

TPC Sim/SigProc Update for 3view_30deg production

Configuration update:

- <https://github.com/DUNE/dunereco/pull/21>
- Combined Sim/SigProc configuration
- Updated wire geom in wire-cell format

wire-cell ups product update (0.20.0)

- Fixed a bug in IDFT introduced in wire-cell 0.18.0
- <https://github.com/WireCell/wire-cell-toolkit/releases/tag/0.20.0>

wirecell 0.20.0 release

- ✓ make a release with SciSoft team - [larsoft v09_53_00](#)

gdml, wire geom

based on [00b6d81](#)

- ✓ 1x8x6 3view_v2, 256+320+288=864
- ✓ 1x8x14 3view_v2, 256+320+288=864
- ✓ 1x8x6 3view_30deg_v3, 286+286+292=864
- ✓ 1x8x14 3view_30deg_v3, 286+286+292=864

jsonnet

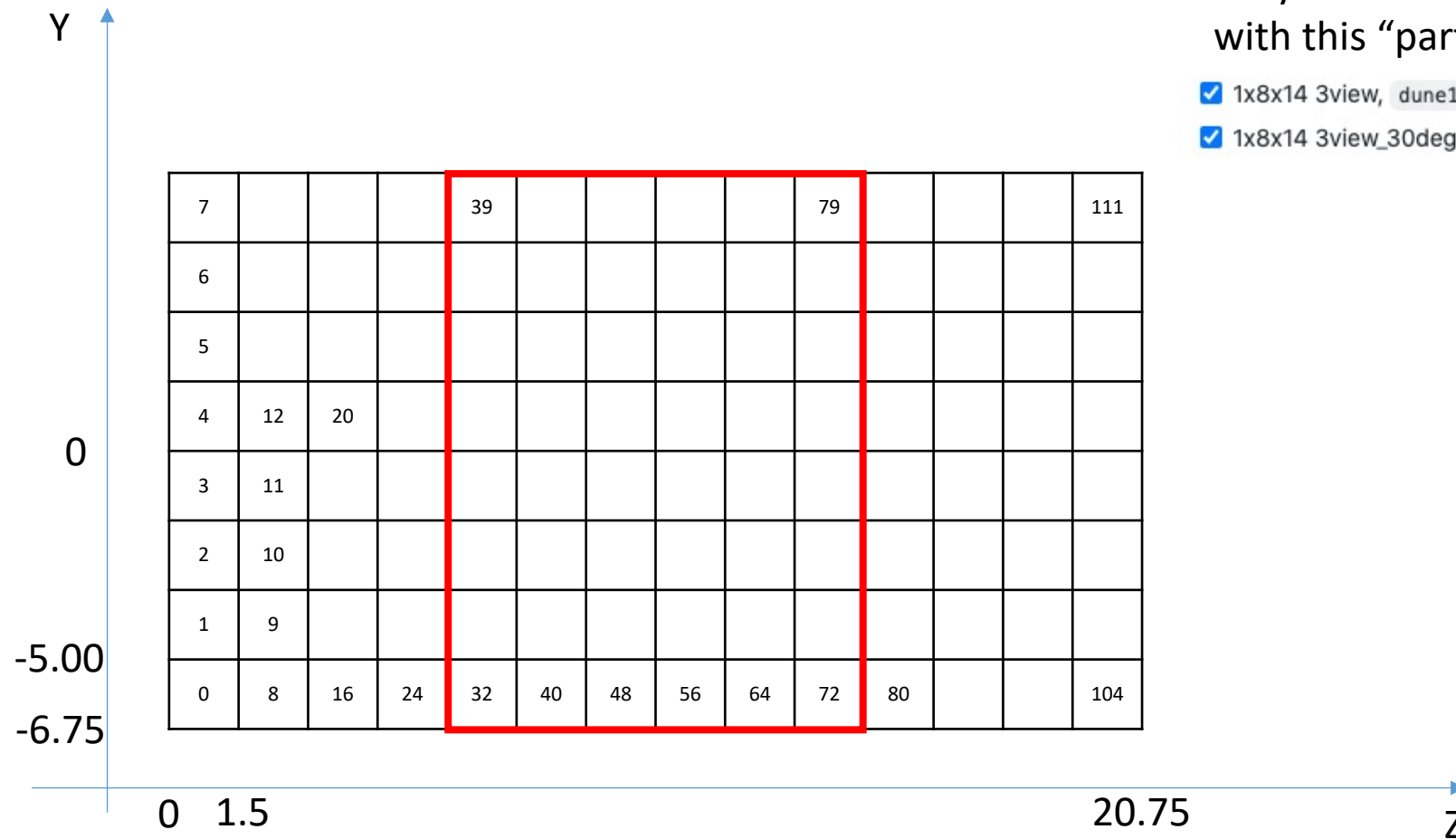
- ✓ nf-sp.jsonnet, correct trace tags

wirecell_dune.fcl

combined workflow:

- ✓ 1x8x6 3view, `dune10kt_dunefd_vert drift_1x8x6_3view_sim_nfsp`
- ✓ 1x8x6 3view_30deg, `dune10kt_dunefd_vert drift_1x8x6_3view_30deg_sim_nfsp`
- ✓ 1x8x14 3view, `dune10kt_dunefd_vert drift_1x8x14_3view_sim_nfsp`
- ✓ 1x8x14 3view_30deg, `dune10kt_dunefd_vert drift_1x8x14_3view_30deg_sim_nfsp`

Process partial CRMs



- Currently configured to process central 6 columns
- Only the two combined configurations are updated with this “partial” processing

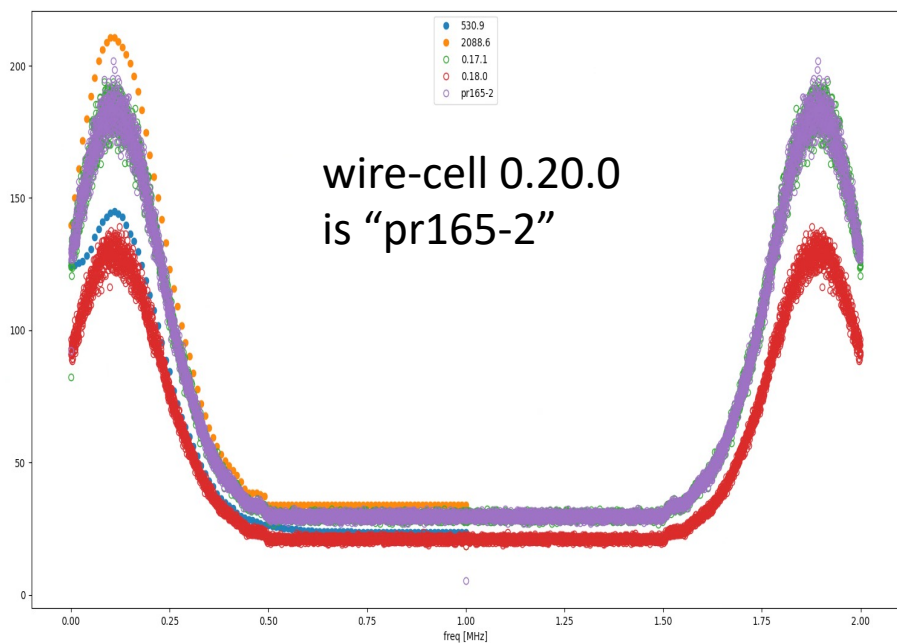
1x8x14 3view, `dune10kt_dunefd_vert drift_1x8x14_3view_sim_nfsp`

1x8x14 3view_30deg, `dune10kt_dunefd_vert drift_1x8x14_3view_30deg_sim_nfsp`

validation of TPC simulation in wire-cell 0.20.0

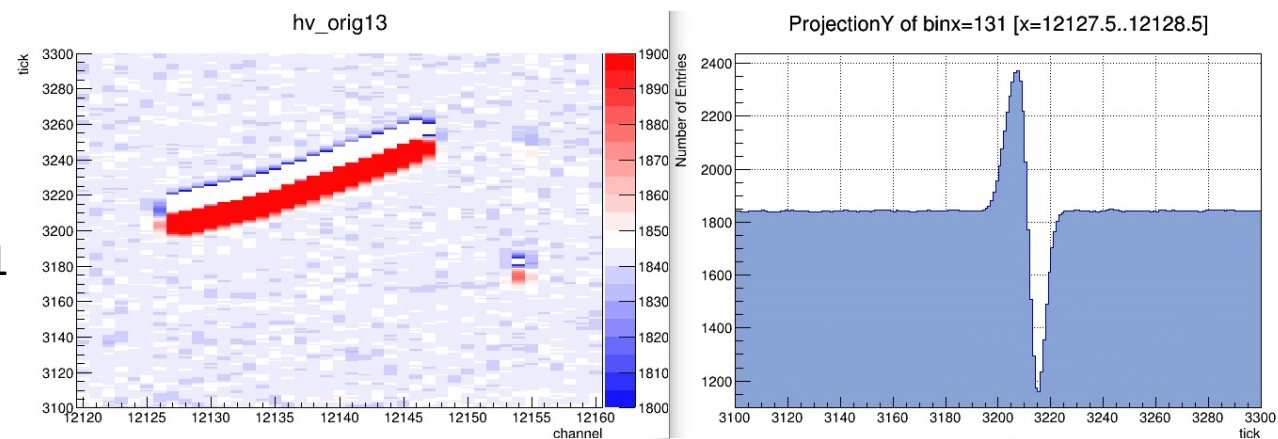
output noise spectra from 0.17.1 and 0.20.0 are consistent with interpolated input, 0.18.0 is lower by $\sqrt{2}$

noise simulation



signal simulation

0.17.1



0.20.0

