

Year 2 Semester 1 updates:
H35DEMO eTCT Measurements
(Internal)

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Last few weeks:

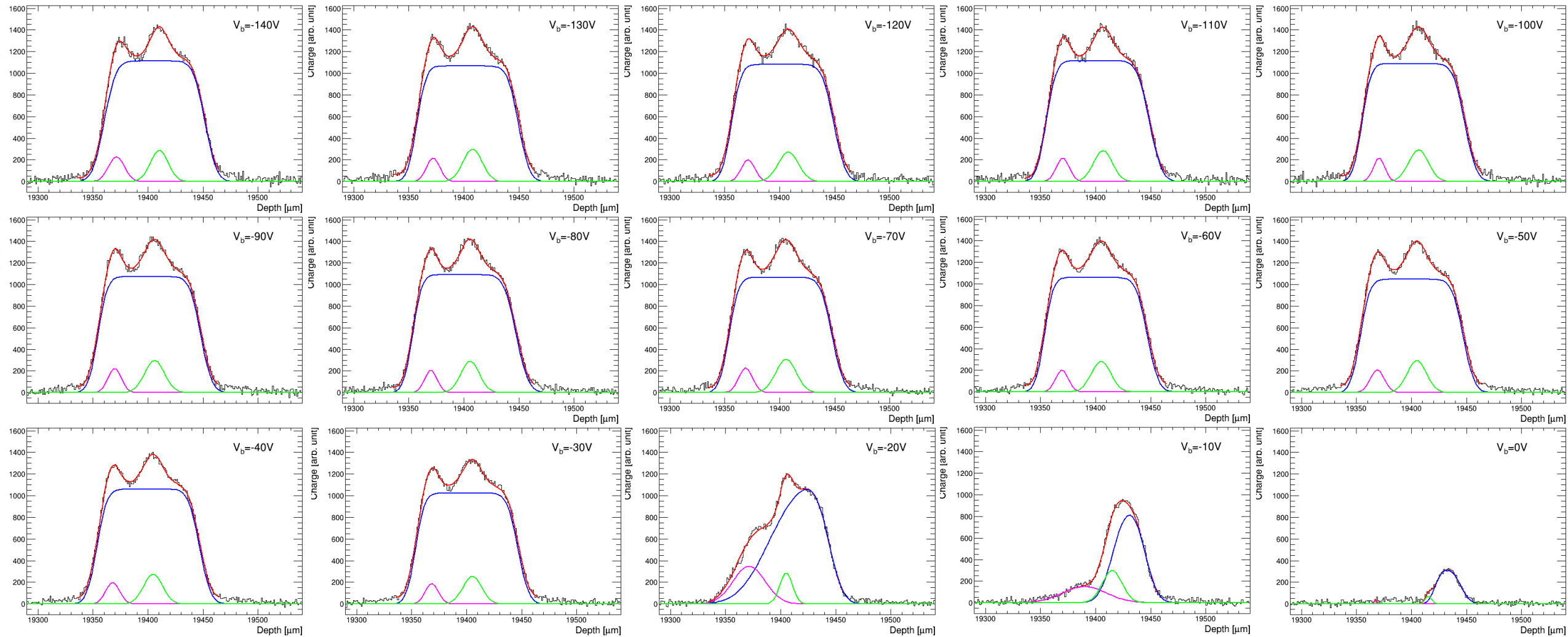
(Internal)

Development of analysis script with particular consideration to “reusability” → (ATLASpax-1/MuPIX8 analysis & Ljubljana irradiated H35DEMO analysis, possibly beyond? → <https://gitlab.ph.liv.ac.uk/mlfranks/H35DEMOeTCT.git>)

- Constraint of parameters
 - Achieve best fit without tuning each plot by hand
 - Only using voltages: 10V, 20V, 30V, 40V, ..., 140V
- Consideration of FWHM calculation
 - Width of fit? Width of error function?

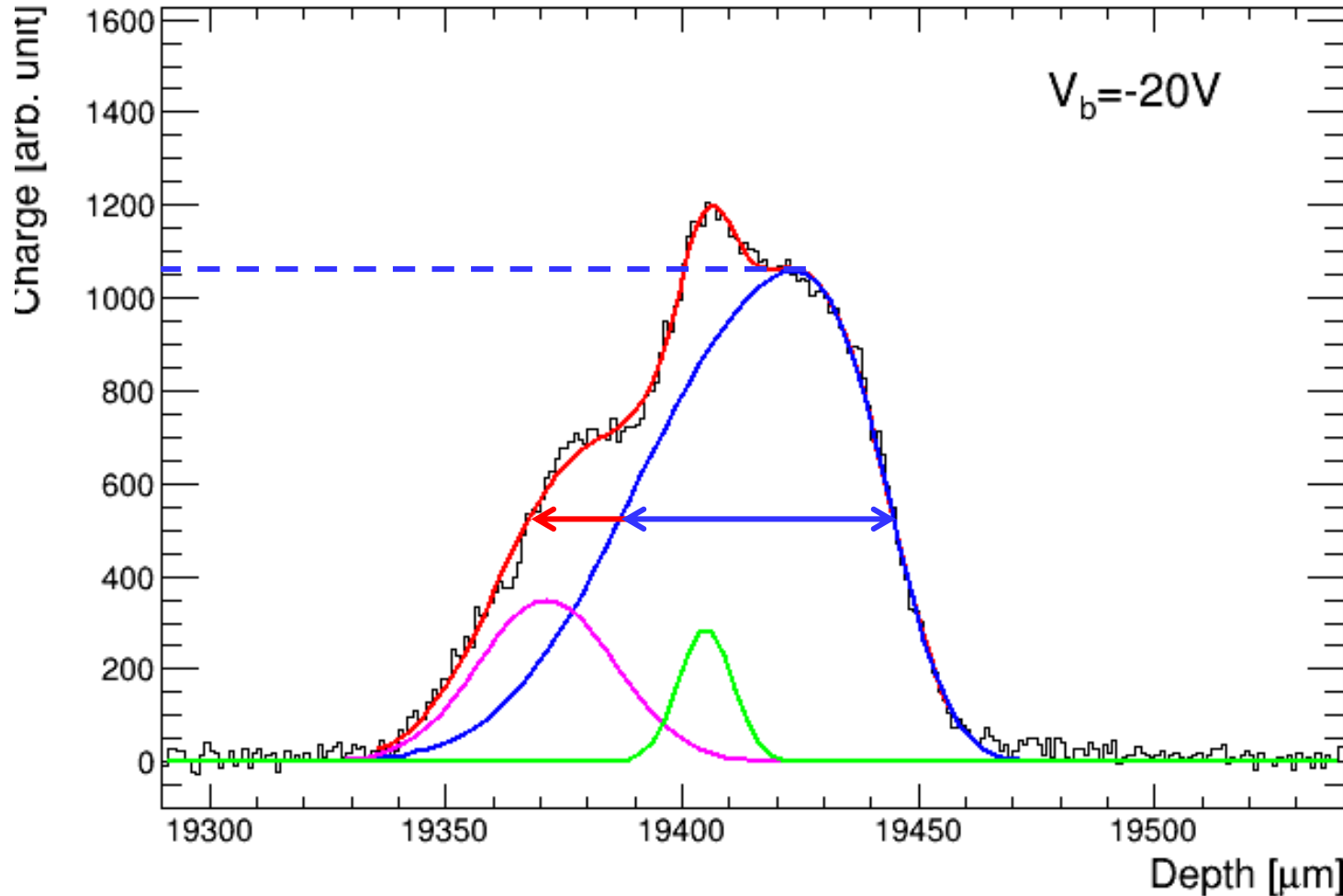
Fit for each voltage measurement

(Internal)



FWHM calculations

(Internal)

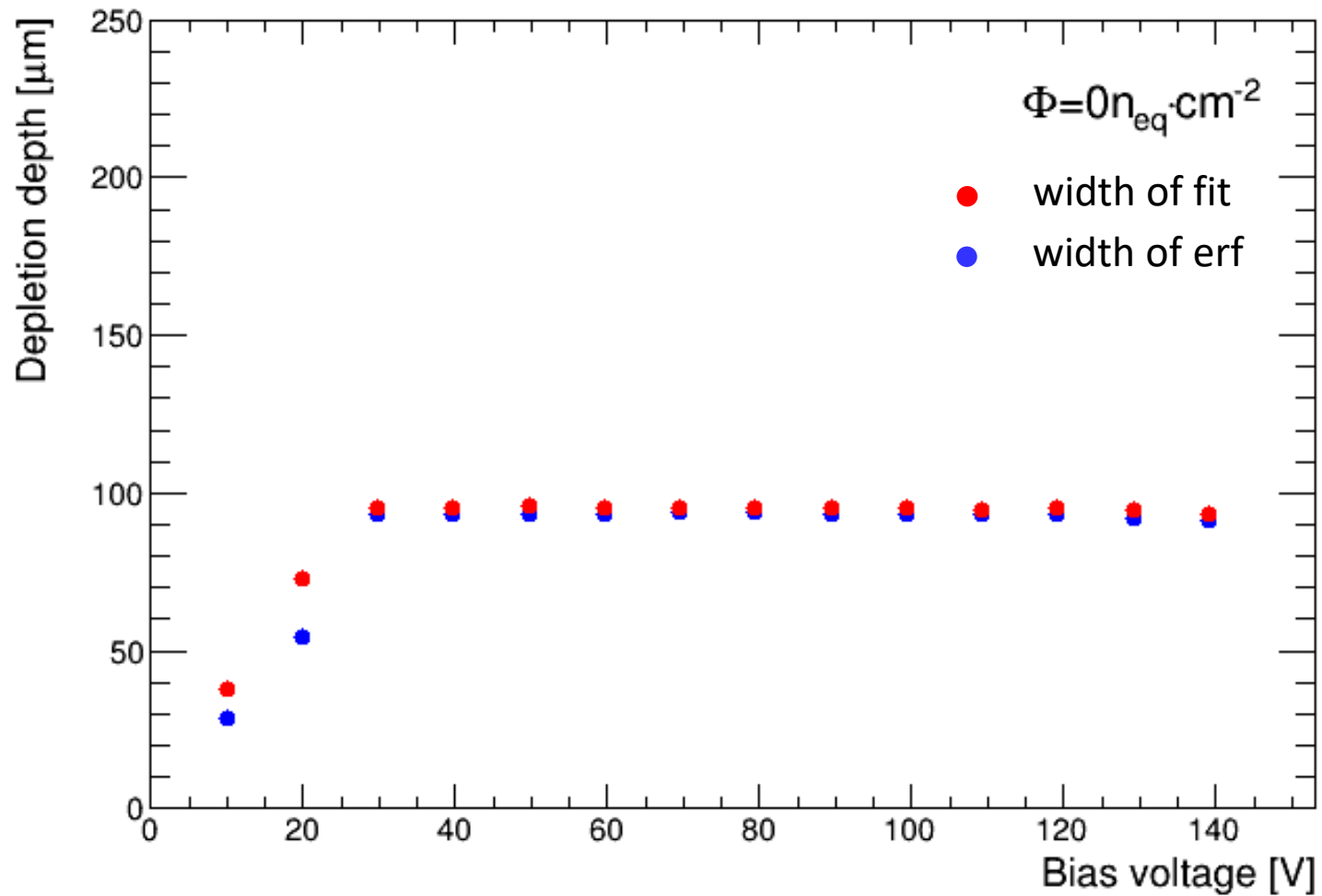


- **FWHM of fit:**
Full width of fit at half max of error function
- **FWHM or error function:**
Full width at half max



0 fluence depletion depth

(Internal)



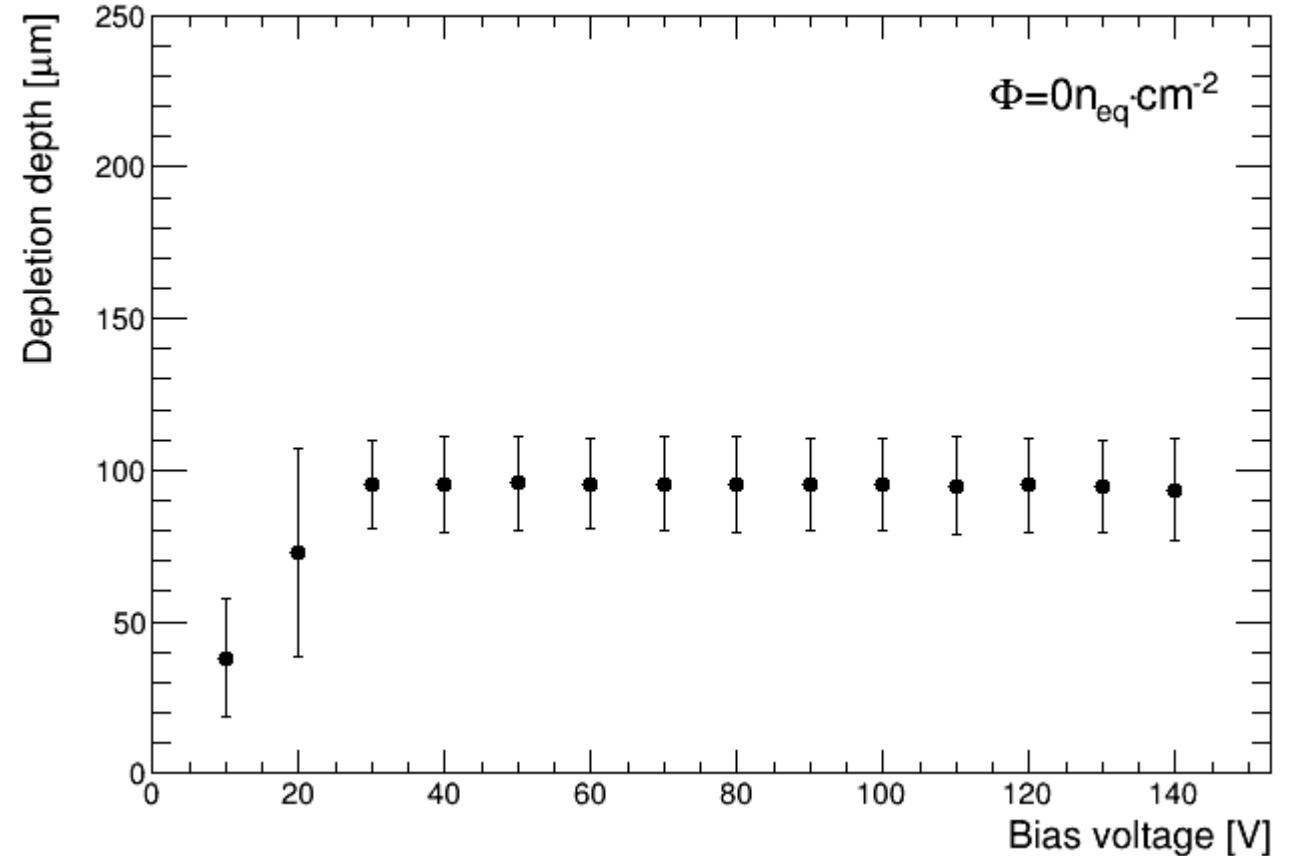
Plots for **same device** but different methods of FWHM calculation



Next steps:

(Internal)

- Analysis of irradiated devices
 - Script needs to be (mostly) complete before analysis begins
- Error analysis
 - Simple $\rightarrow \sigma_{\text{errorfunction}}$
 - More robust method?



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