

updating wire geometries for 1x8x14

- Thanks to Laura and Slavic for updating the gdmls
- do we need to update 1x6x6 and 1x8x6?

	old	new
3view (-48, 0, 90)	$256 + 320 + 288 = 864$	$256 + 320 + 288 = 864$
3view_30deg (-30, 30, 90)	$298 + 298 + 304 = 900$	$286 + 286 + 292 = 864$

gdml:

3view: dunevd10kt_3view_v2_refactored_1x8x14ref_nowires.gdml

3view_30deg: dunevd10kt_3view_30deg_v3_refactored_1x8x14ref_nowires.gdml

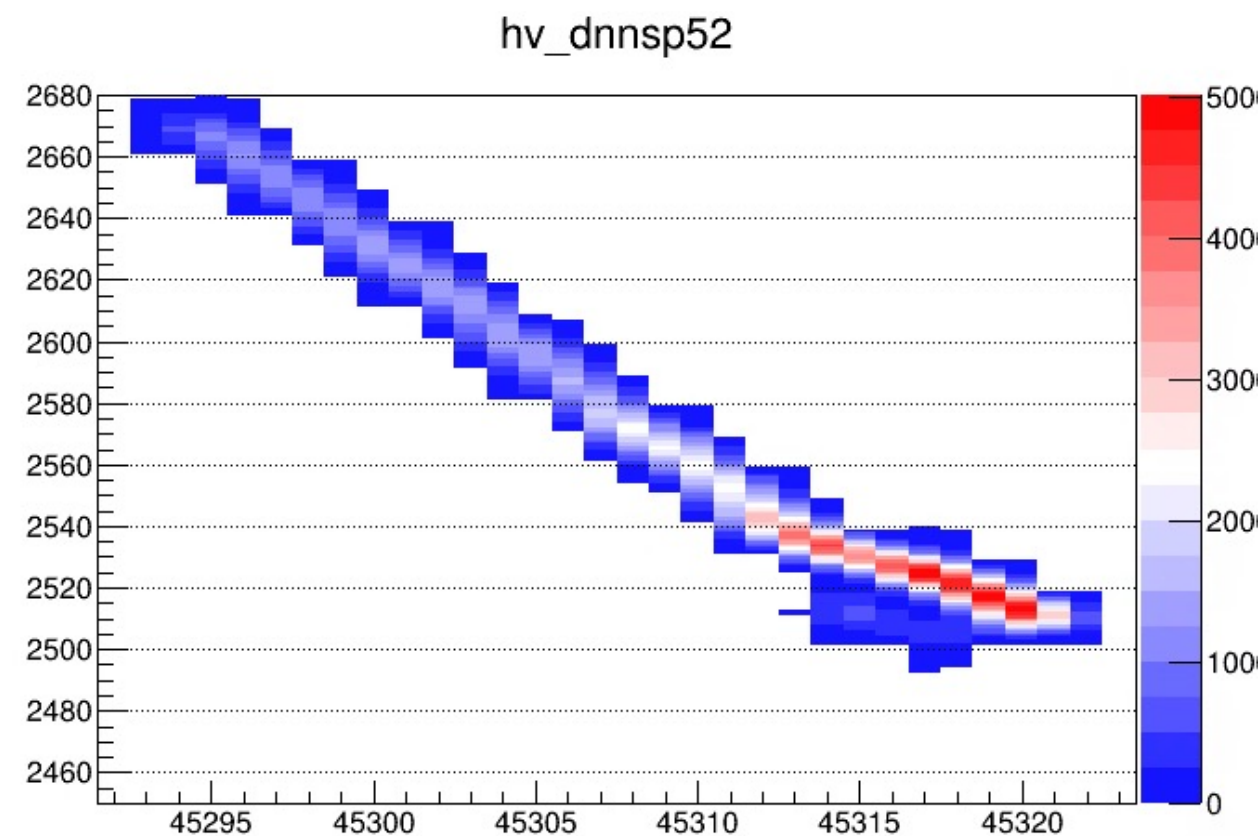
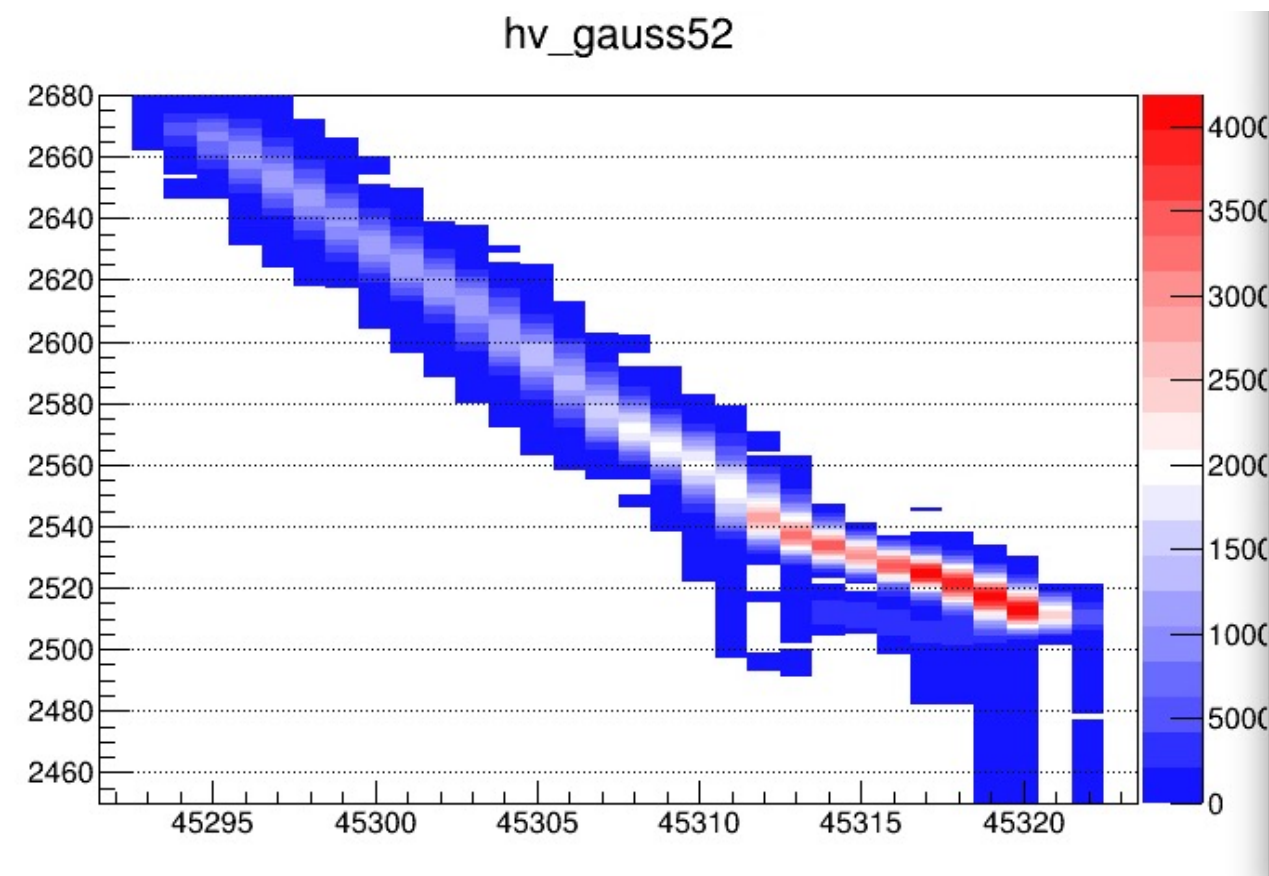
debug plot:

3view: https://www.phy.bnl.gov/~yuhw/wire-cell-data/dunevd10kt_3view_v2_refactored_1x8x14ref.pdf

3view_30deg: https://www.phy.bnl.gov/~yuhw/wire-cell-data/dunevd10kt_3view_30deg_v3_refactored_1x8x14ref.pdf

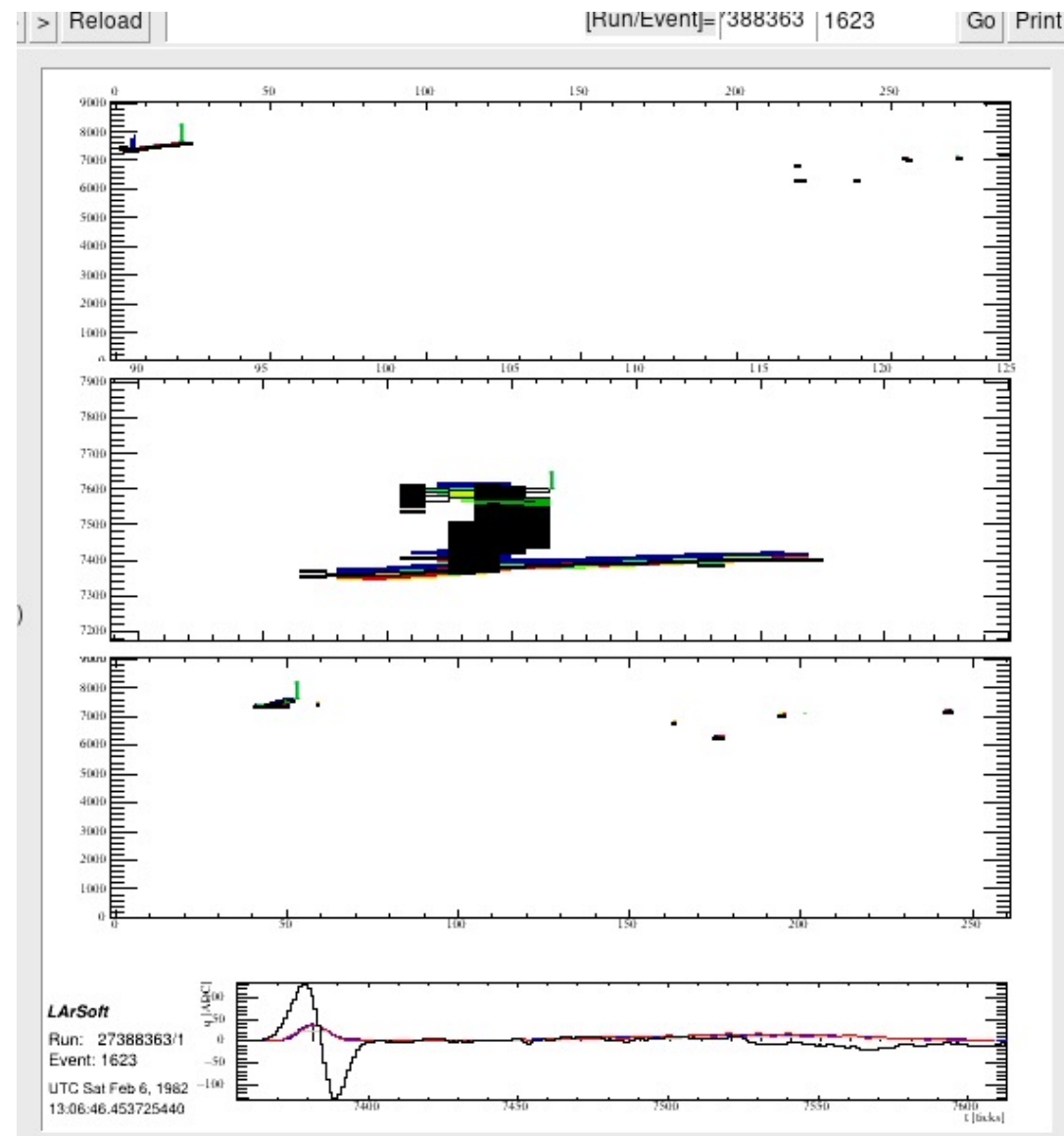
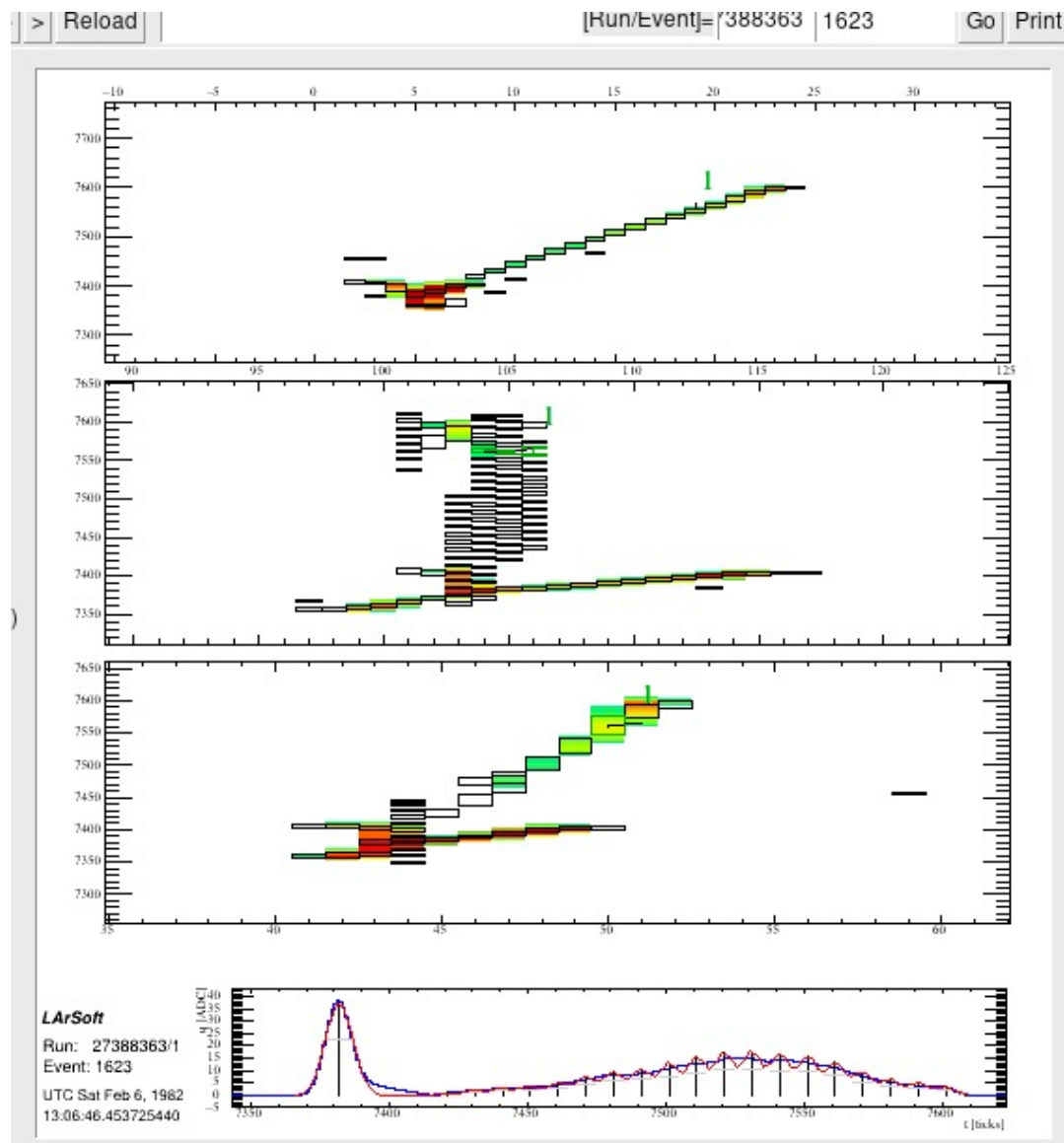
DNN-SP for single muon using 3view cfg.

Using model trained for PDSP

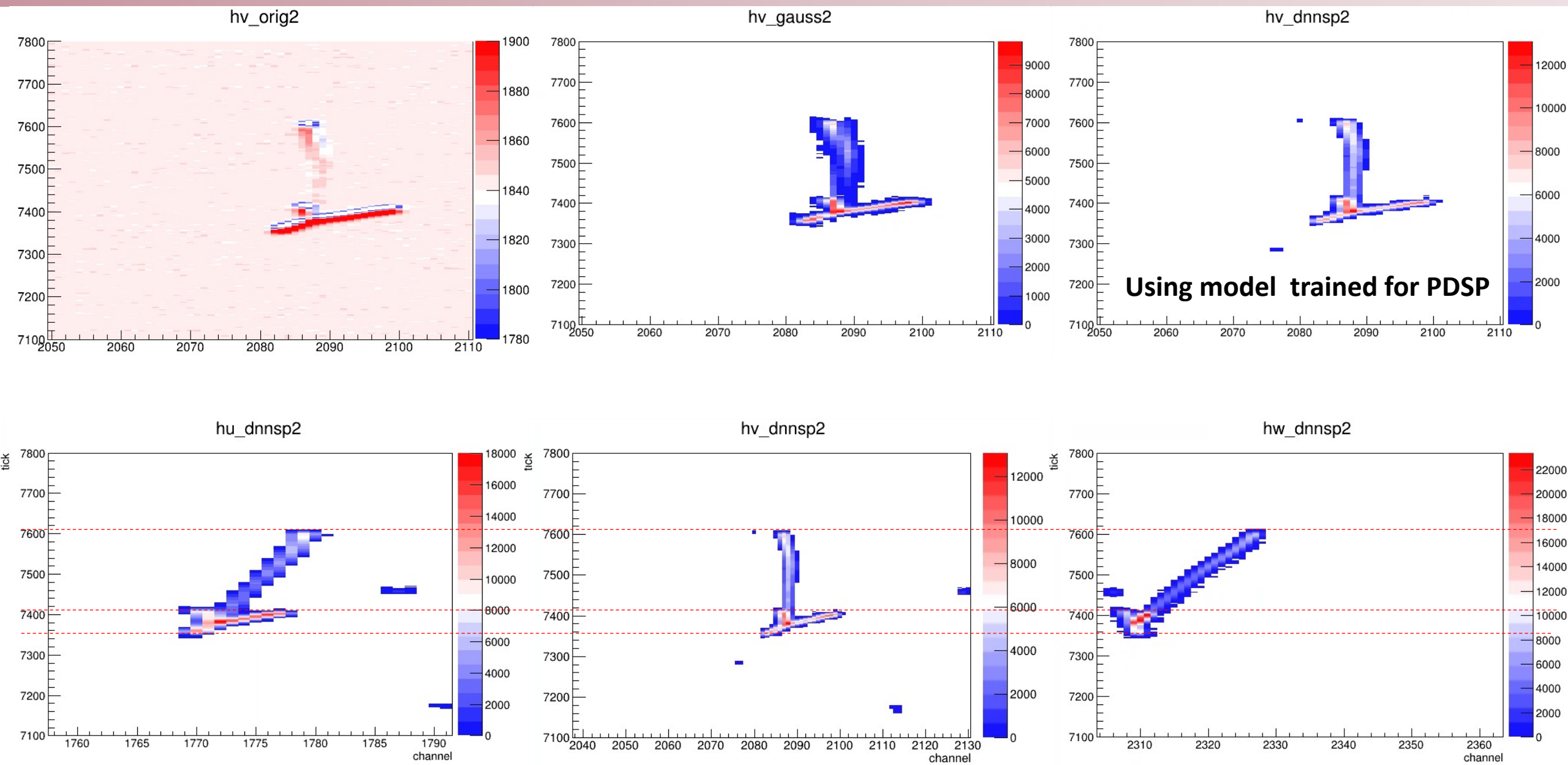


Issues with 3view 2nd induction plane

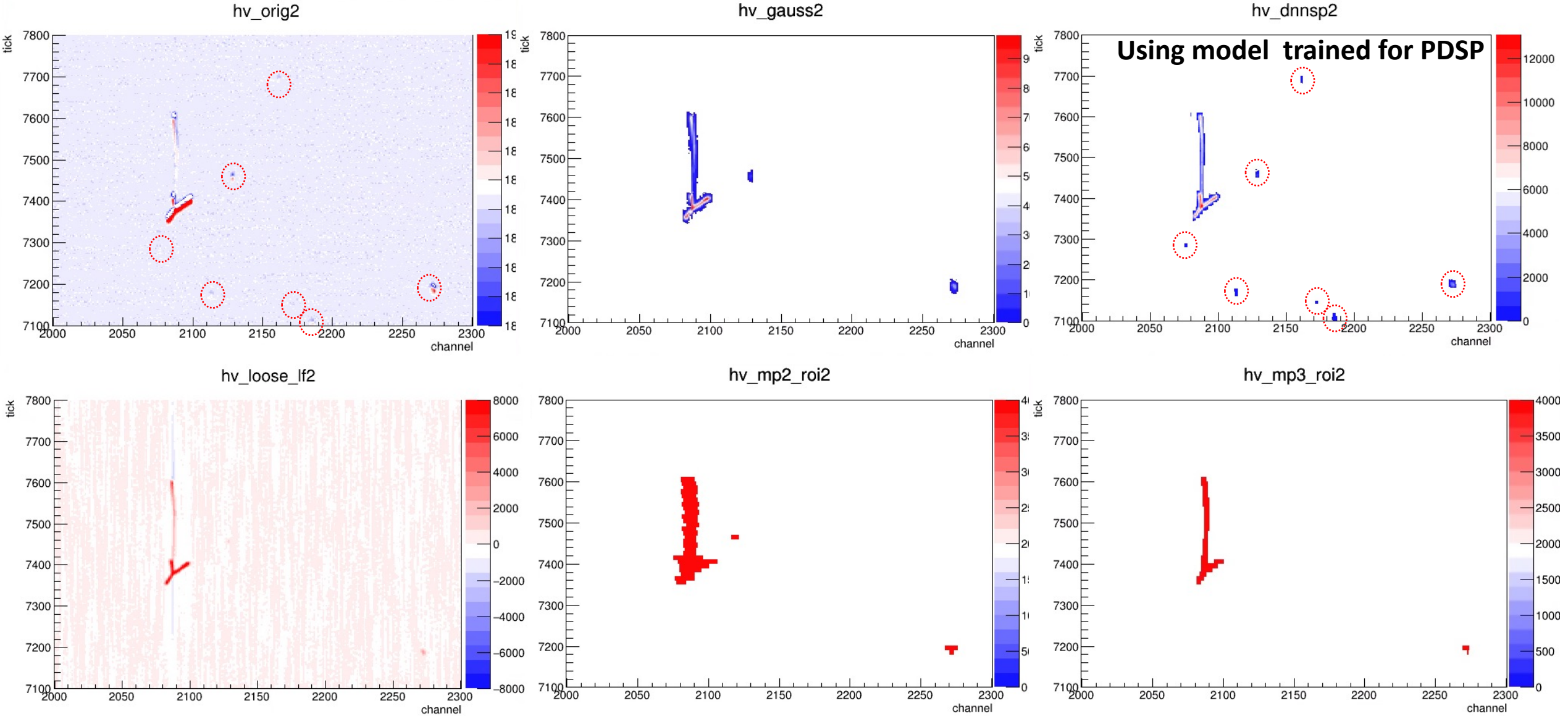
/pnfs/dune/tape_backed/dunepro/fardet-vd/full-reconstructed/2021/mc/out1/FDVPProd1/27/38/83/63/nu_dunevd10kt_1x8x6_3view_27388363_162_20211220T191833Z_gen_g4_detsim_reco.root
event: 1623, CRU 2



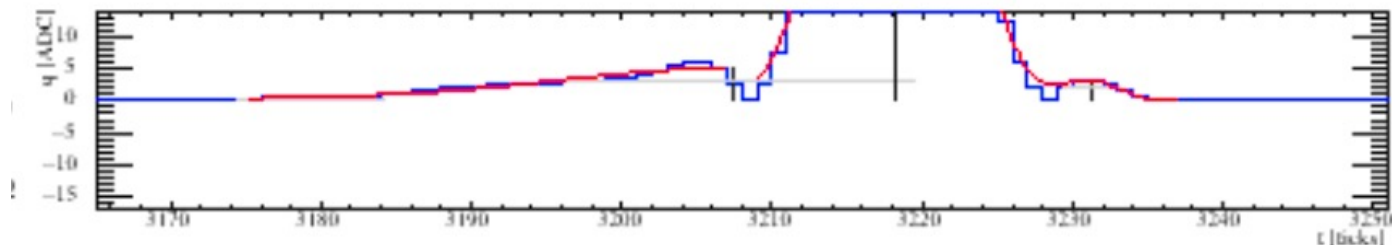
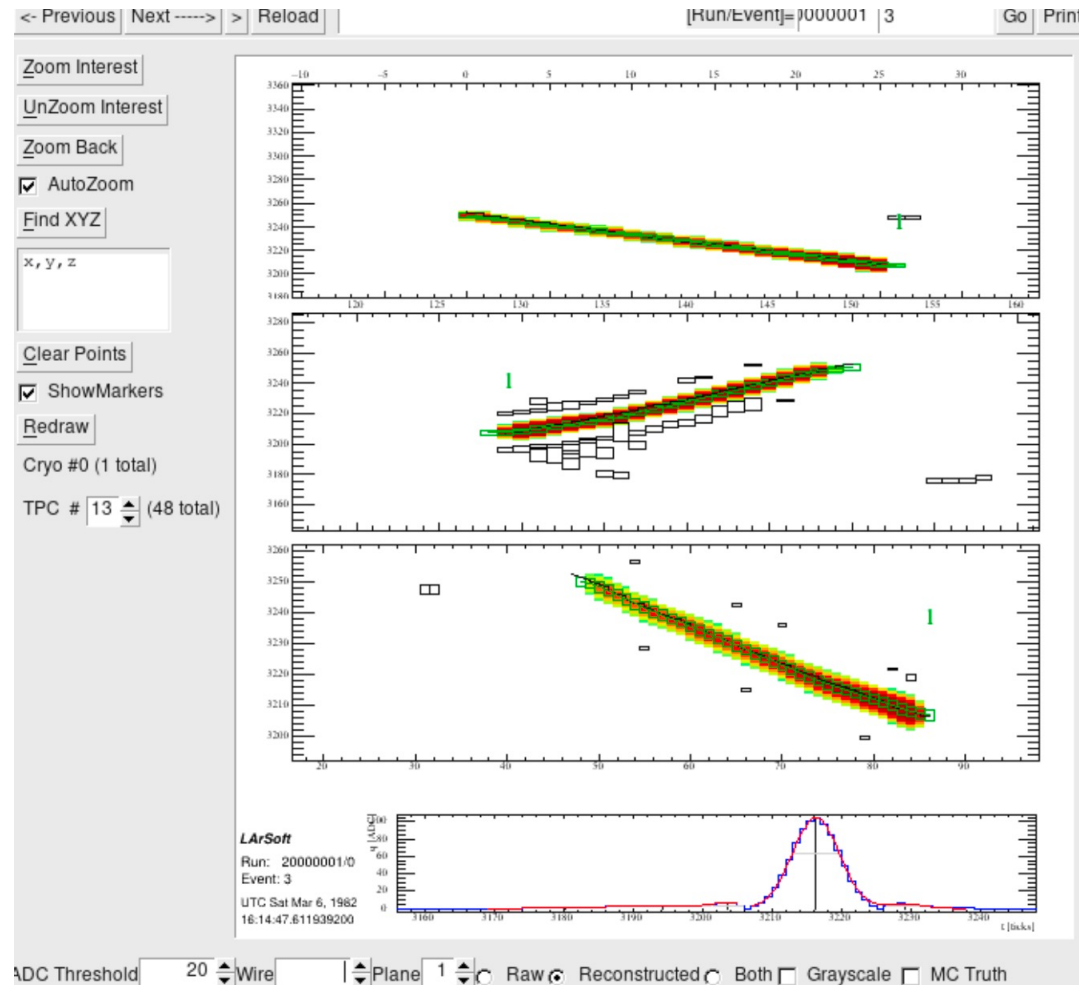
That seems to be an actual pro-longed track

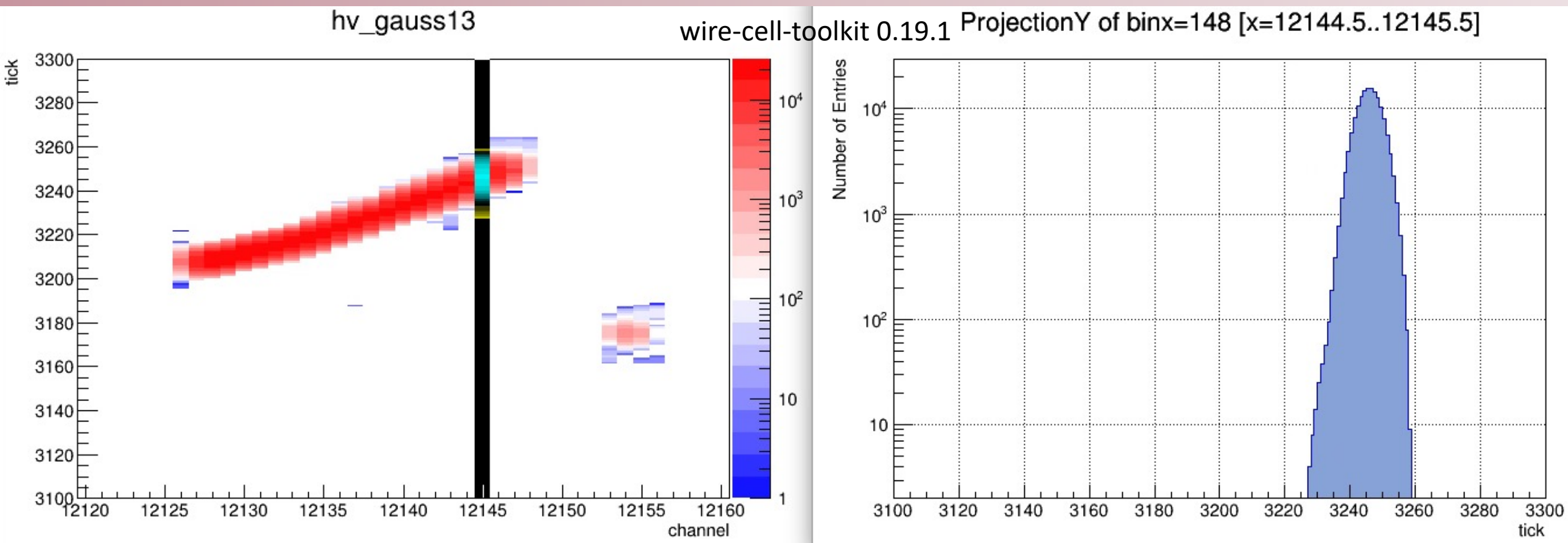


current DNN-SP seems noisier



issues with 3view-30deg, second induction plane





Need to double check with wire-cell-toolkit before 0.18.0

- Update configuration in dunereco and release new wire-cell-toolkit
- double check the noise spectra with wire-cell-toolkit 0.18.0 and after
 - the DFT interface may affect the noise simulation
- Save out both traditional and DNN SigProc?
- Train model for DUNE-VD?
- Tune DNN-SP?
- Computing optimizations for DNN-SP?