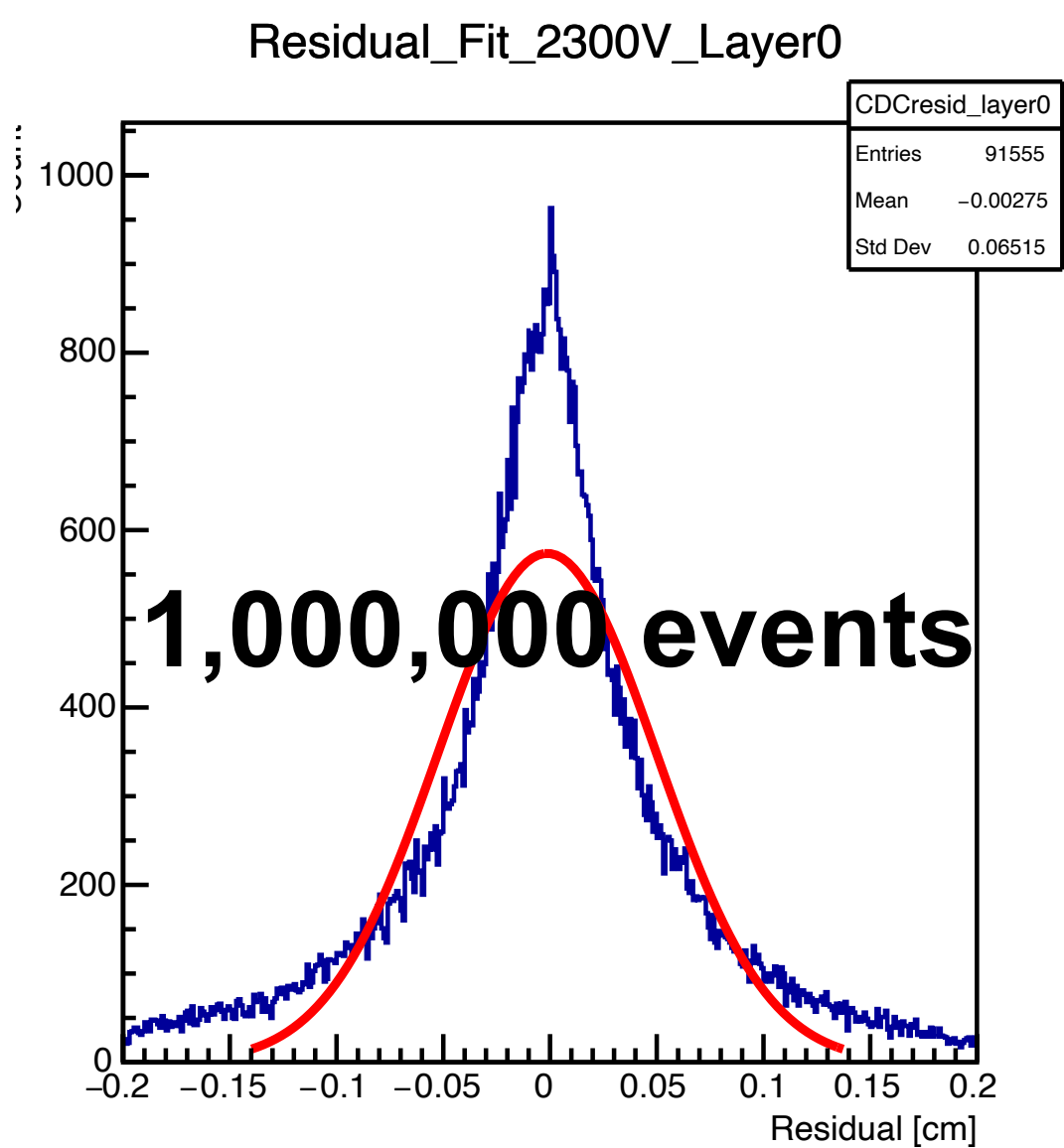
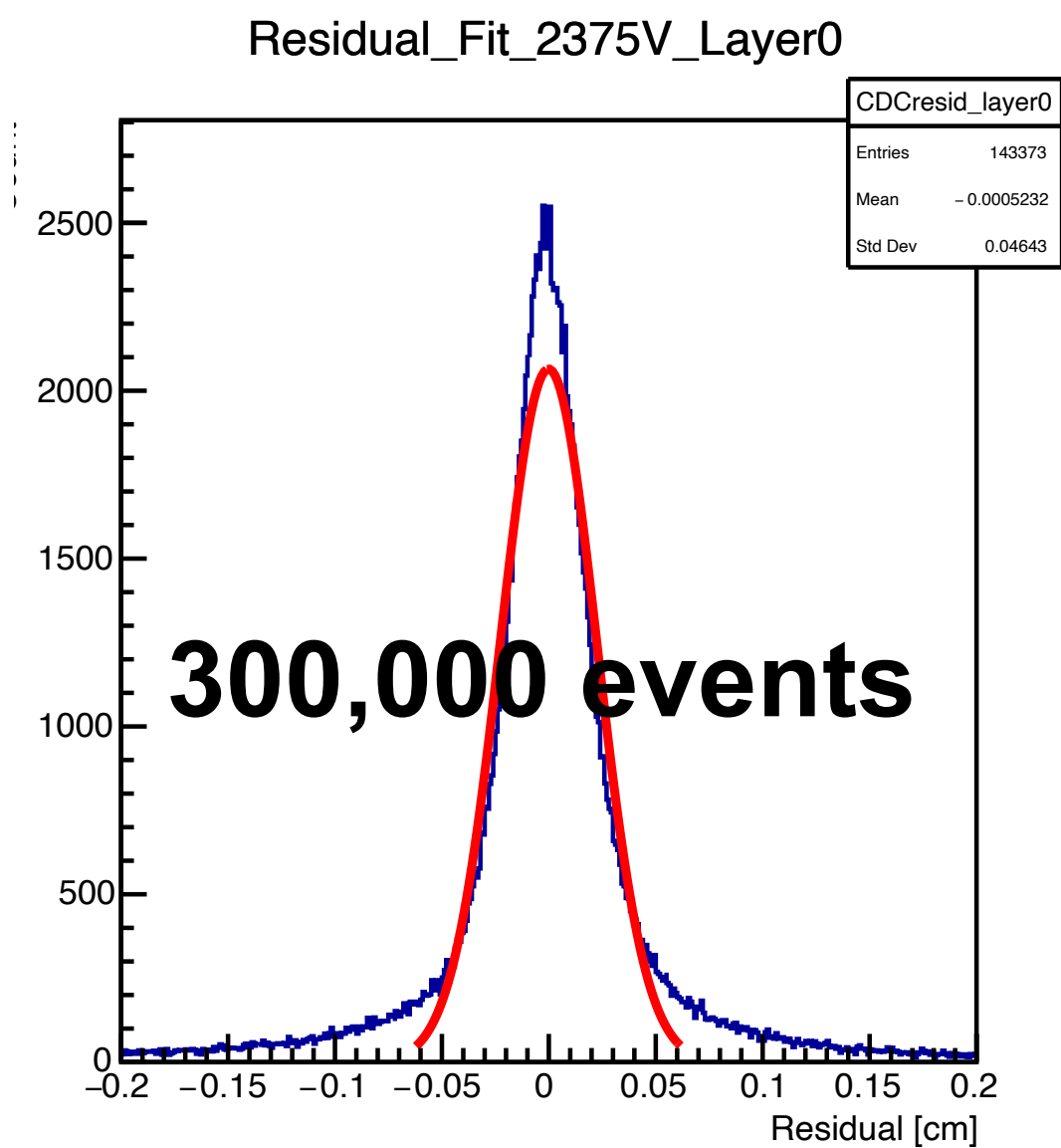
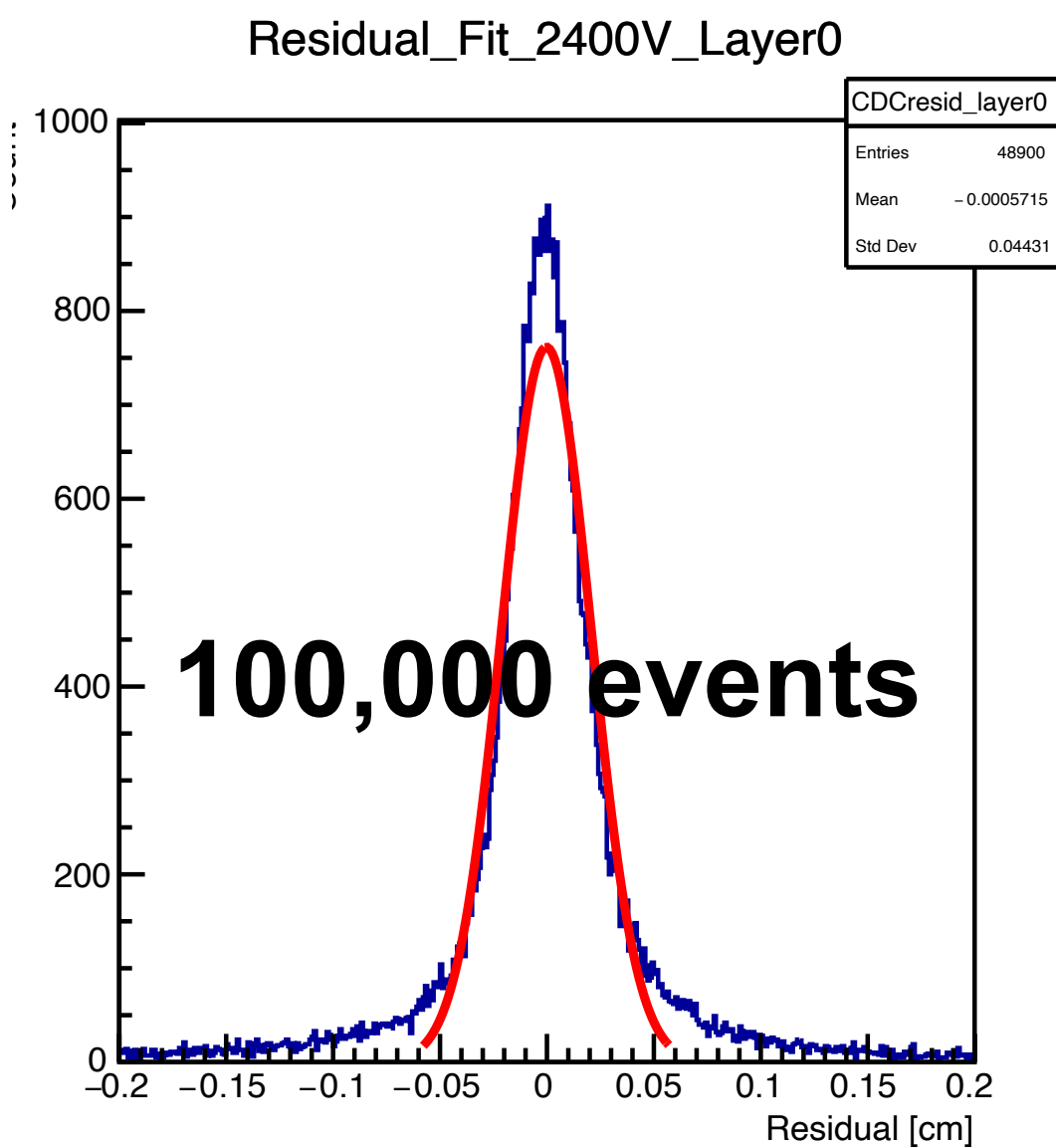
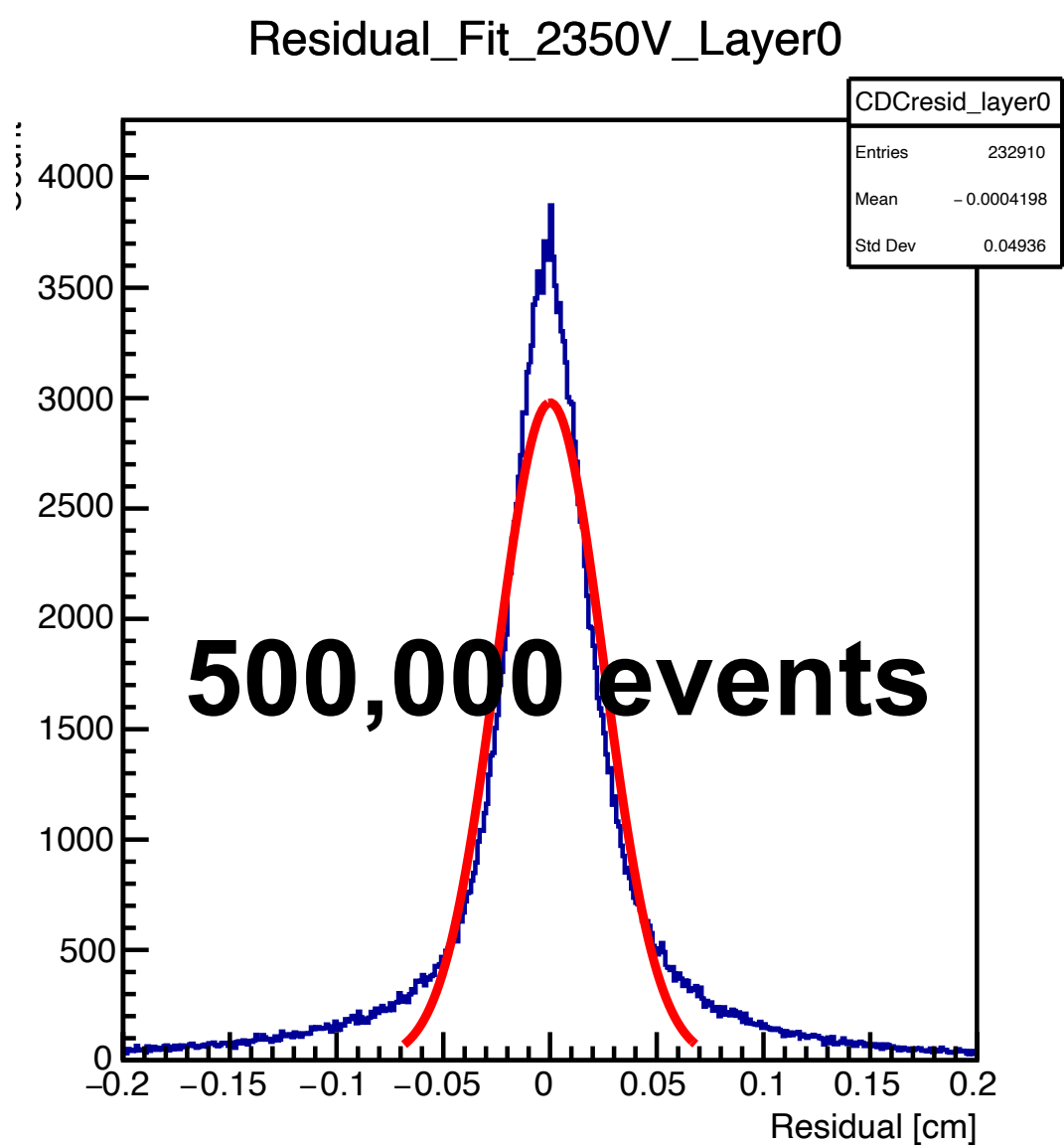


Residual; Before After interating, 2350 V(Run 44)

- 50,000 events



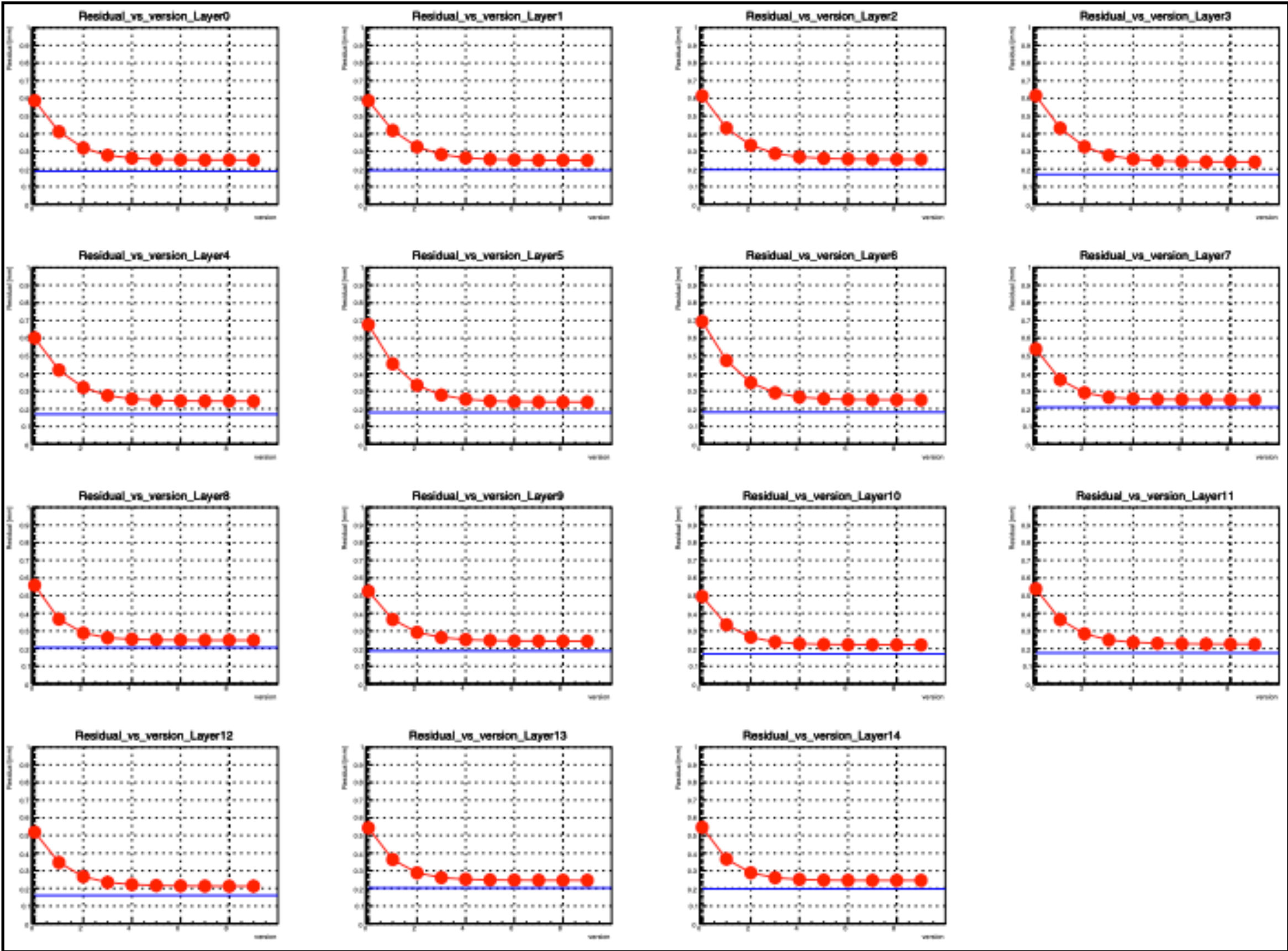
Gauss Fit; After iterating, 2300~ 2400 V



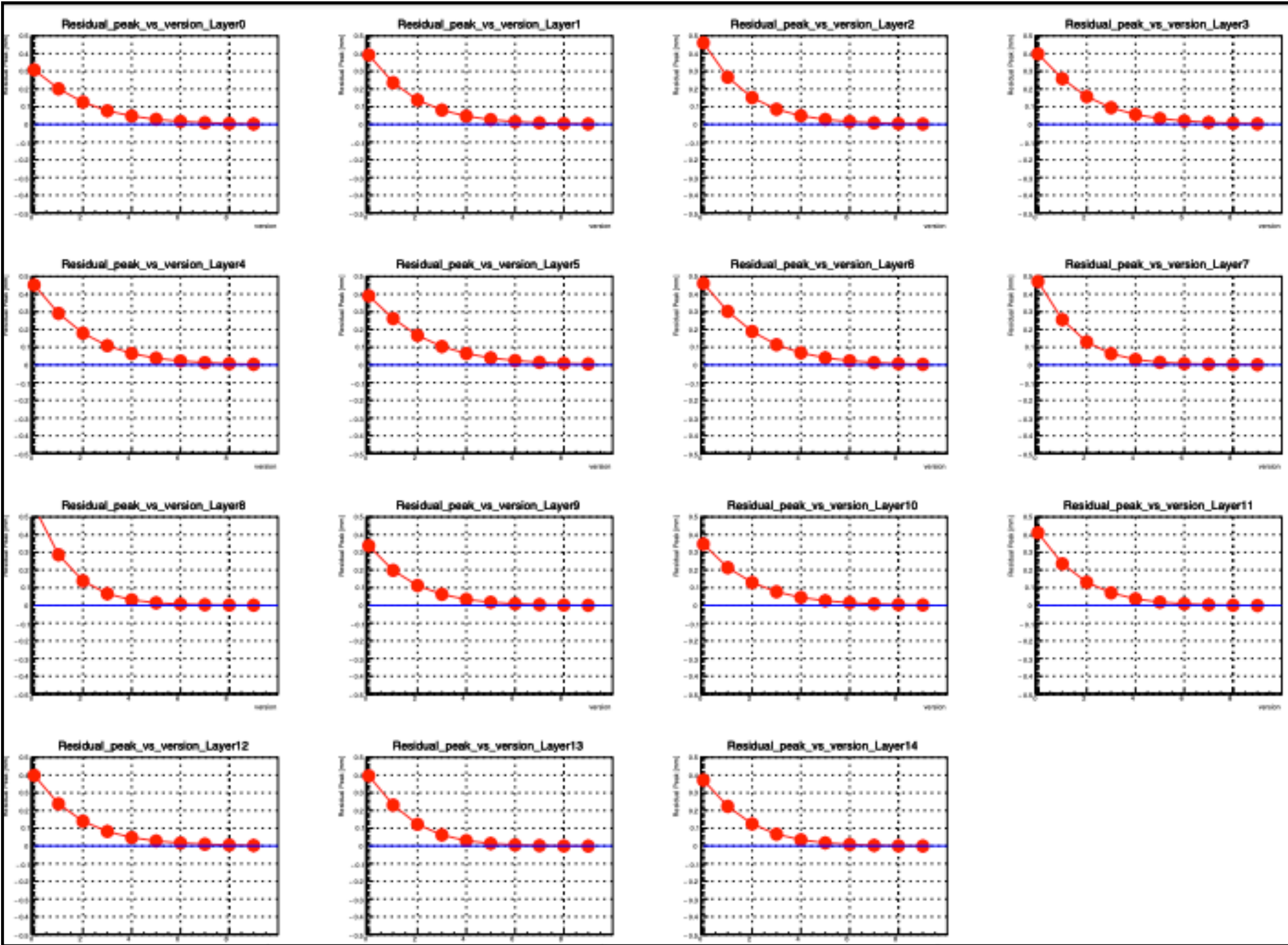
Fit result of Residual; Before After iterating, 2350 V(Run 44)

—— ArC2H6 after iterating

Sigma vs Version



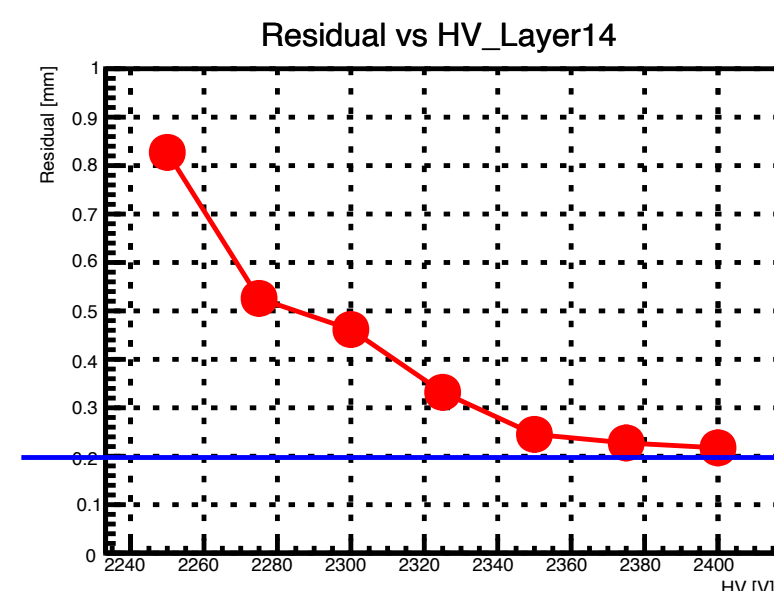
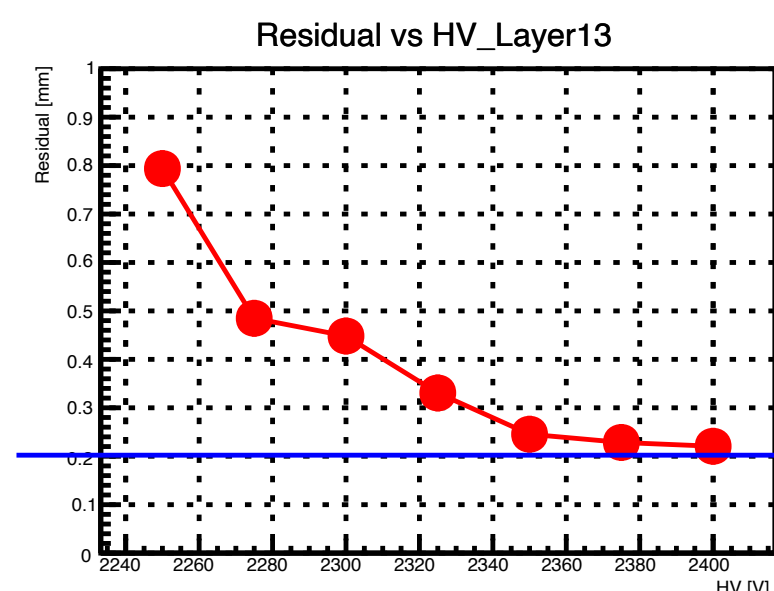
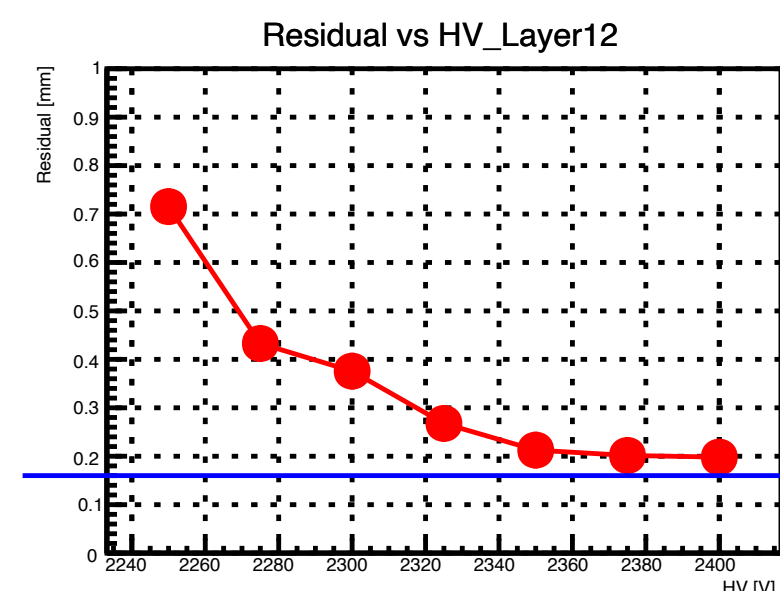
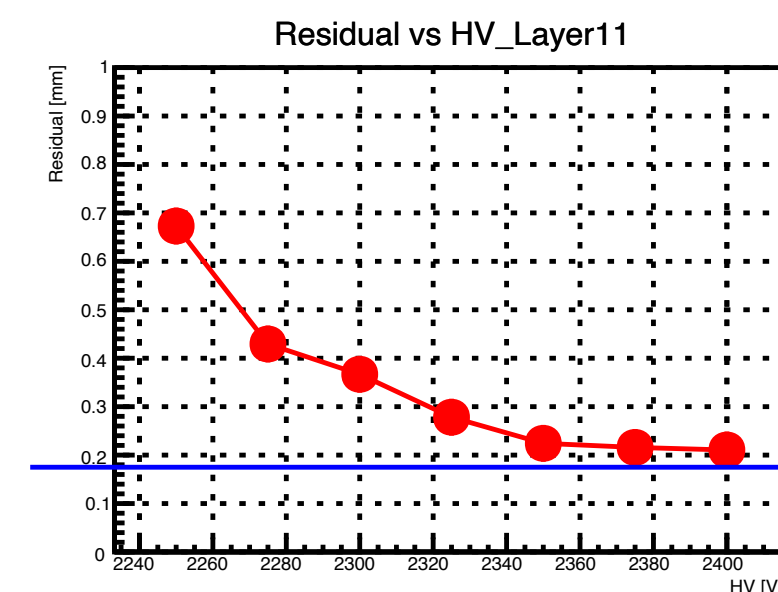
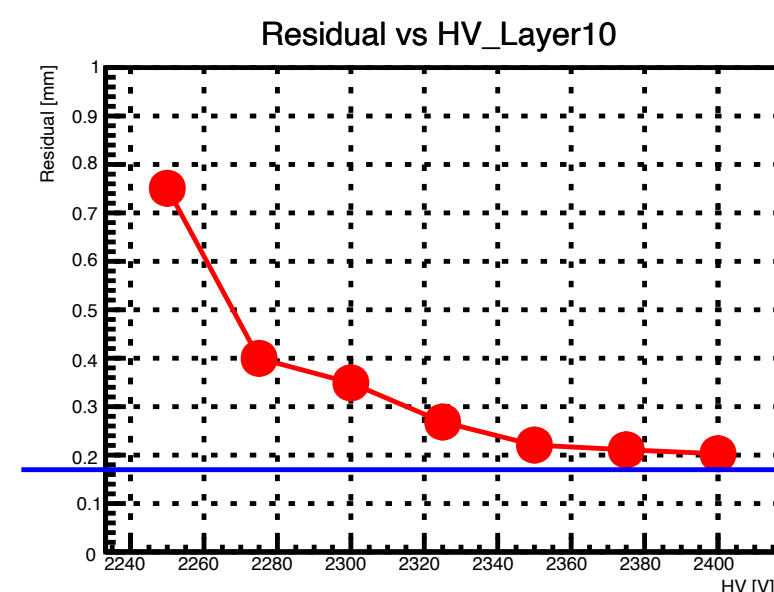
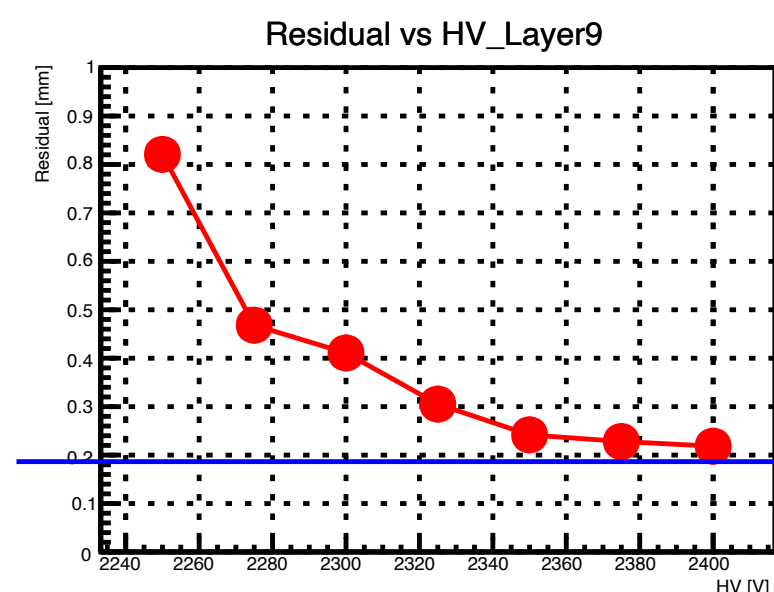
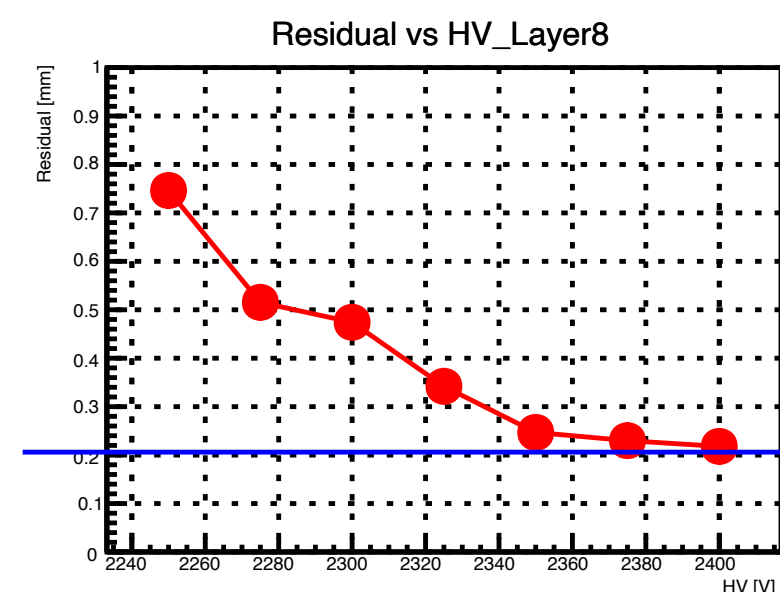
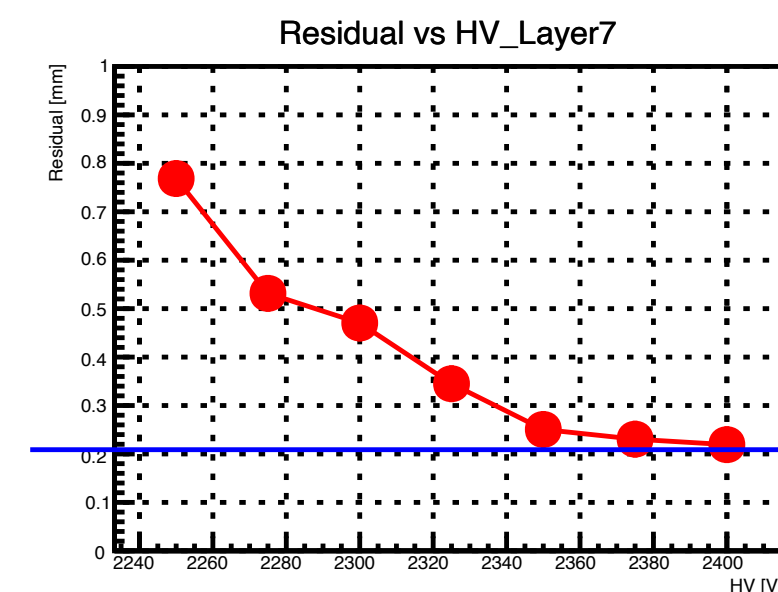
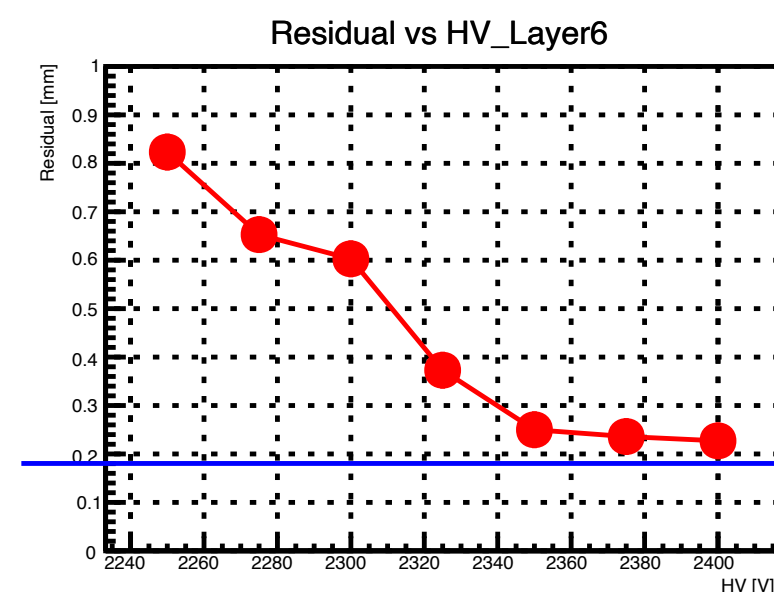
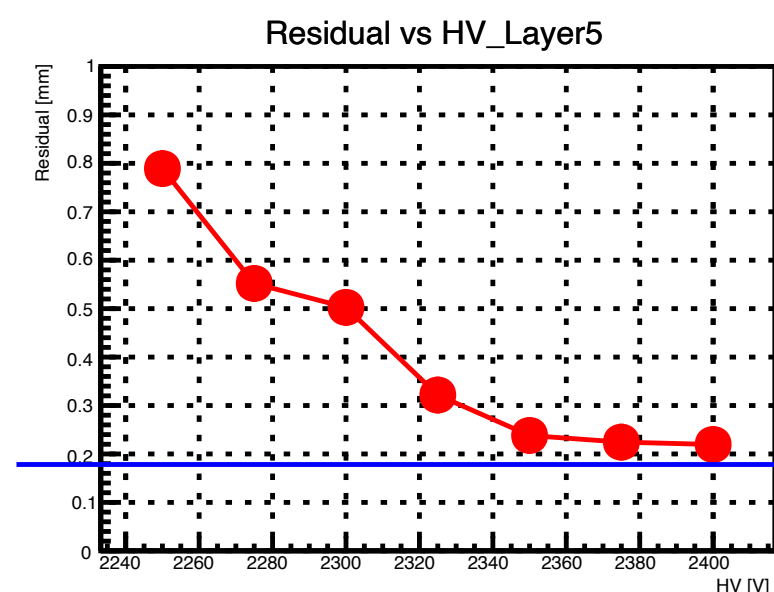
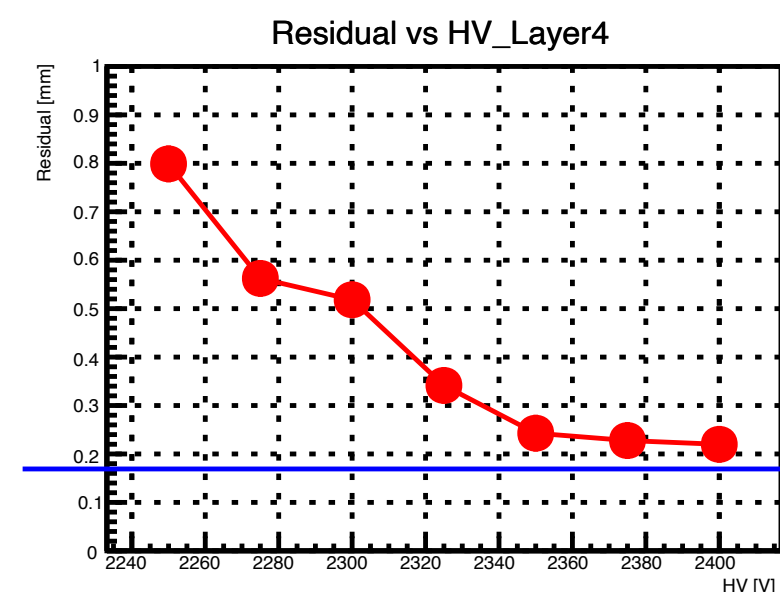
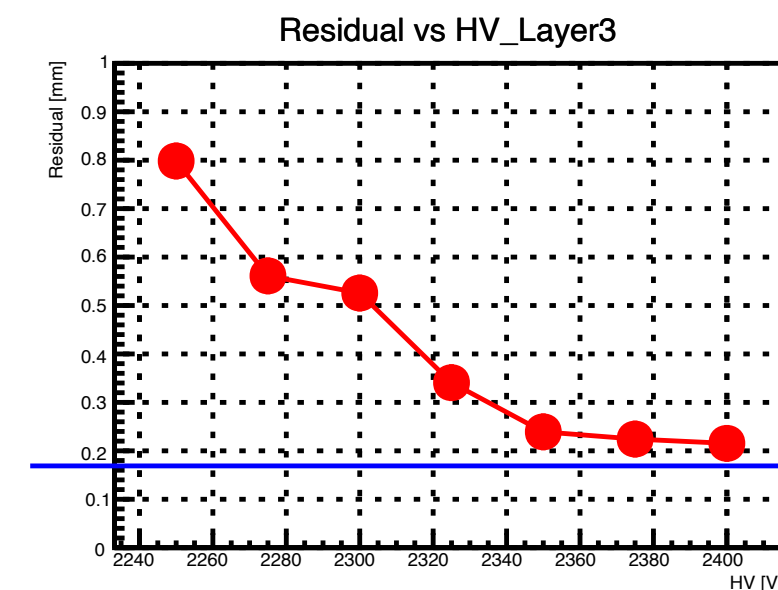
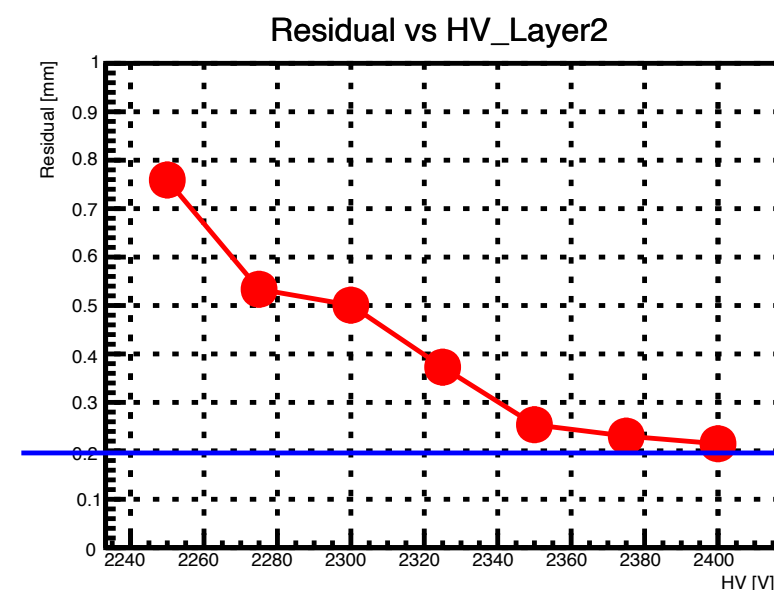
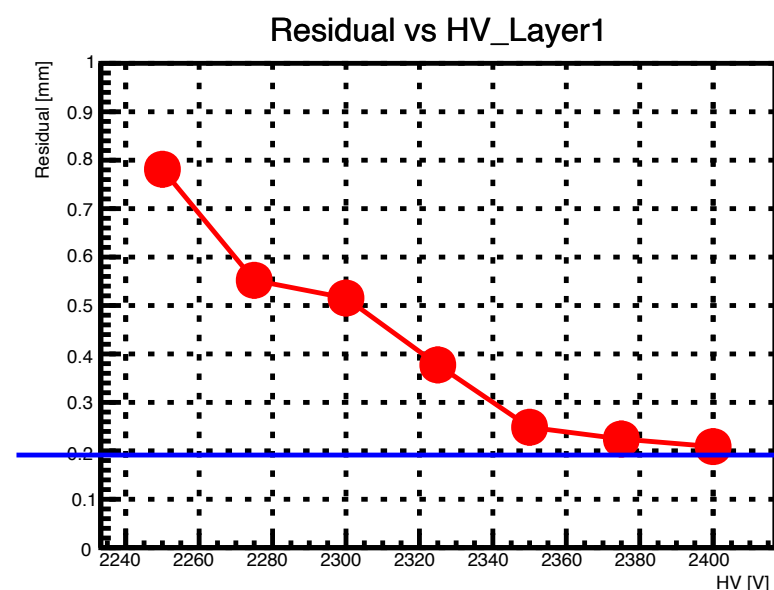
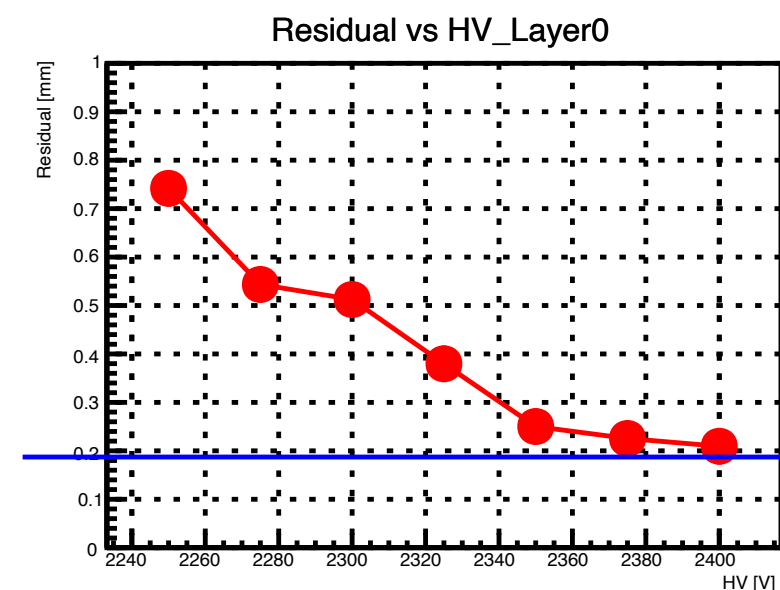
Peak vs Version



Residual vs HV After iterating

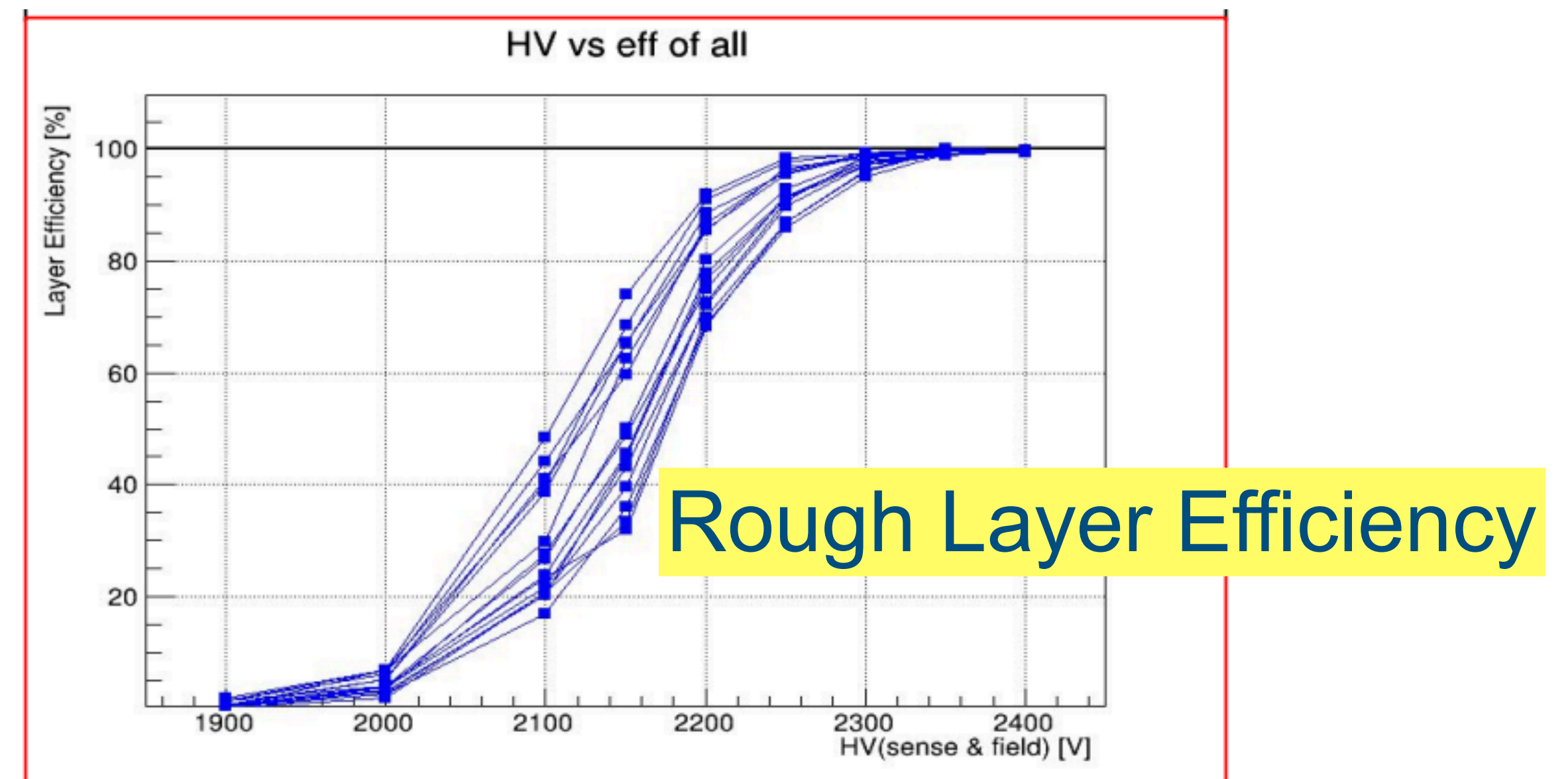
2250~2400 V

— ArC2H6



Current Status

- 熱縮作業中 for E80 CDC in GeV-g 測定室, 明日中に終わらせたい.
- ArCO2 (90:10) study with E15 CDC
 - Tracking Eff vs HV, **Residual vs HV plot**をまずは作りたい。
 - そのために**XT parameter tune**をした。←今日のレポート
(2250~2400Vのみ。2275V以下は統計が不十分)



Schedule

- Tracking Eff vs HV, Residual vs HV plot
- ArC2H6(50:50)とArCO2の比較をまとめる
- CDC関連論文、記事、TDRを漁って自分がやるべきことを炙り出す。
- 学会トークの骨格考える。
(スライド作りつつ)



松: 木曜までには！
竹: 土曜までに。
梅: 仙台発(日曜)までに。

2024/08/26	Mon	
2024/08/27	Tue	
2024/08/28	Wed	
2024/08/29	Thu	
2024/08/30	Fri	
2024/08/31	Sat	
2024/09/01	Sun	東海へ
2024/09/02	Mon	16
2024/09/03	Tue	17
2024/09/04	Wed	18
2024/09/05	Thu	19
2024/09/06	Fri	20
2024/09/07	Sat	
2024/09/08	Sun	
2024/09/09	Mon	21
2024/09/10	Tue	22
2024/09/11	Wed	23
2024/09/12	Thu	24
2024/09/13	Fri	25

2024/09/14	Sat	仙台へ
2024/09/15	Sun	北海道へ
2024/09/16	Mon	JPS@北大
2024/09/17	Tue	JPS@北大
2024/09/18	Wed	JPS@北大
2024/09/19	Thu	JPS@北大
2024/09/20	Fri	運転免許
2024/09/21	Sat	end
2024/09/22	Sun	
2024/09/23	Mon	東海へ
2024/09/24	Tue	
2024/09/25	Wed	
2024/09/26	Thu	
2024/09/27	Fri	
2024/09/28	Sat	
2024/09/29	Sun	
2024/09/30	Mon	

Back Up

Figures of all runs and layers is in Kimura's Google Drive "[Back Up in Slide](#)"