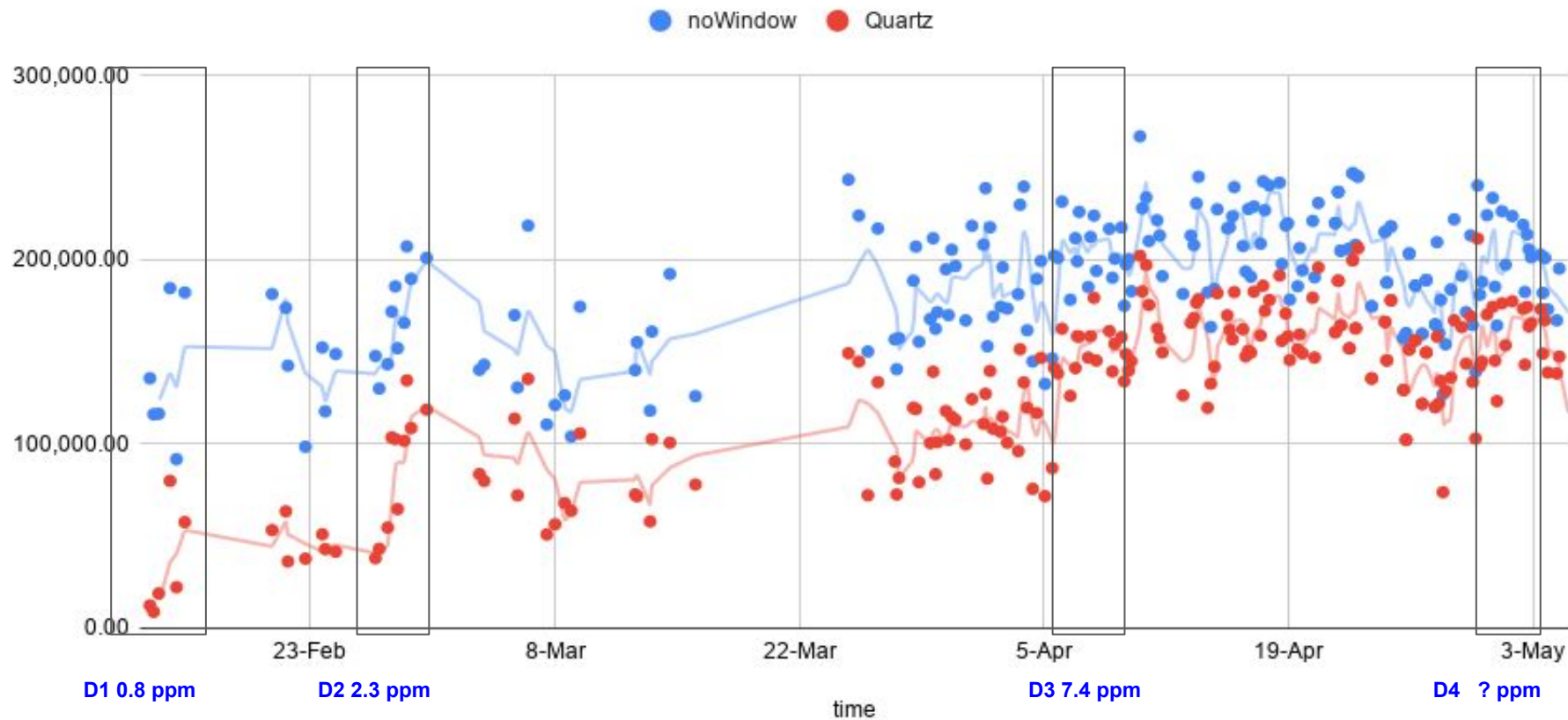


ProtoDUNE-SP

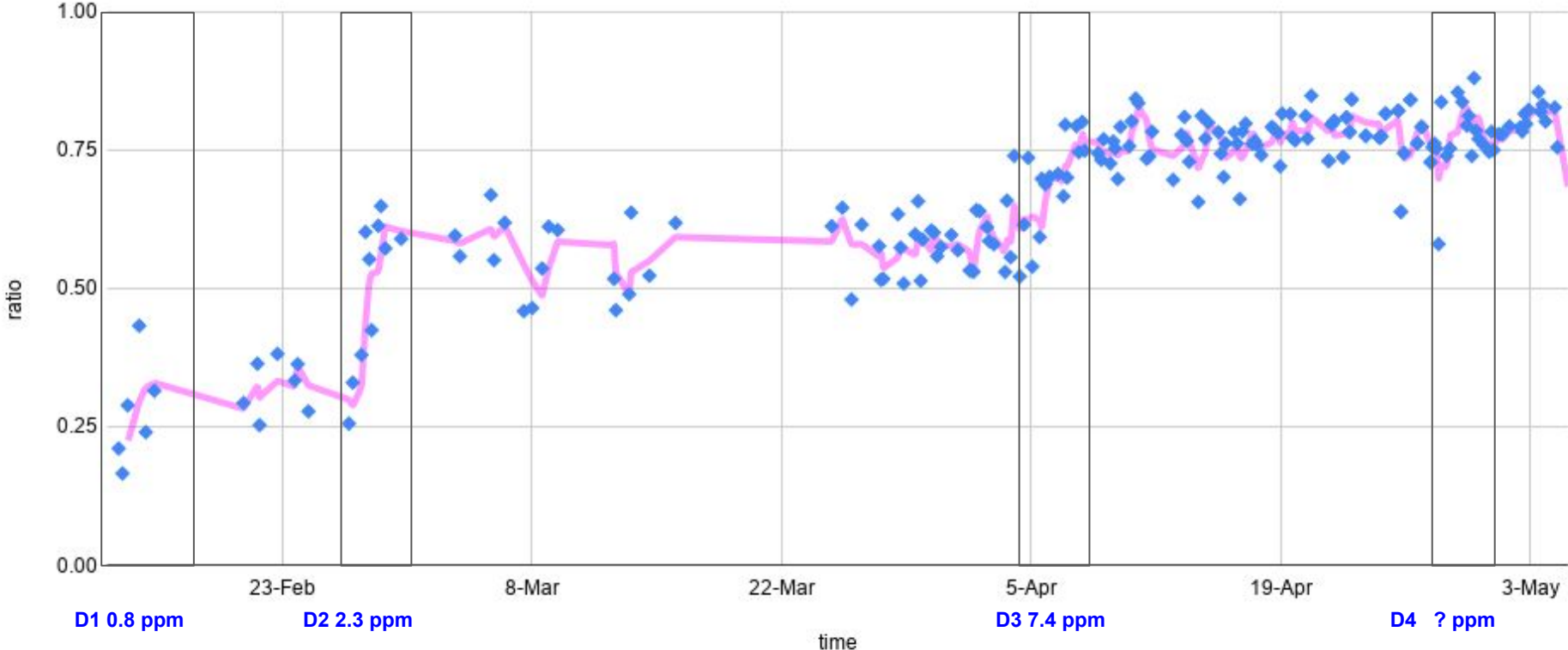
Standalone Arapuca

Furkan Dolek, Fatma Boran

non and Quartz

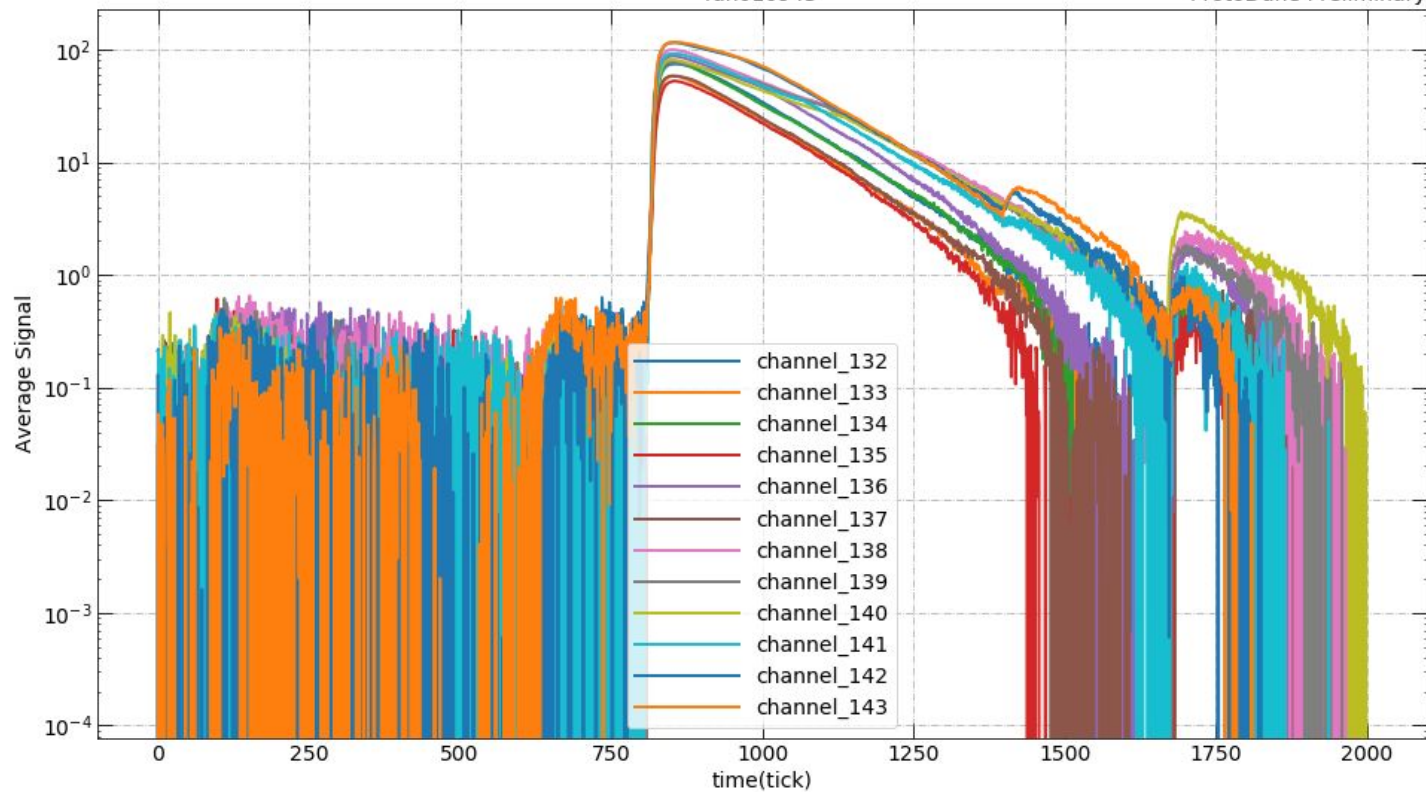


ratio vs. time



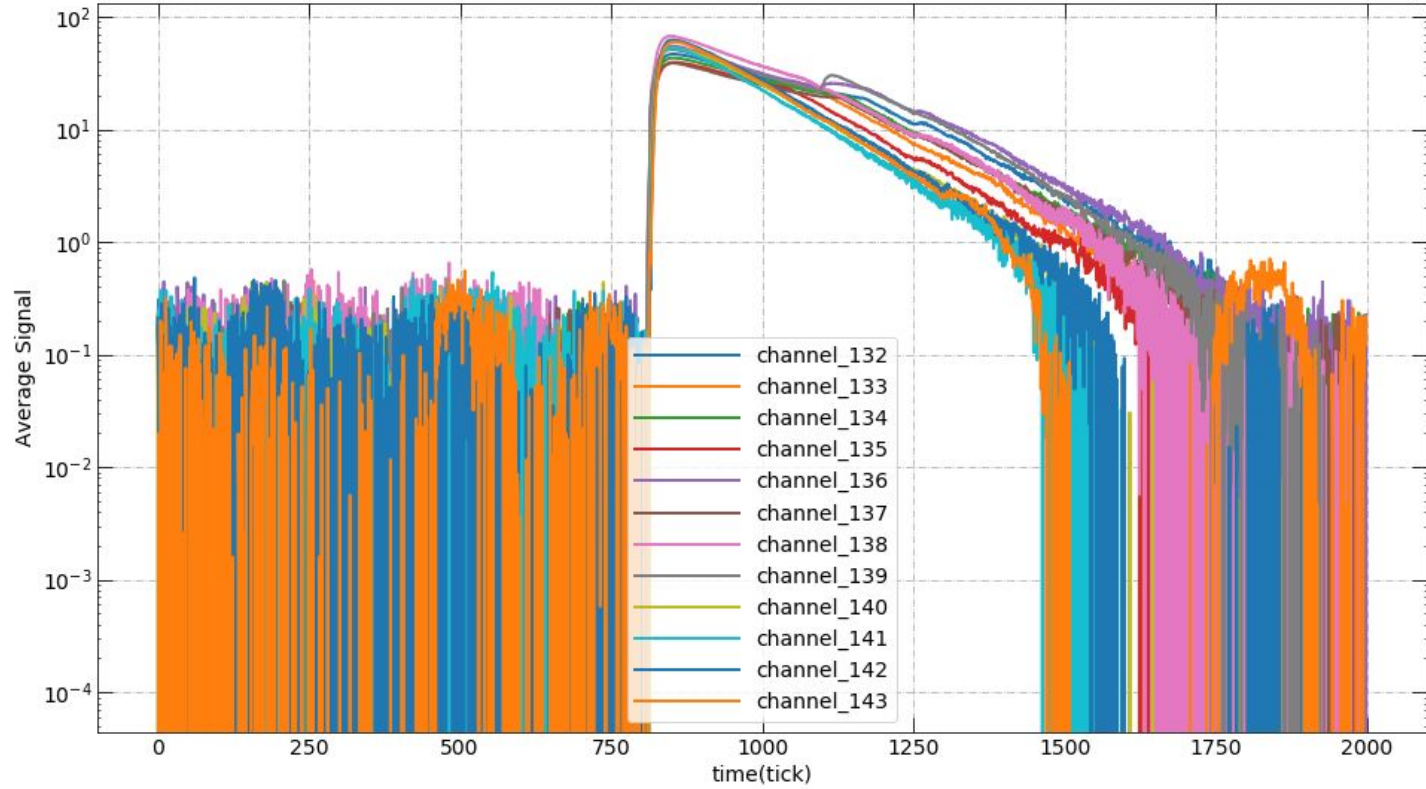
run010943

ProtoDune Preliminary



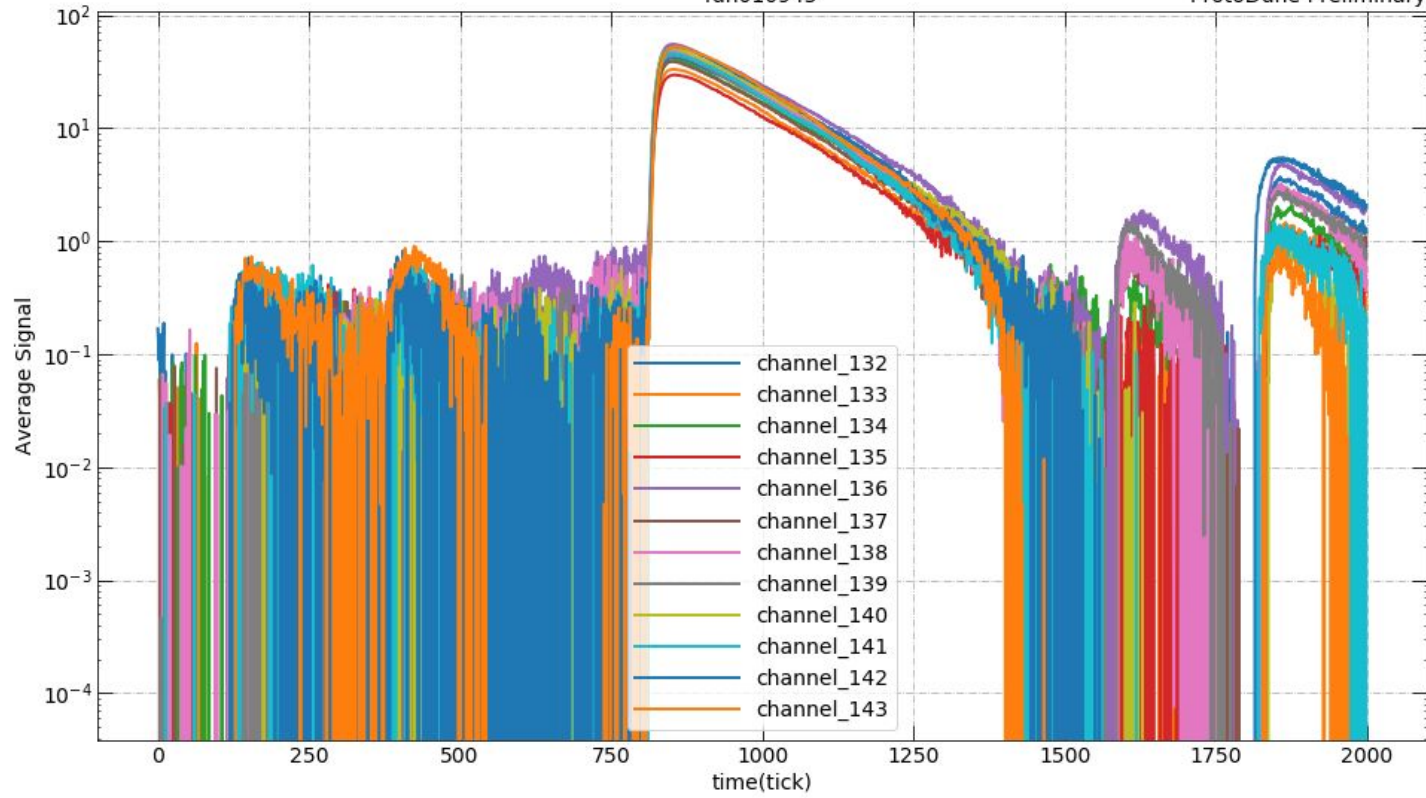
run010944

ProtoDune Preliminary



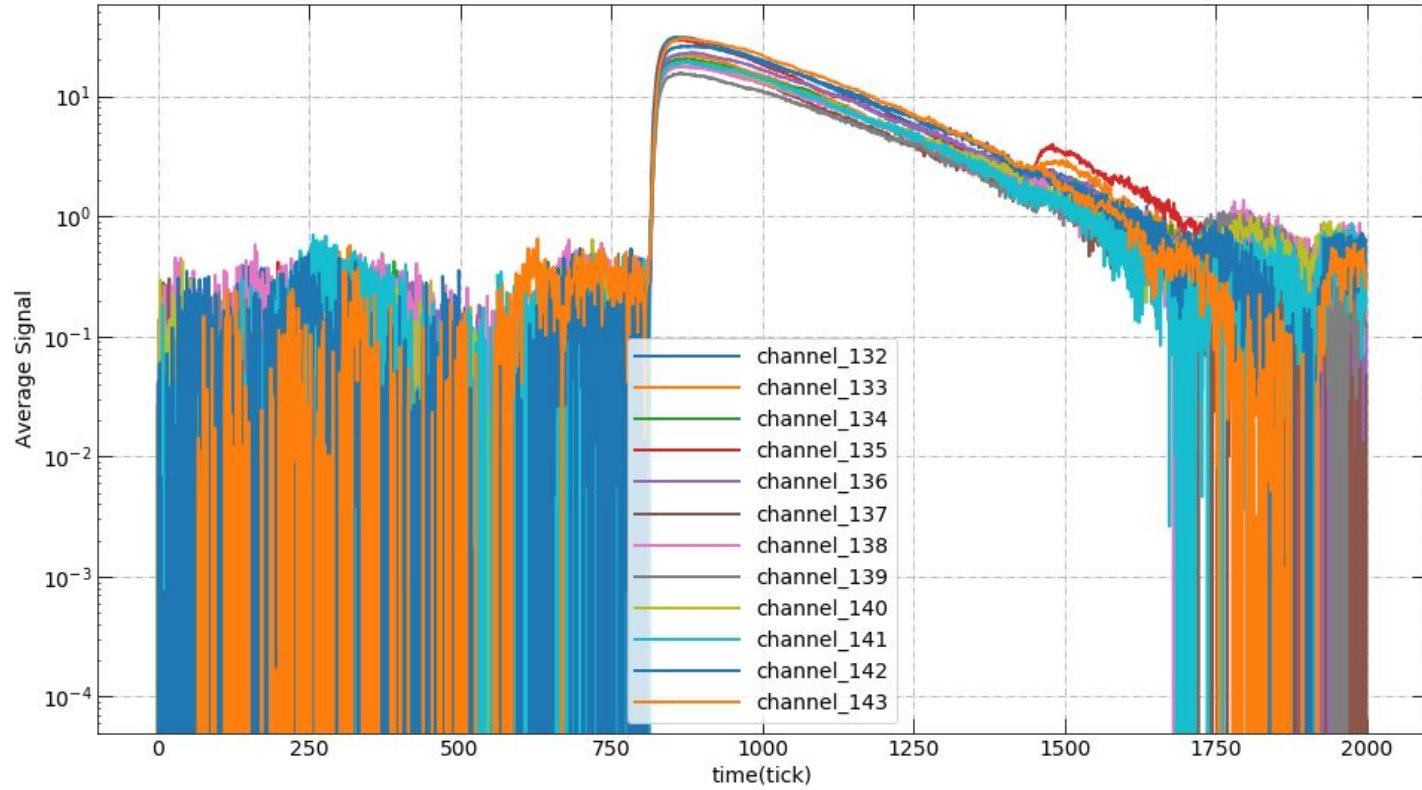
run010945

ProtoDune Preliminary



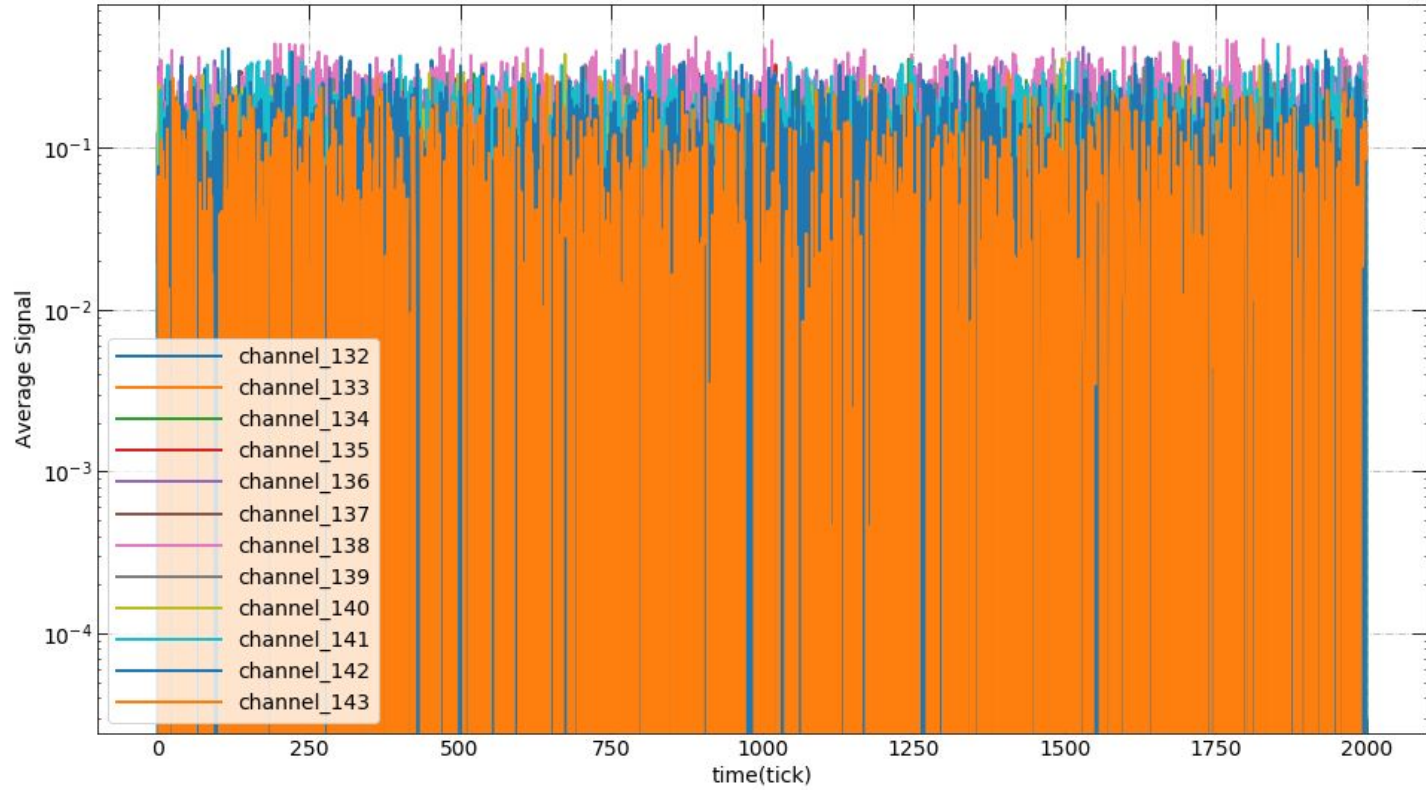
run010948

ProtoDune Preliminary



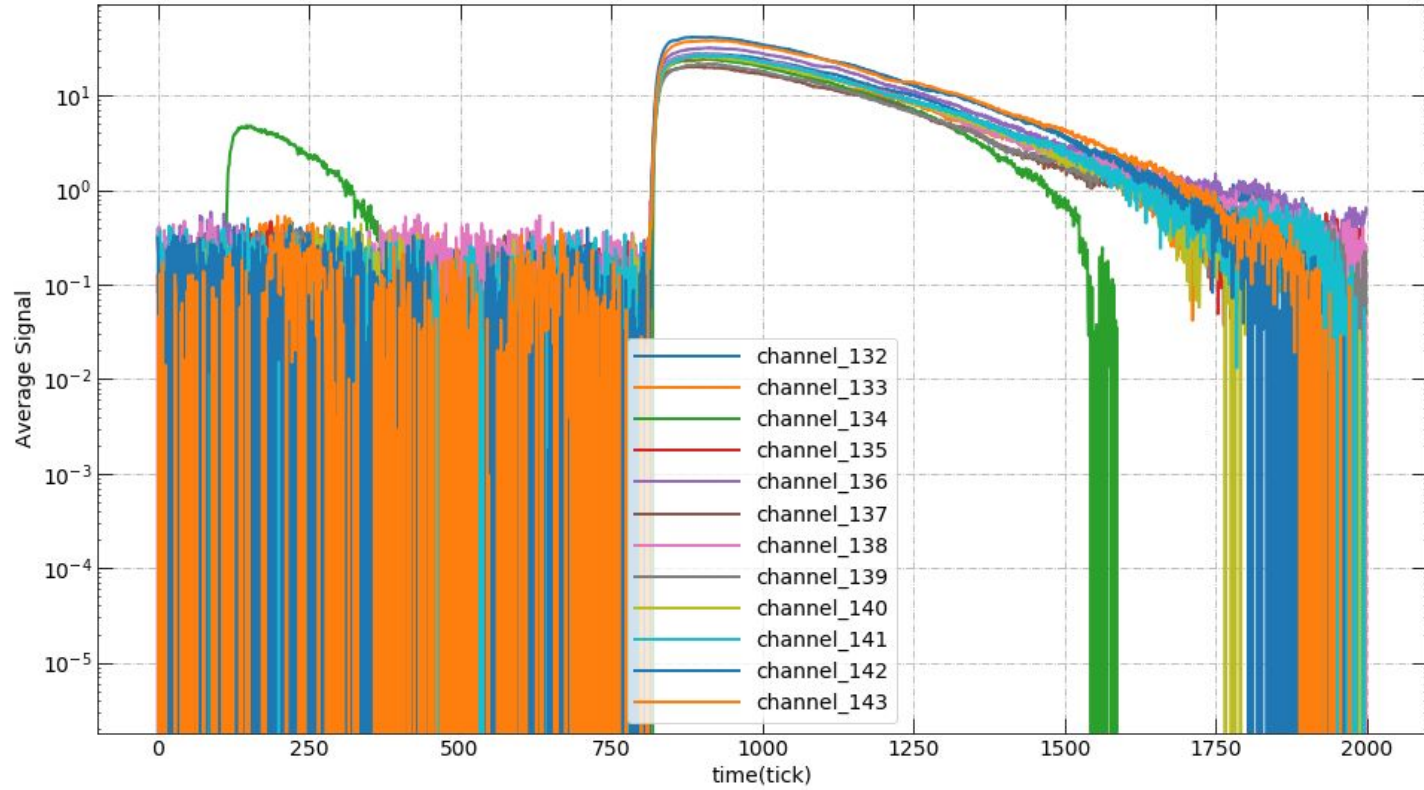
run010950

ProtoDune Preliminary



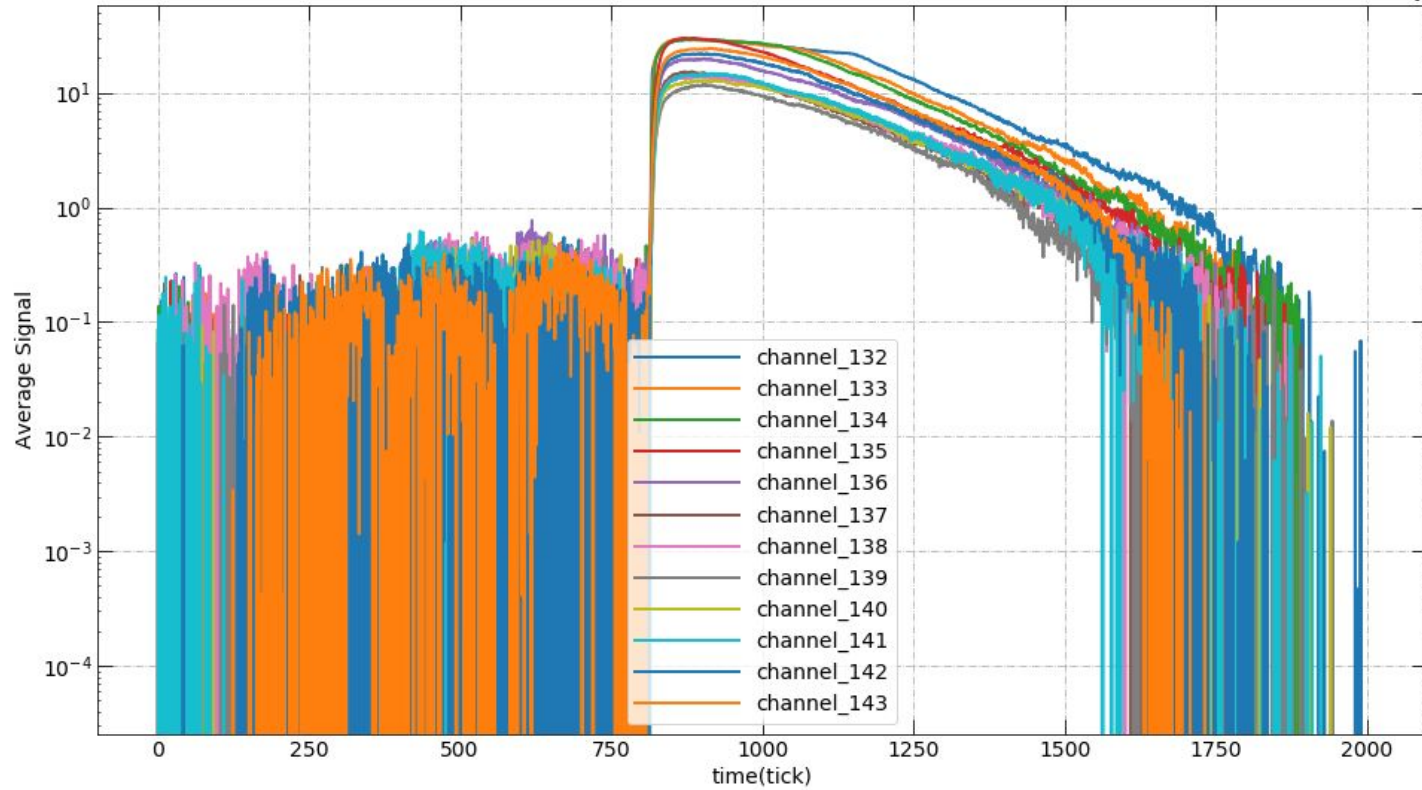
run010951

ProtoDune Preliminary



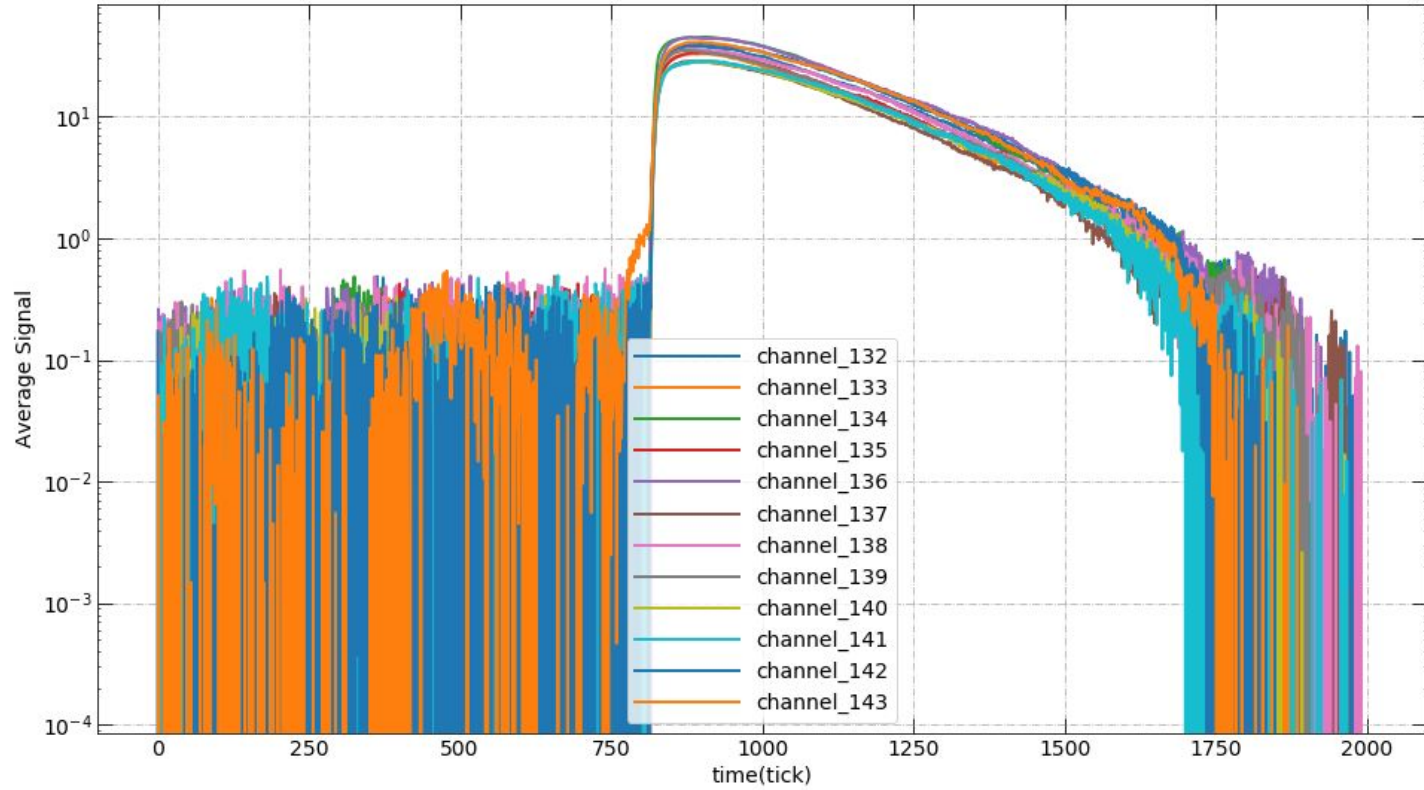
run010952

ProtoDune Preliminary



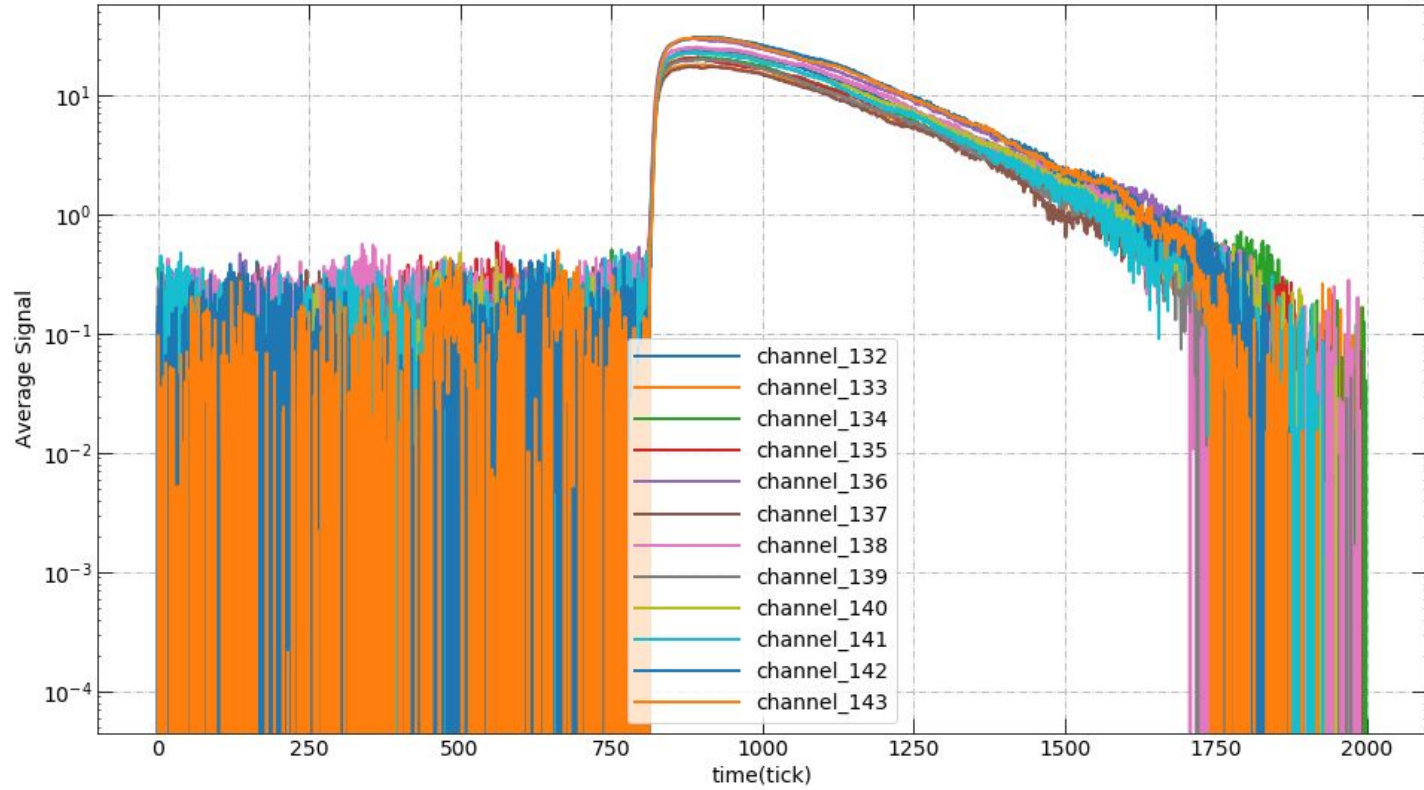
run010953

ProtoDune Preliminary



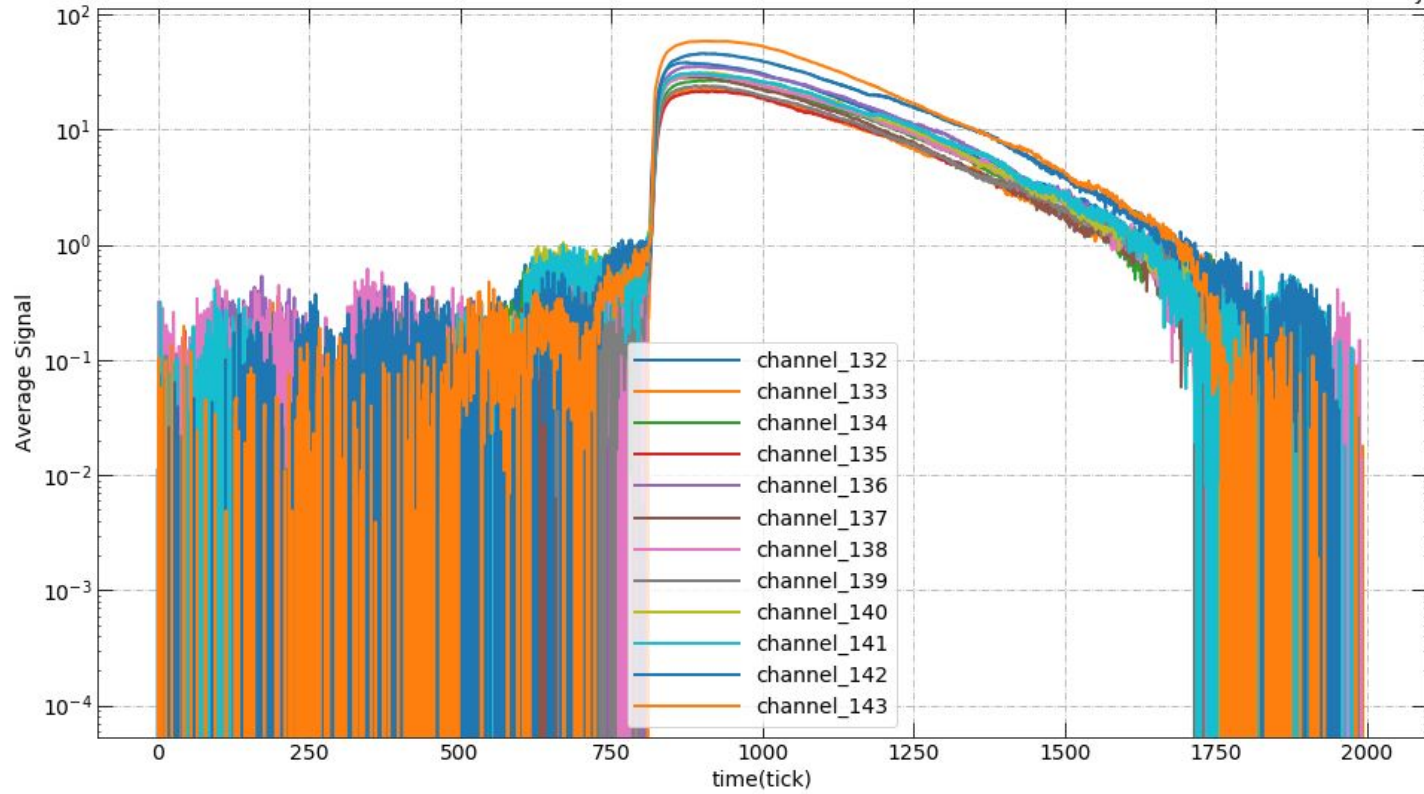
run010954

ProtoDune Preliminary



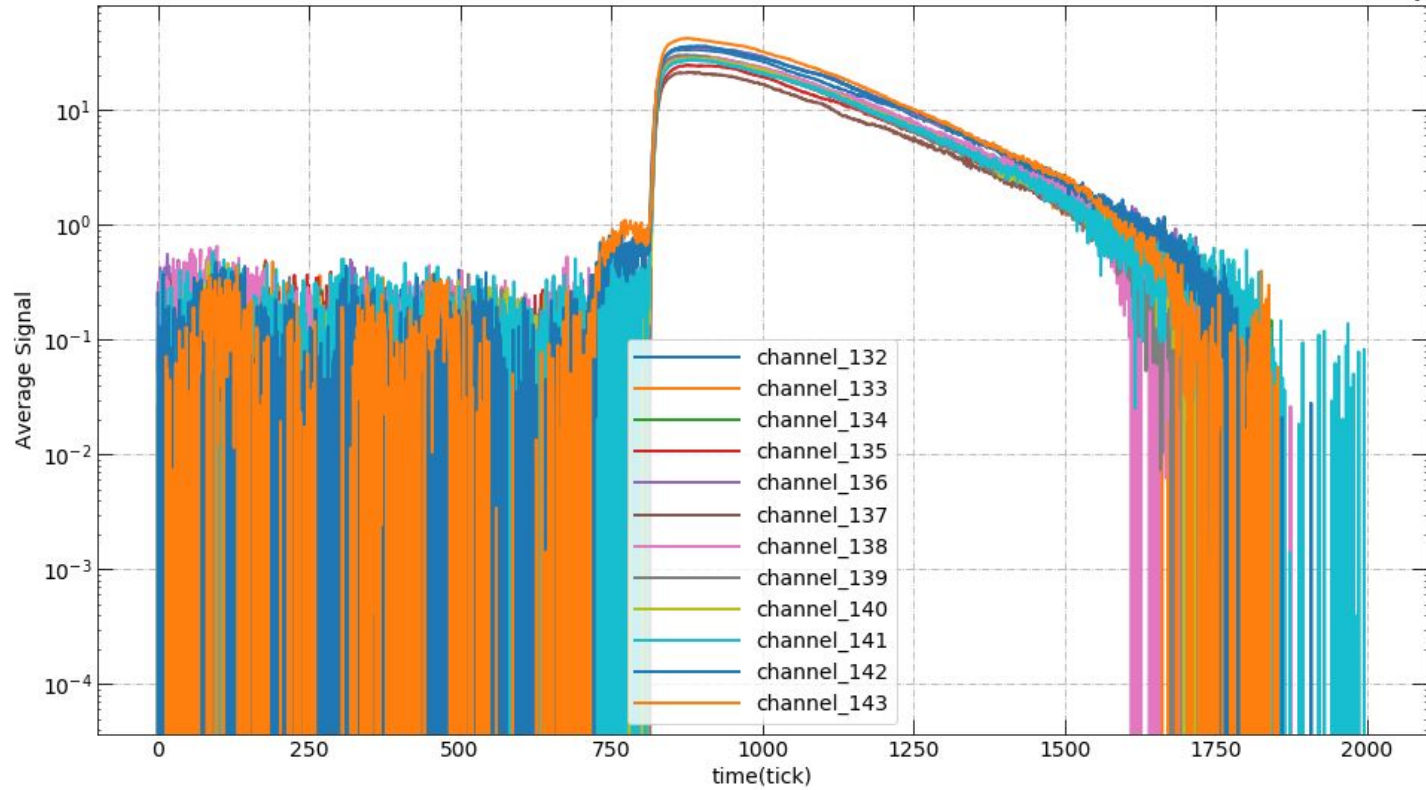
run010960

ProtoDune Preliminary



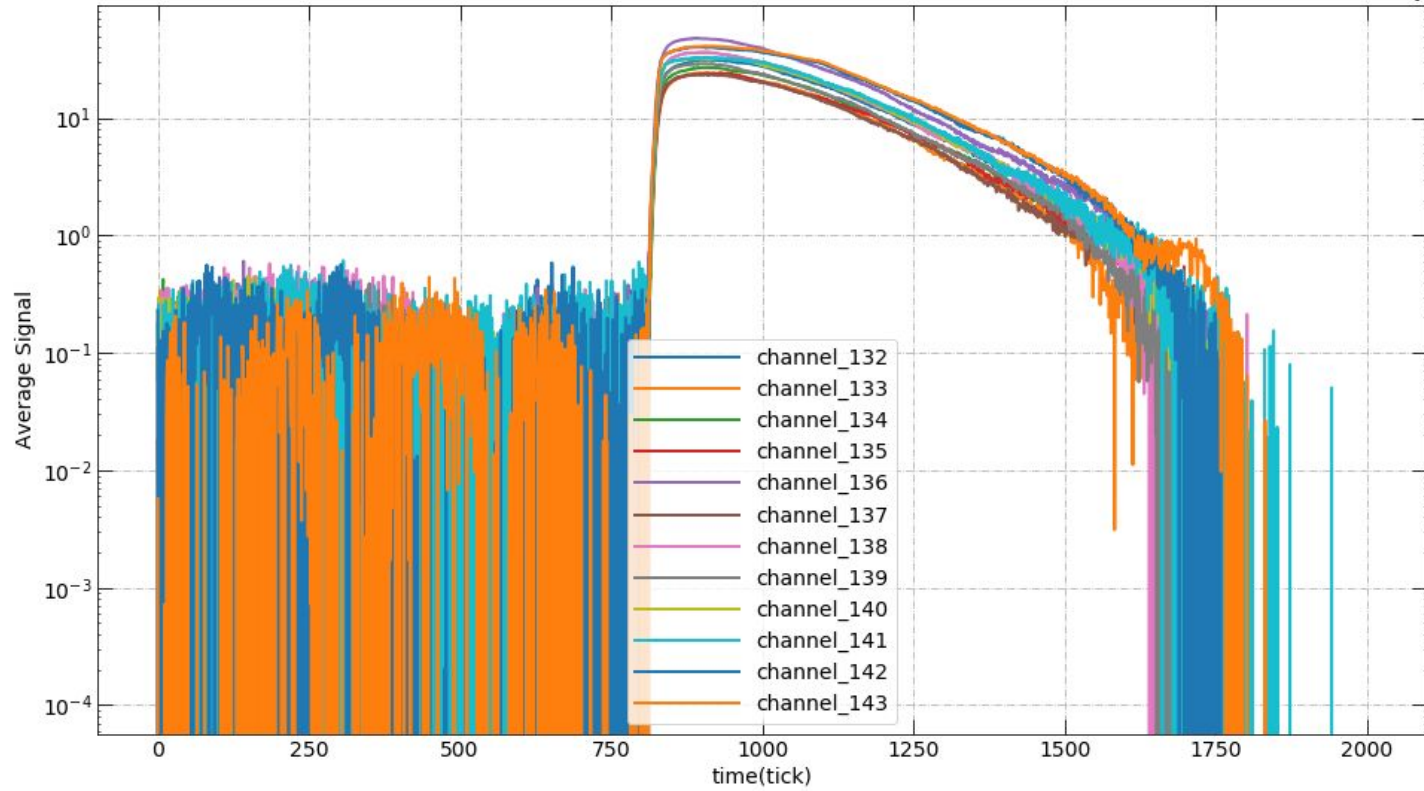
run011009

ProtoDune Preliminary



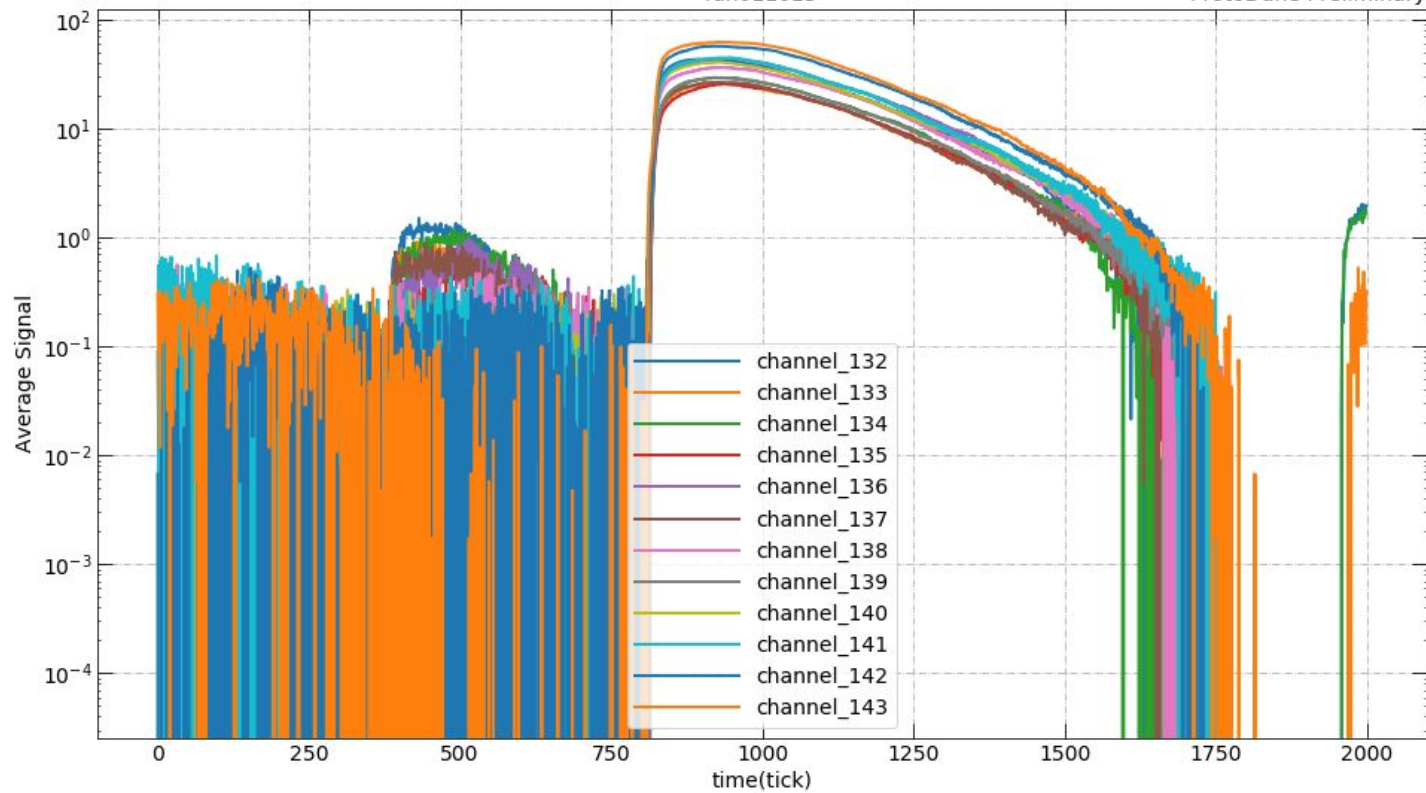
run011012

ProtoDune Preliminary



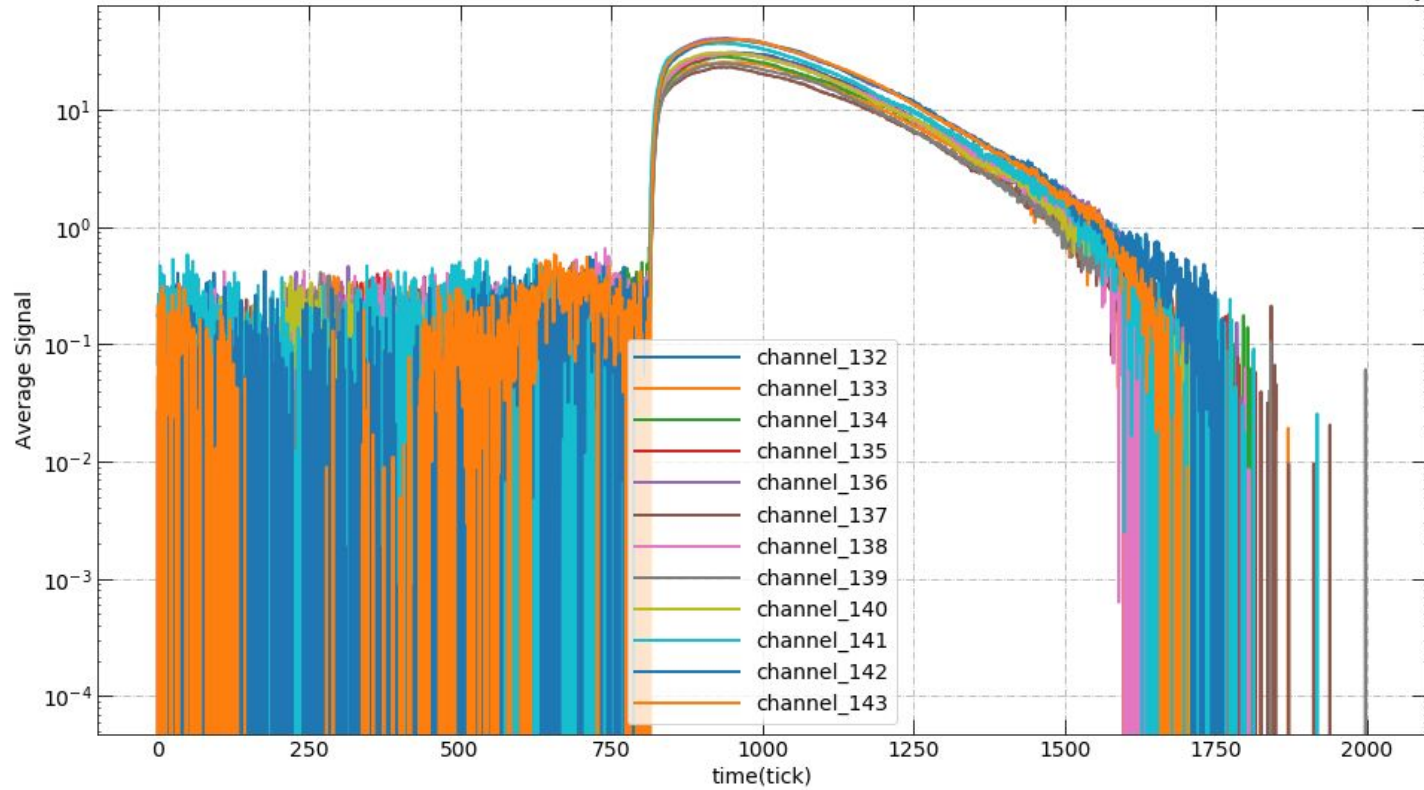
run011013

ProtoDune Preliminary



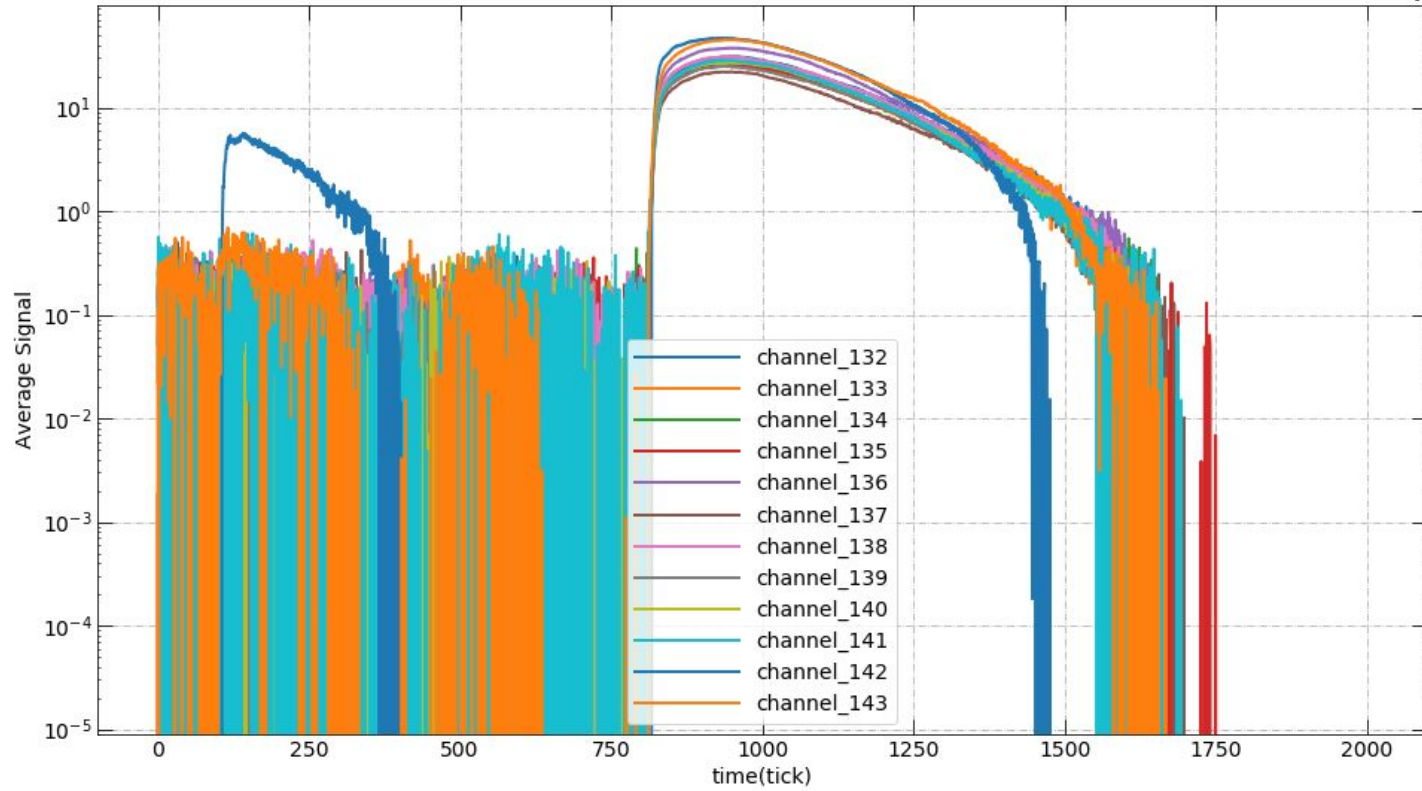
run011016

ProtoDune Preliminary



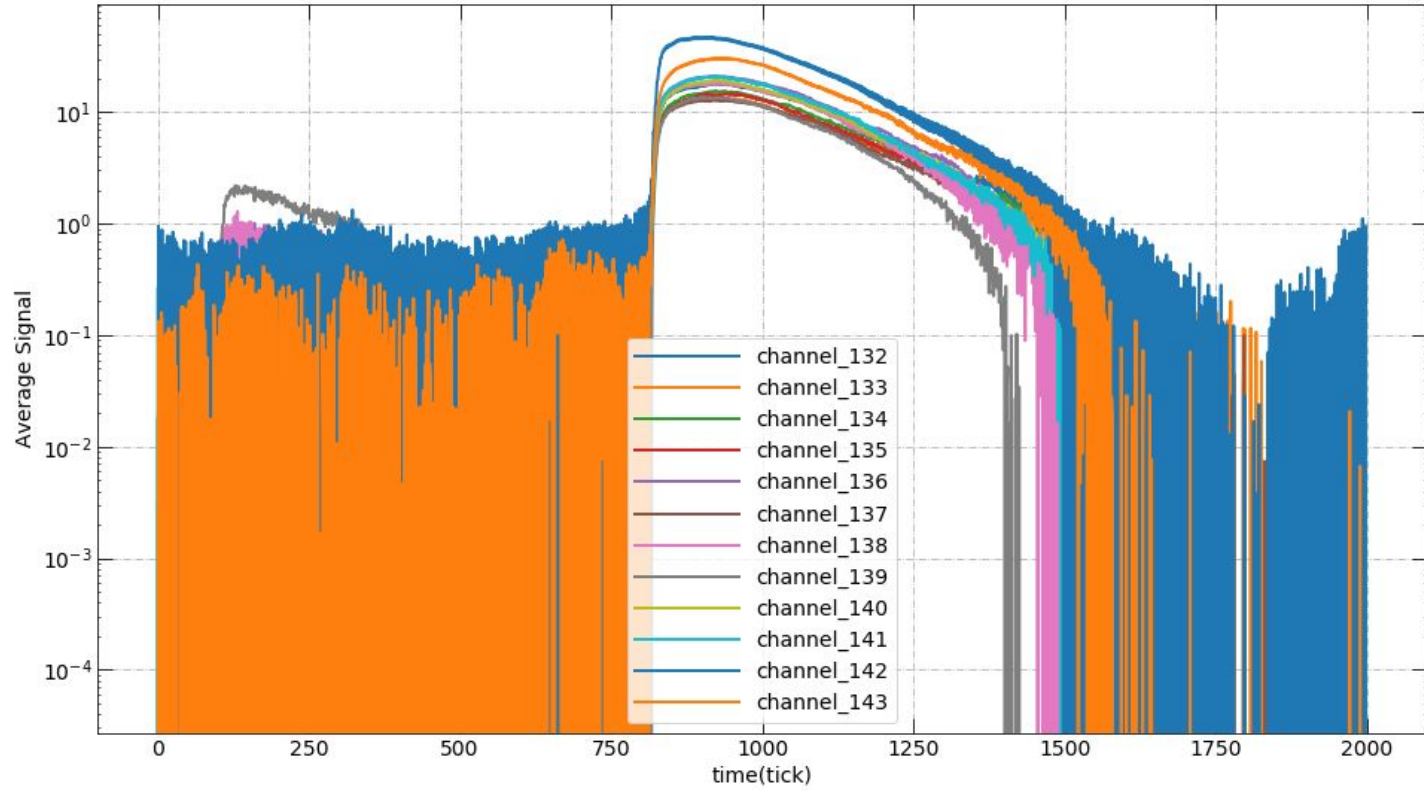
run011022

ProtoDune Preliminary



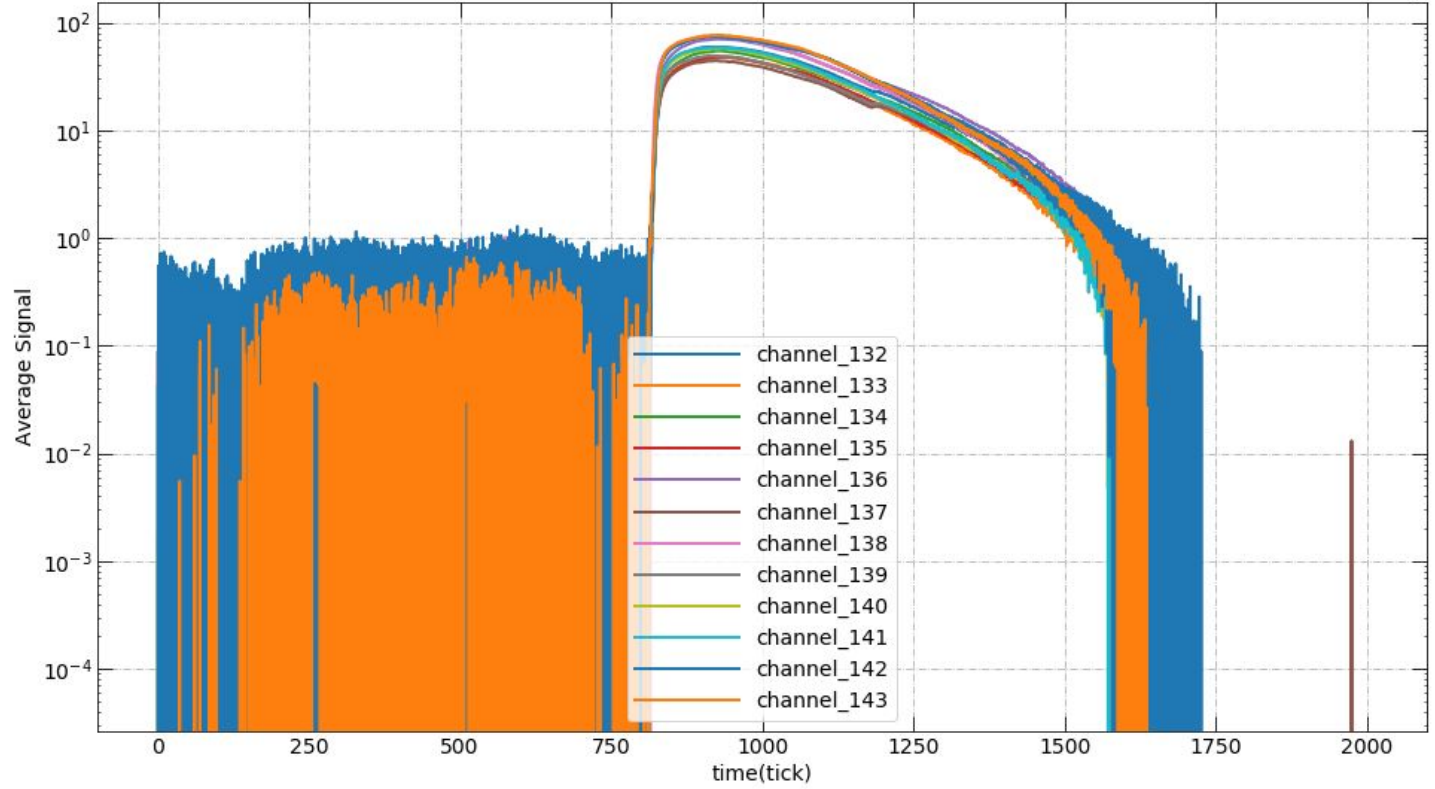
run011089

ProtoDune Preliminary



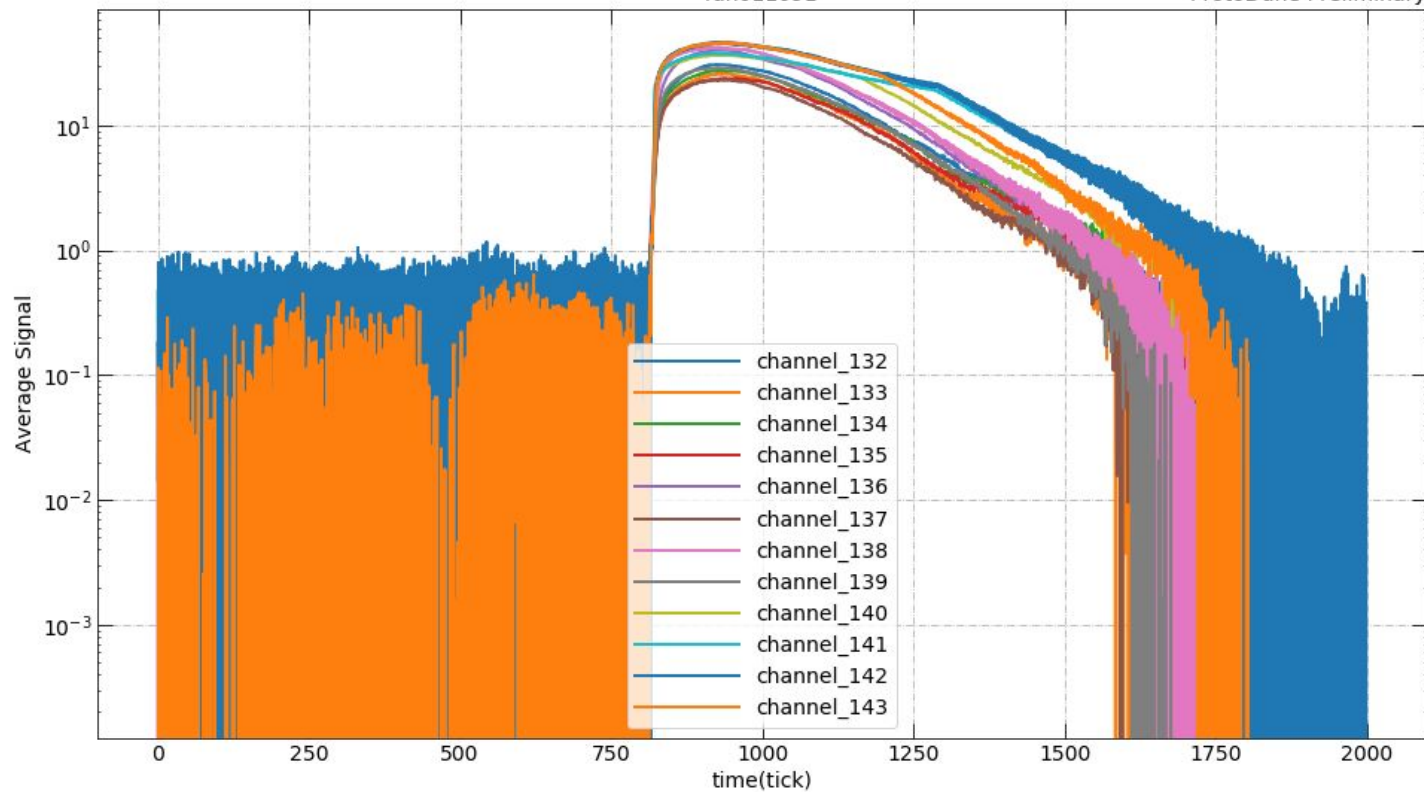
run011090

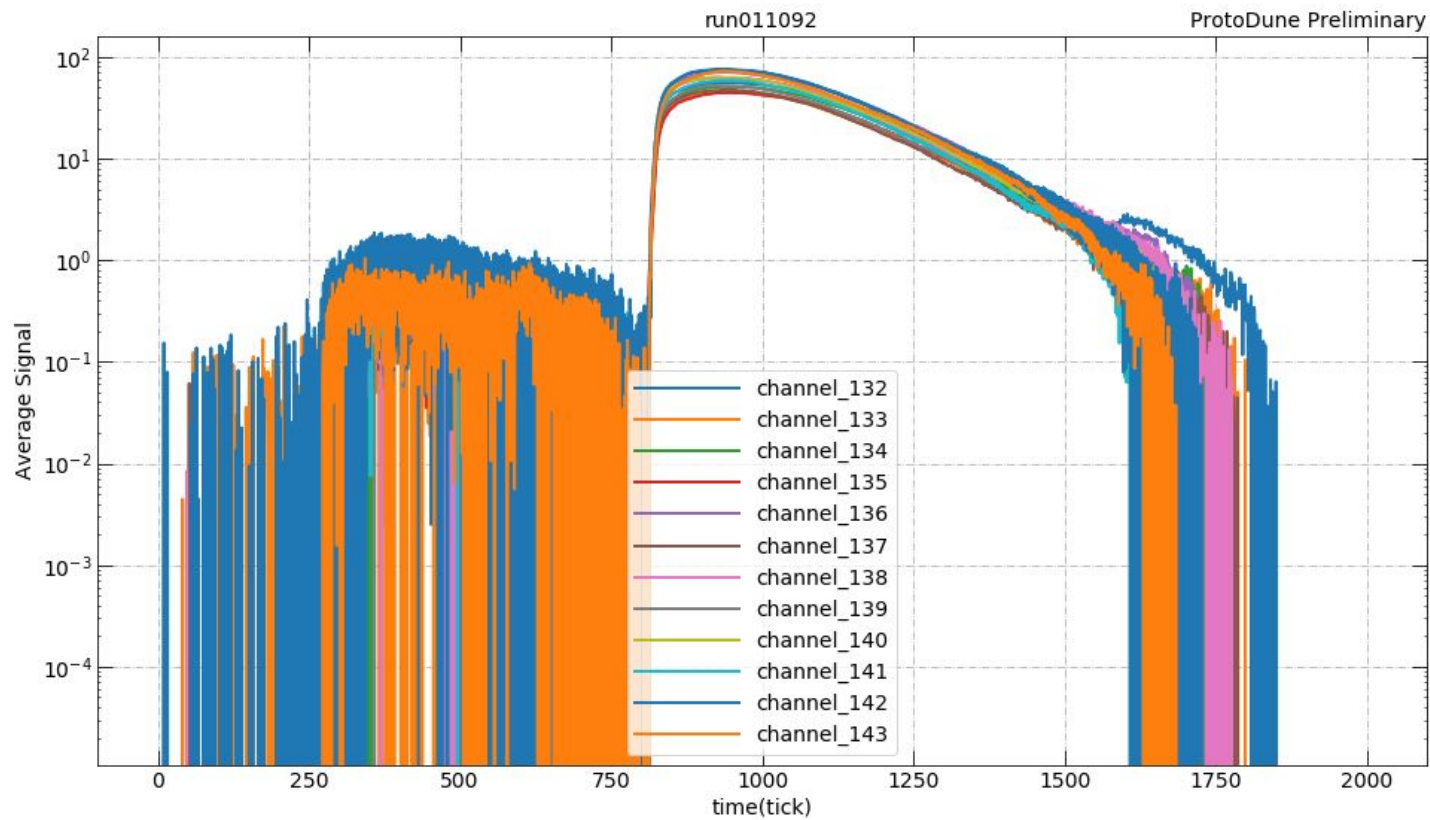
ProtoDune Preliminary



run011091

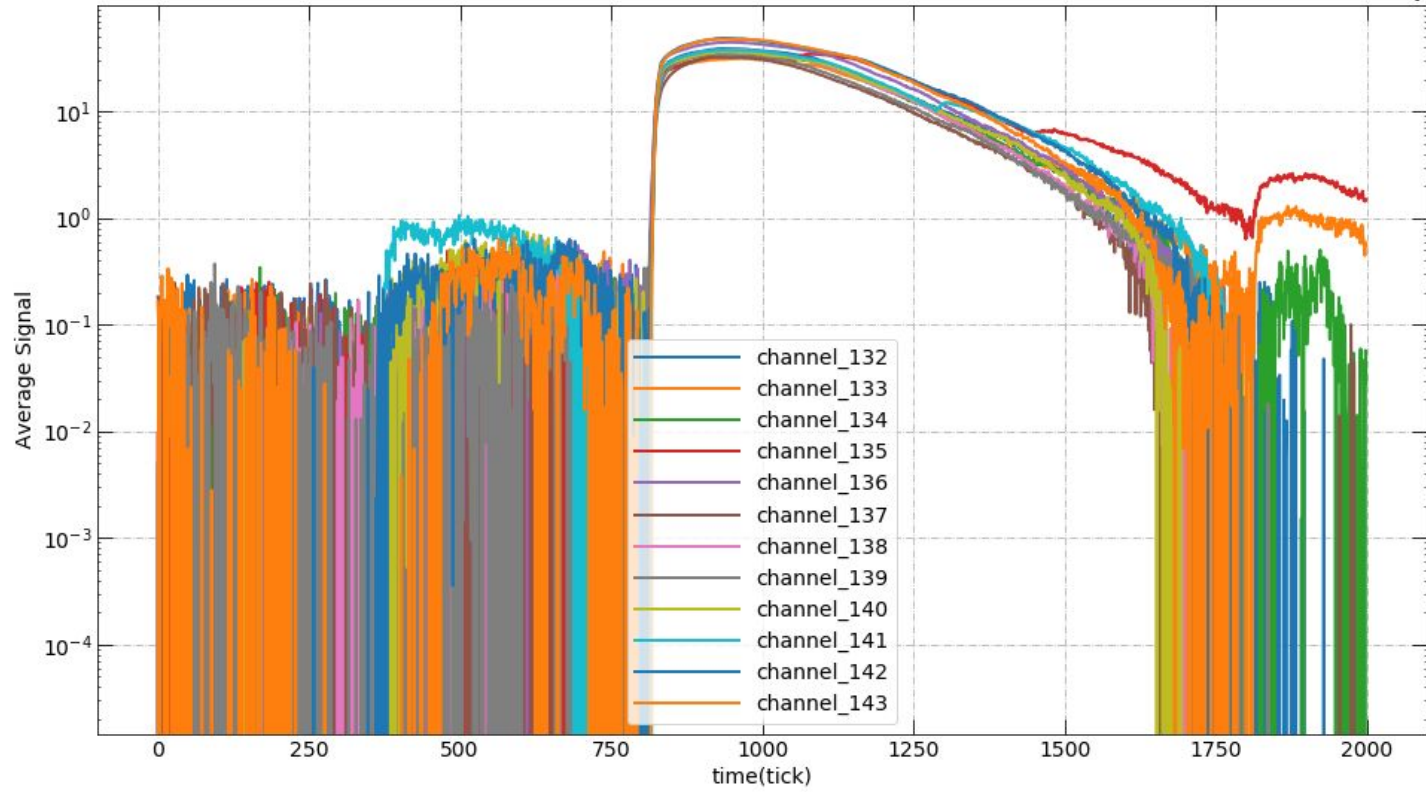
ProtoDune Preliminary

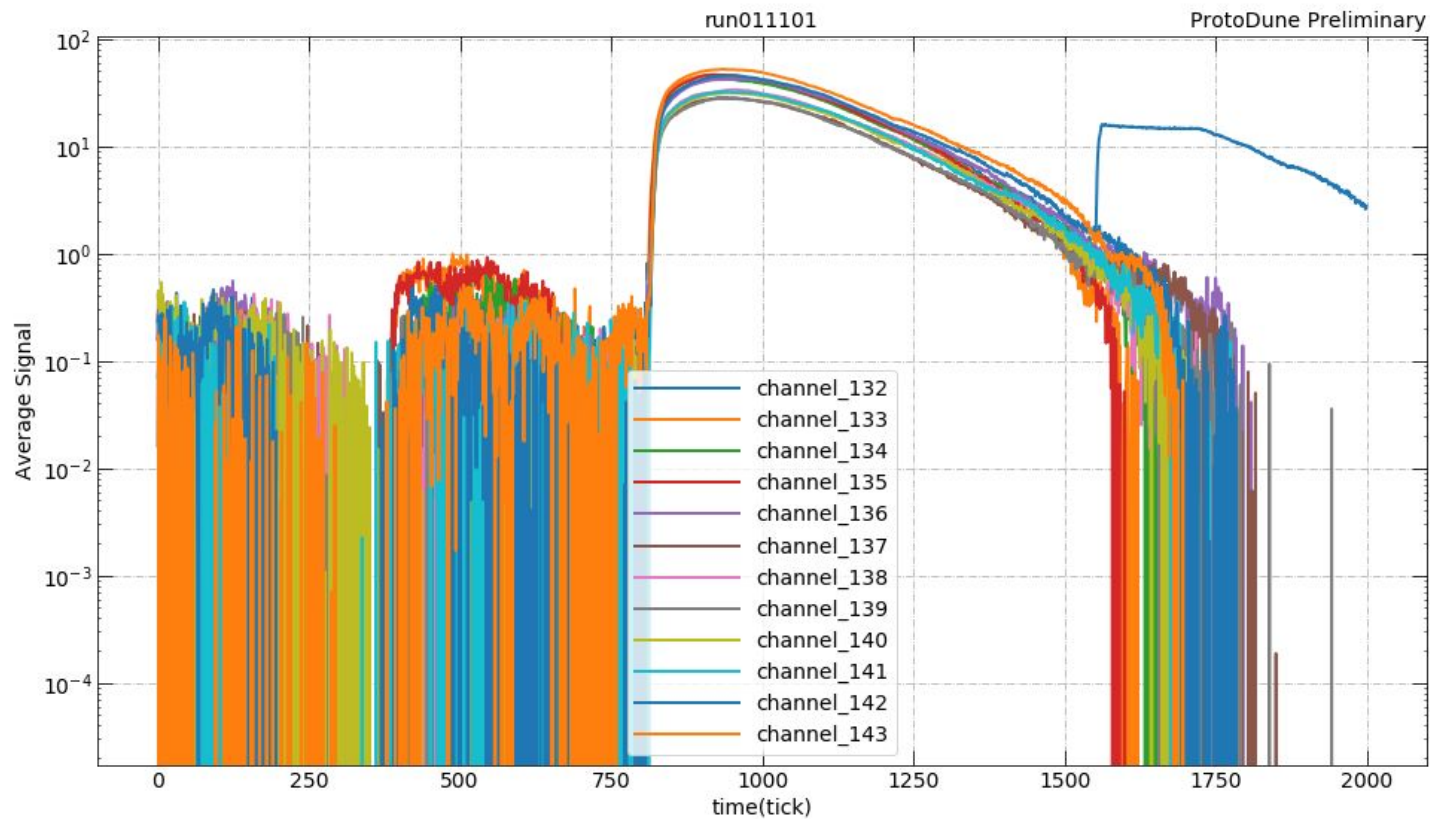




run011100

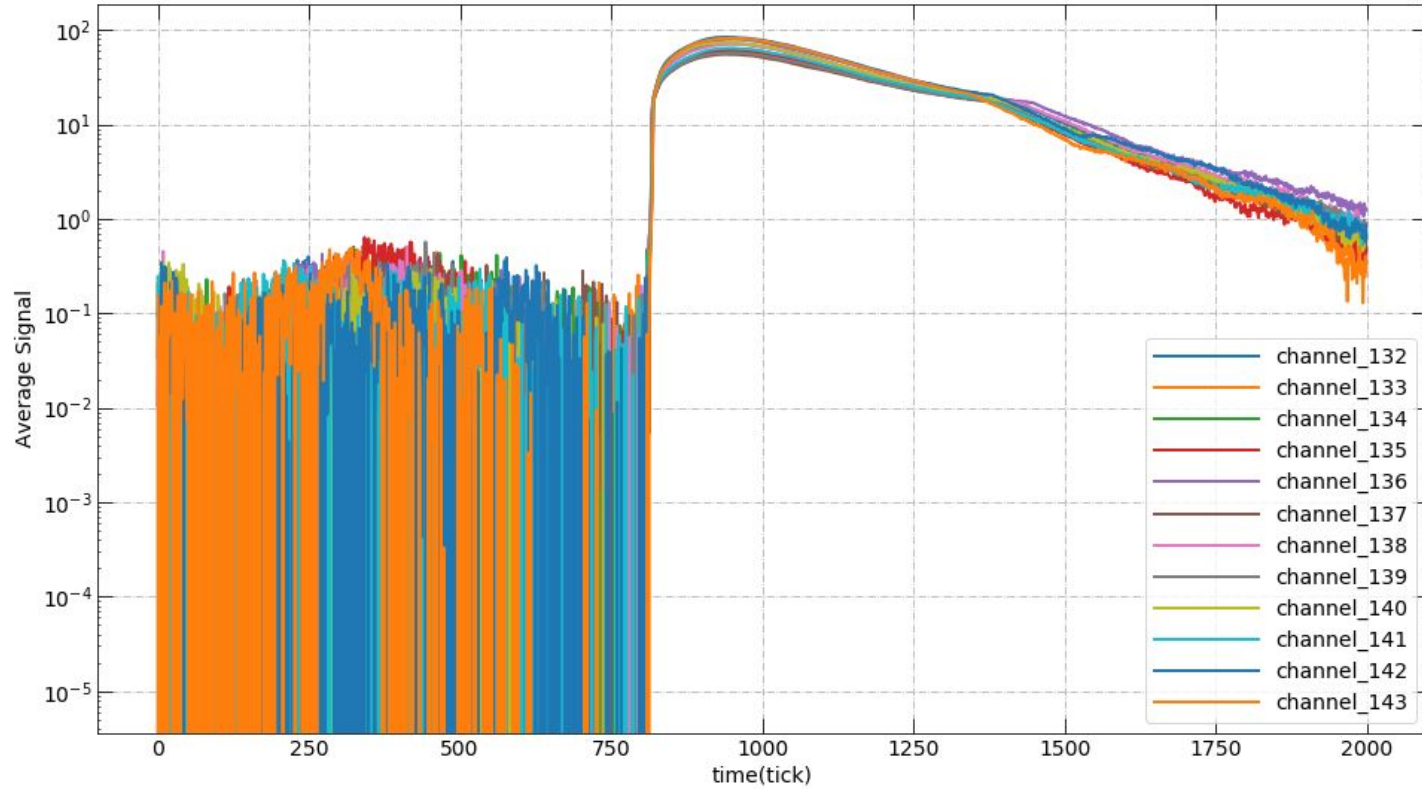
ProtoDune Preliminary

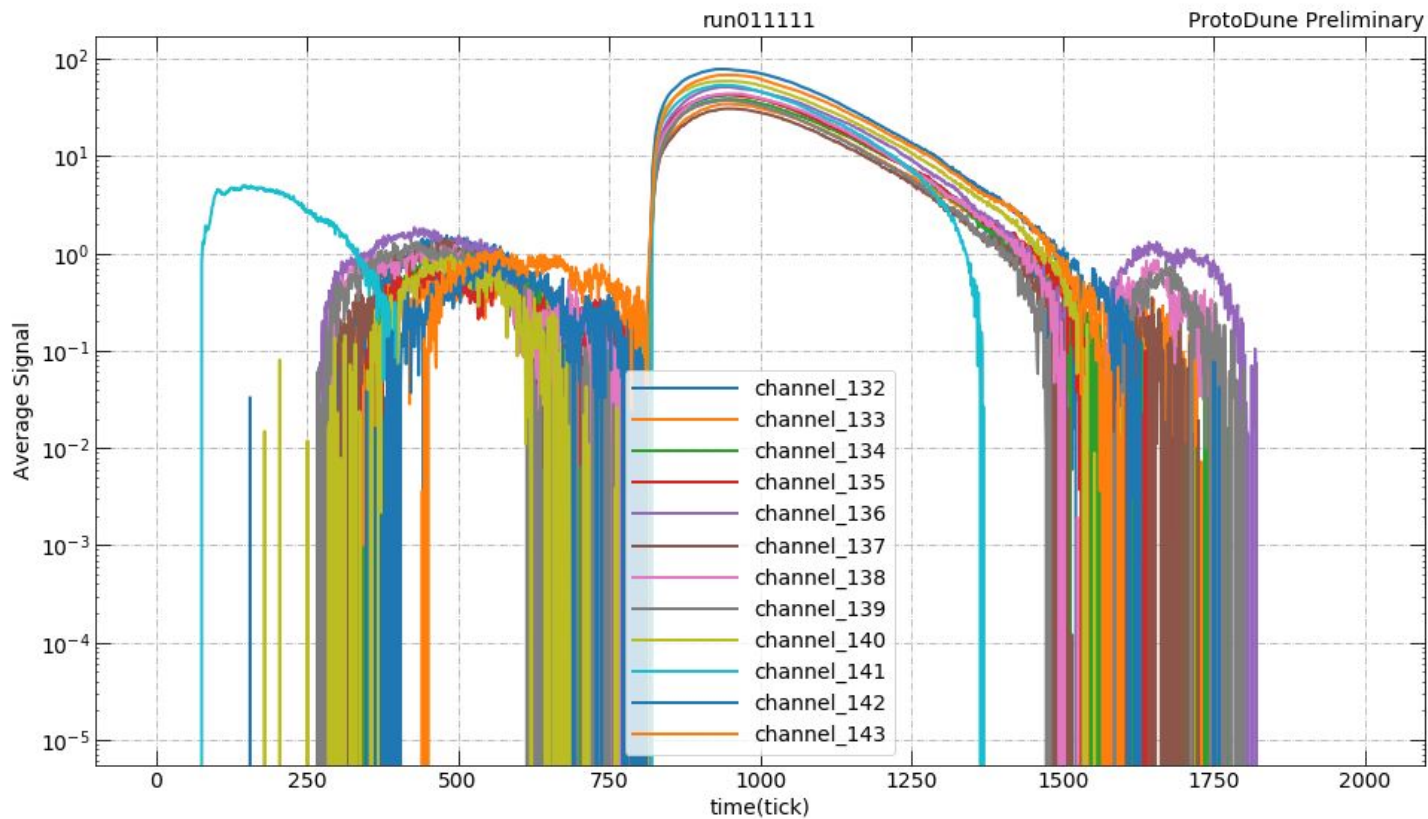


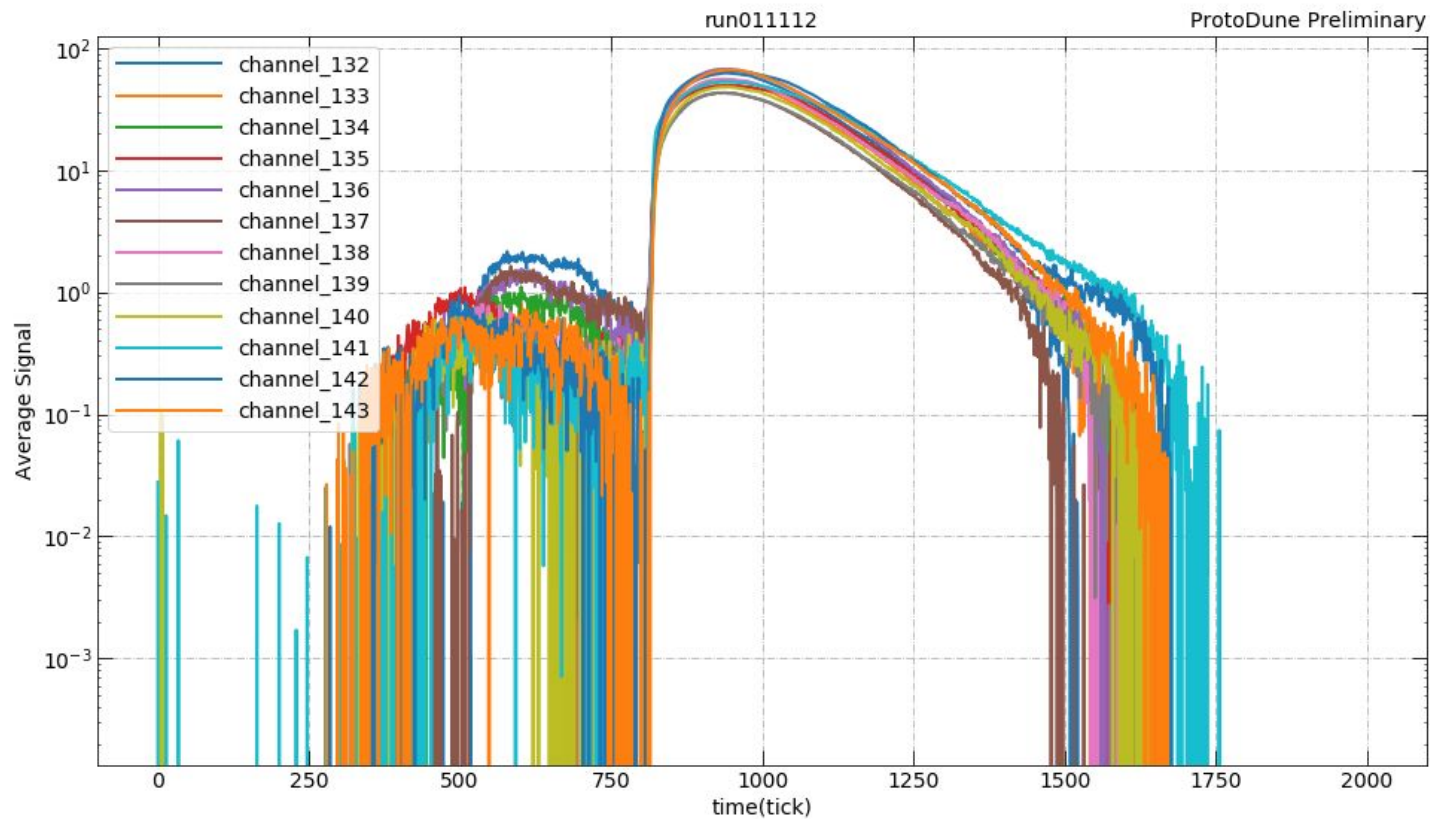


run011109

ProtoDune Preliminary

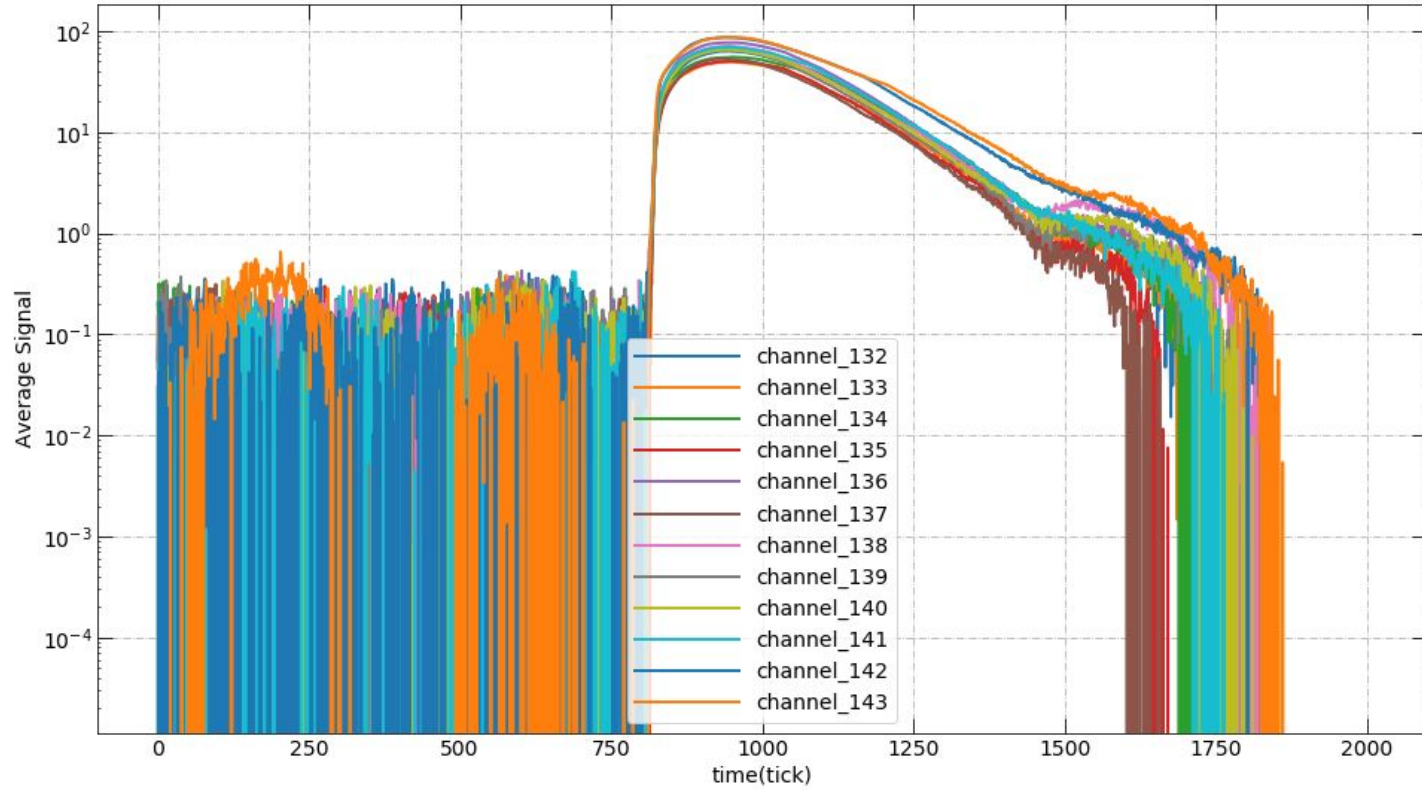






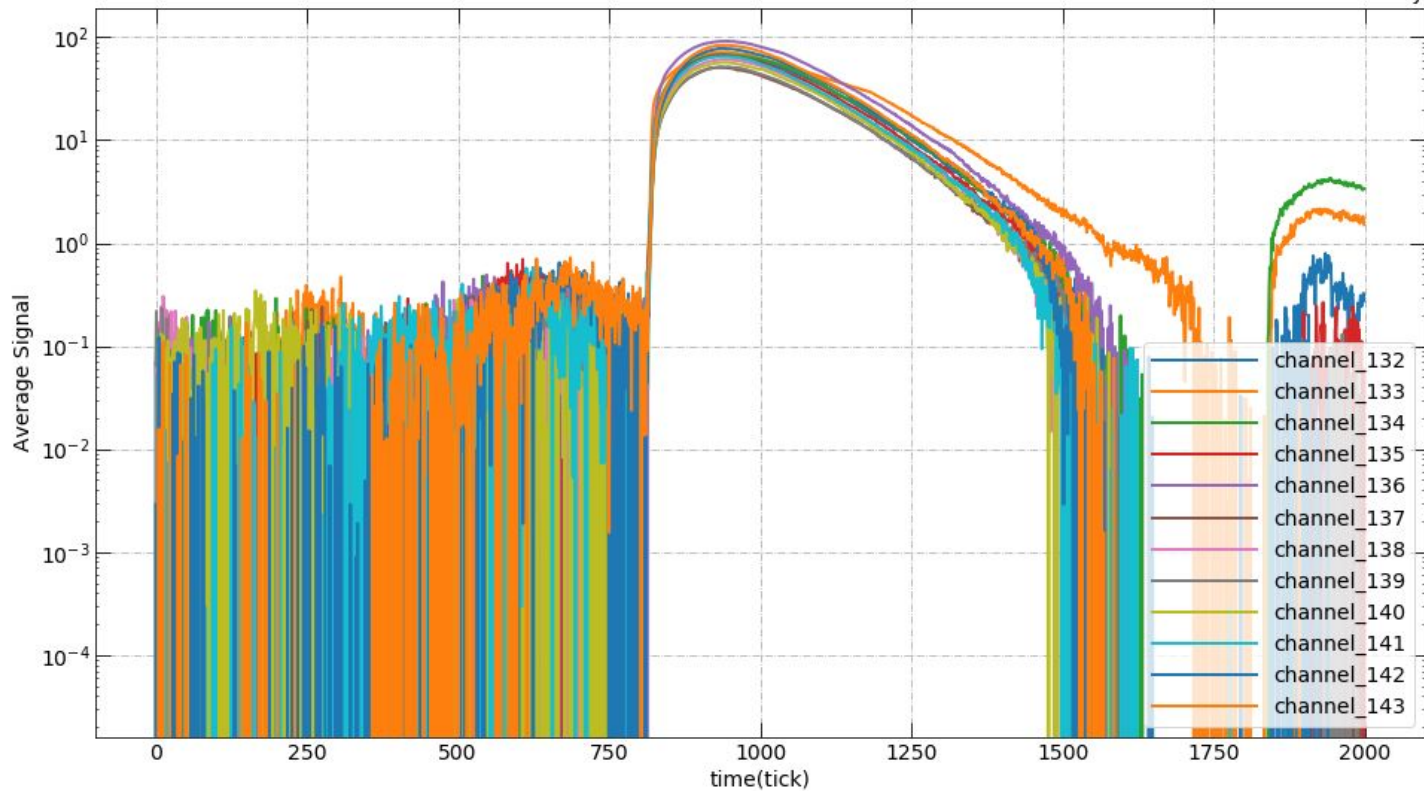
run011115

ProtoDune Preliminary



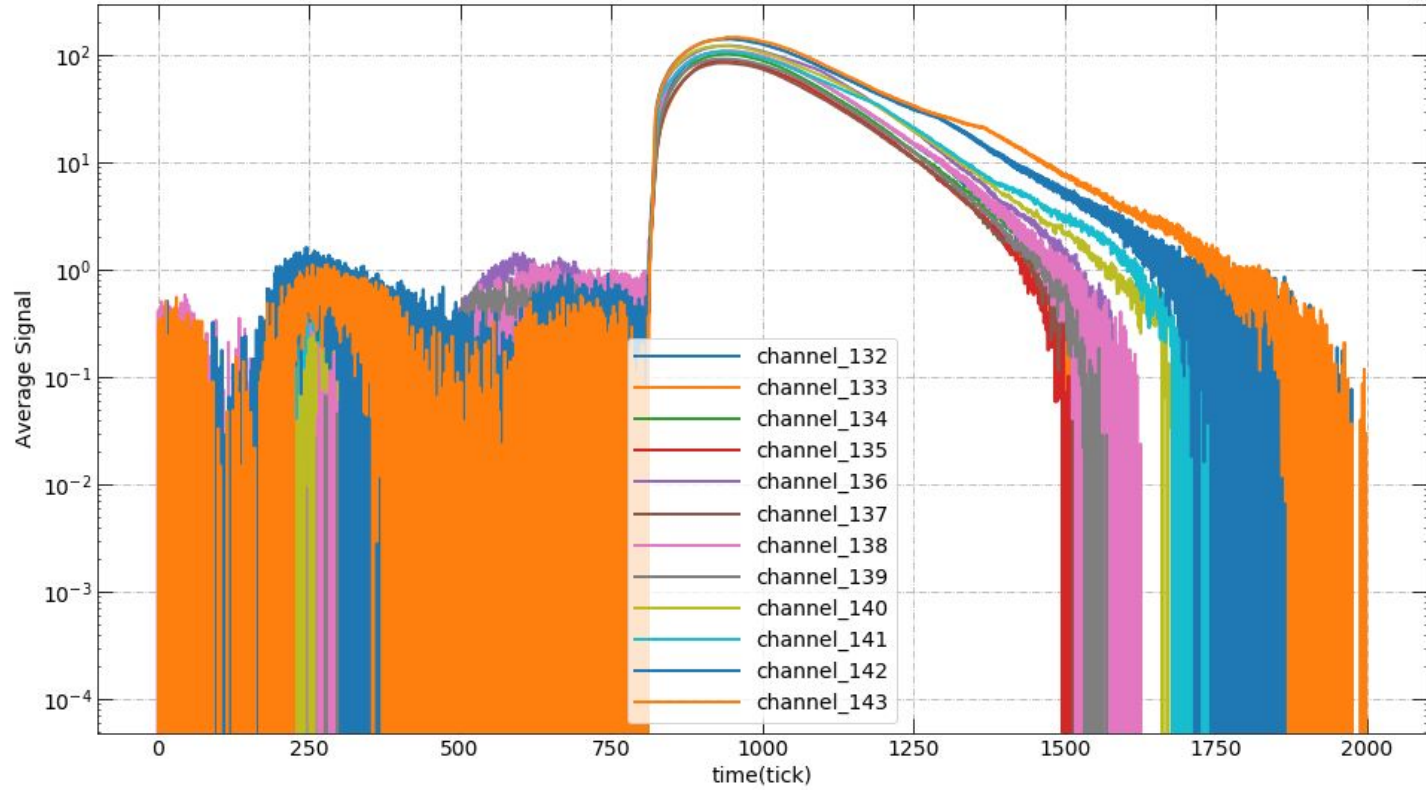
run011118

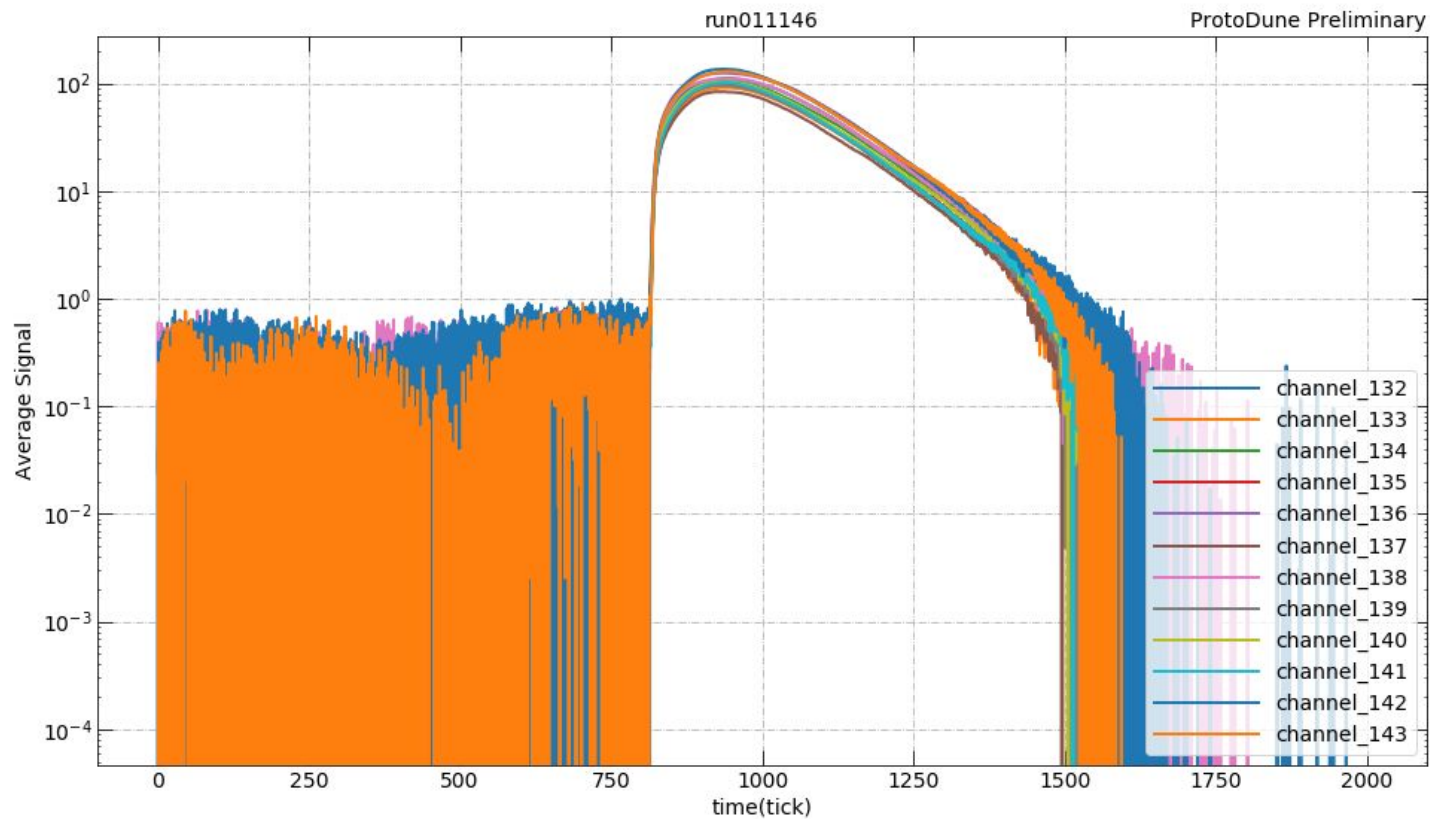
ProtoDune Preliminary

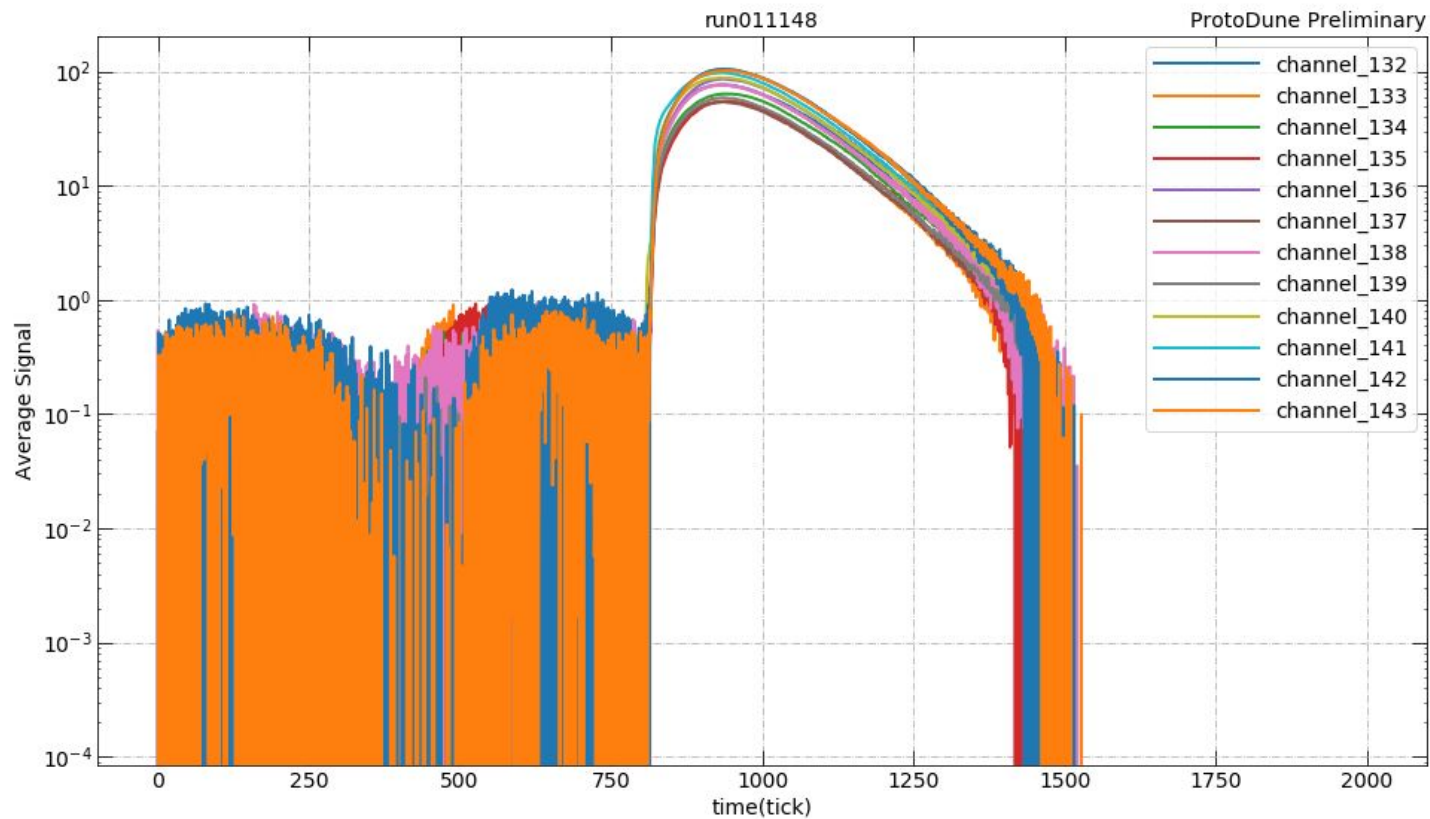


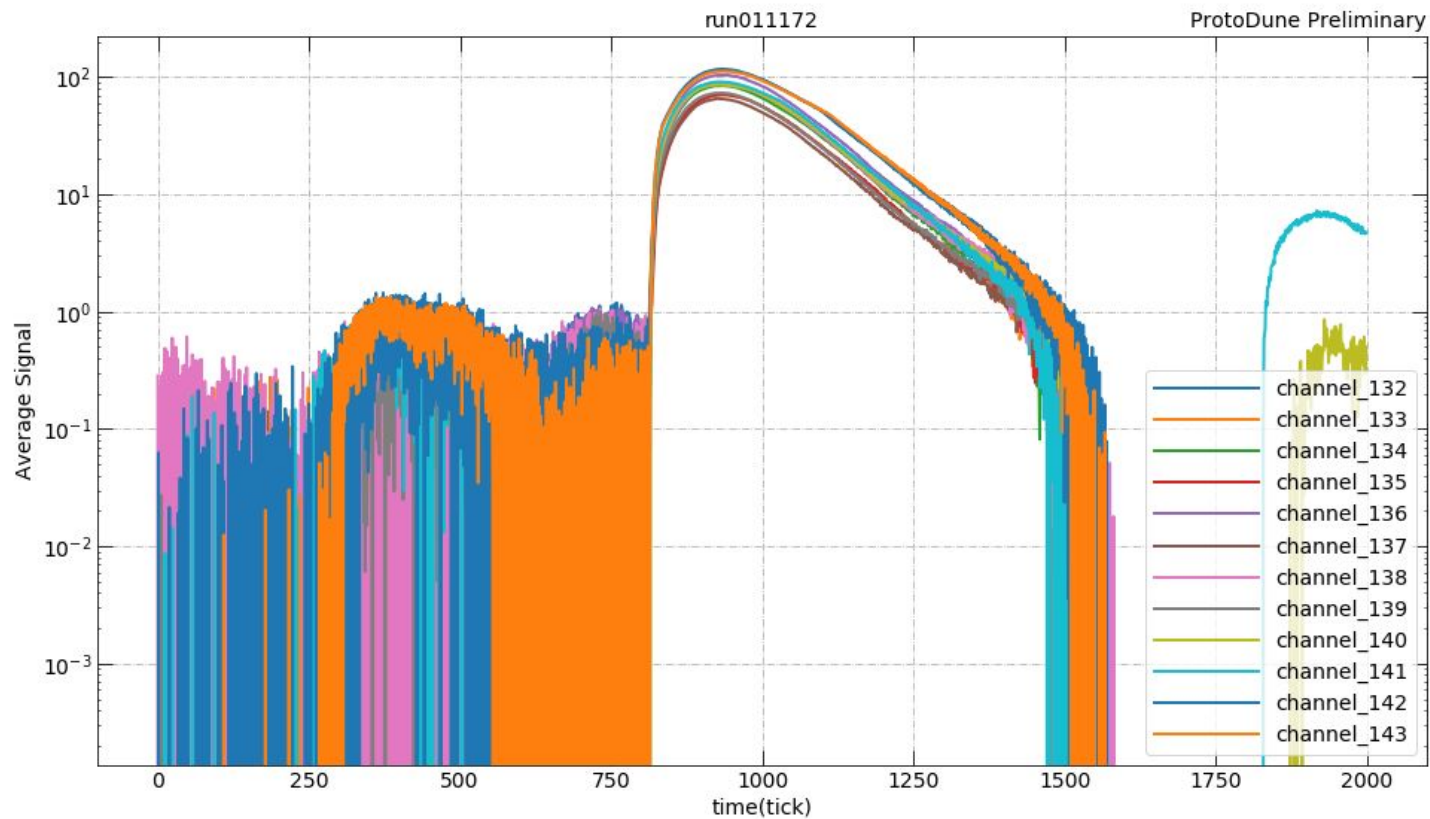
run011145

ProtoDune Preliminary



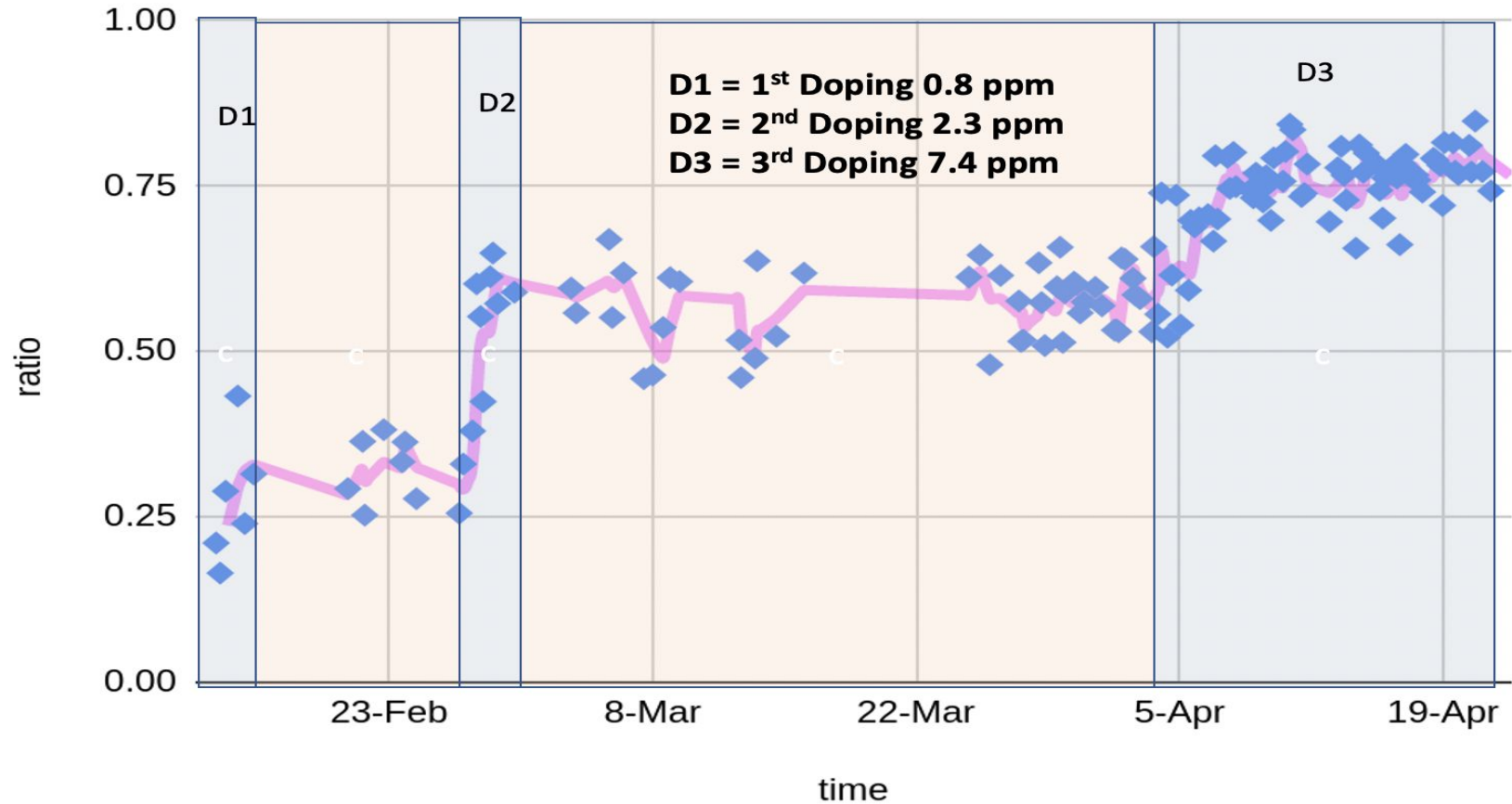




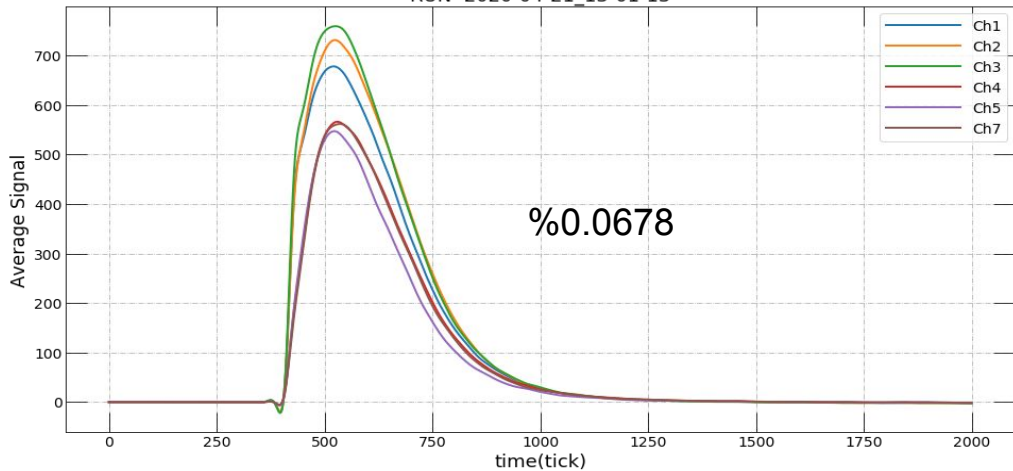


BACKUP

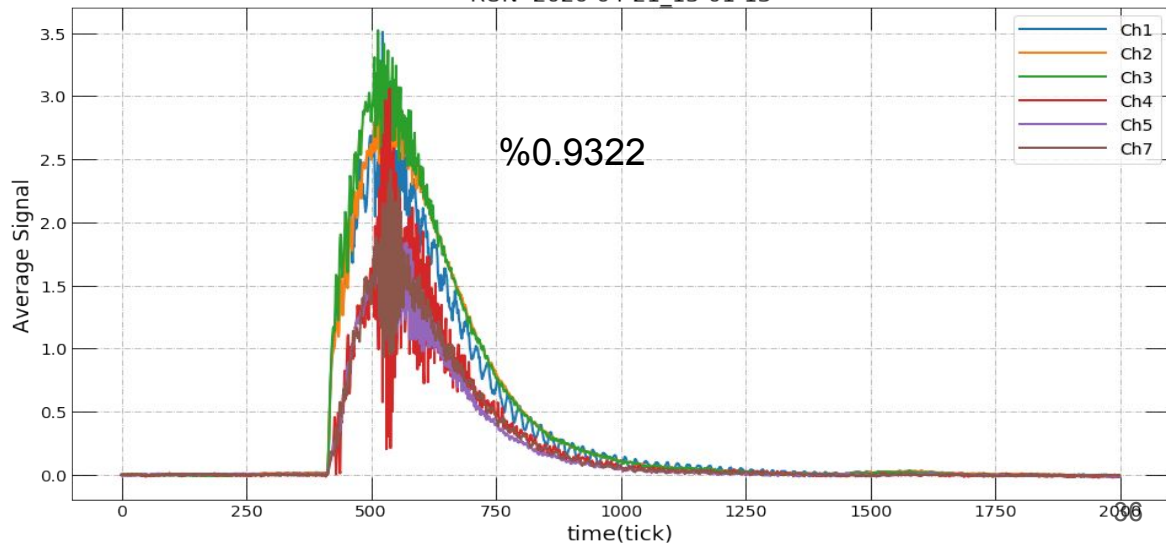
ratio vs. time



RUN 2020-04-21_13-01-13



RUN 2020-04-21_13-01-13



Run Info

Run logs,

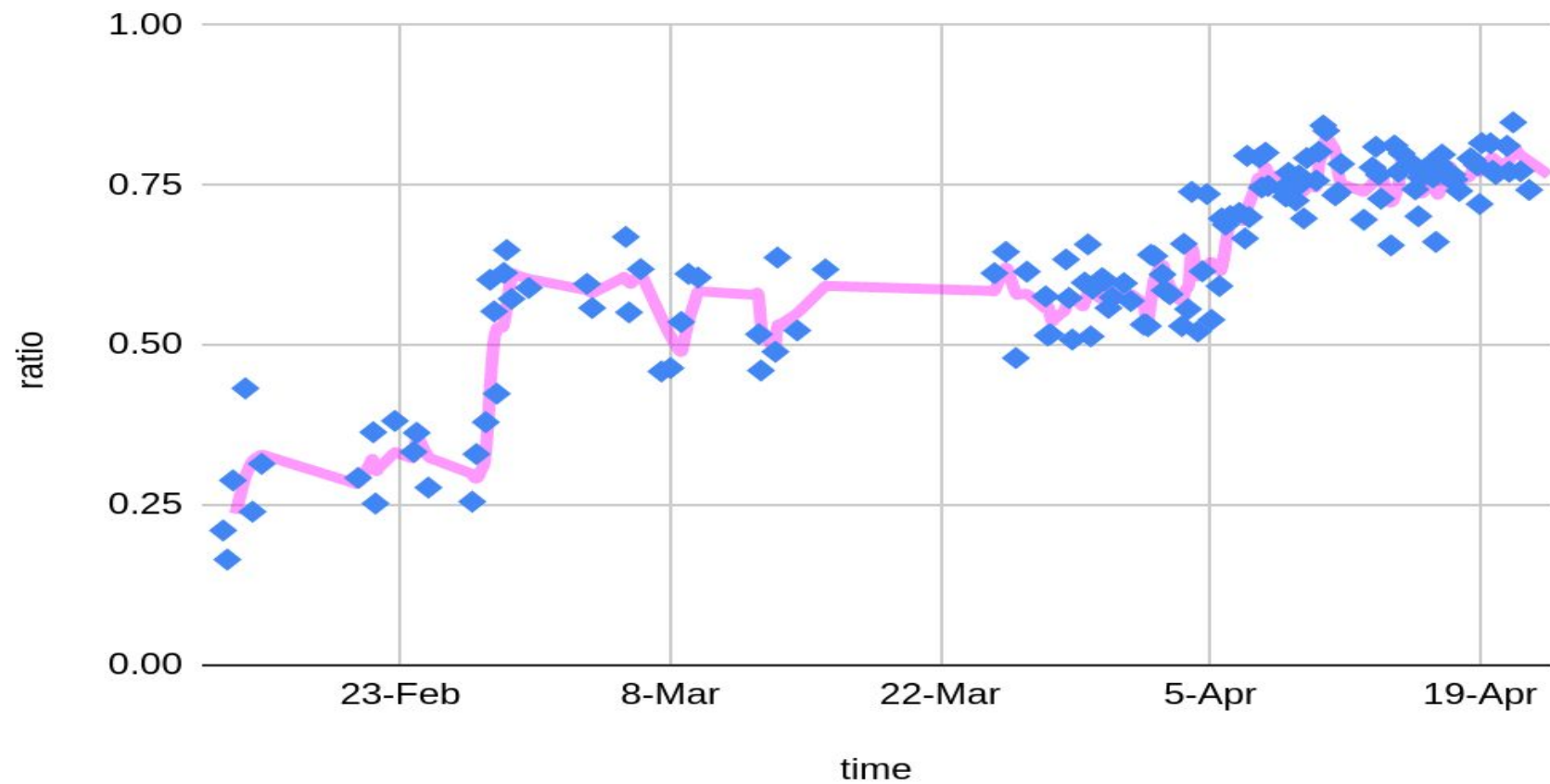
<https://docs.google.com/spreadsheets/d/1j22lp80CuadYQdBHWP0lhc5mThz8V35QL-e9XvqxN0/edit#gid=0>

Number of run is over 140 (exactly 10000 waveform)

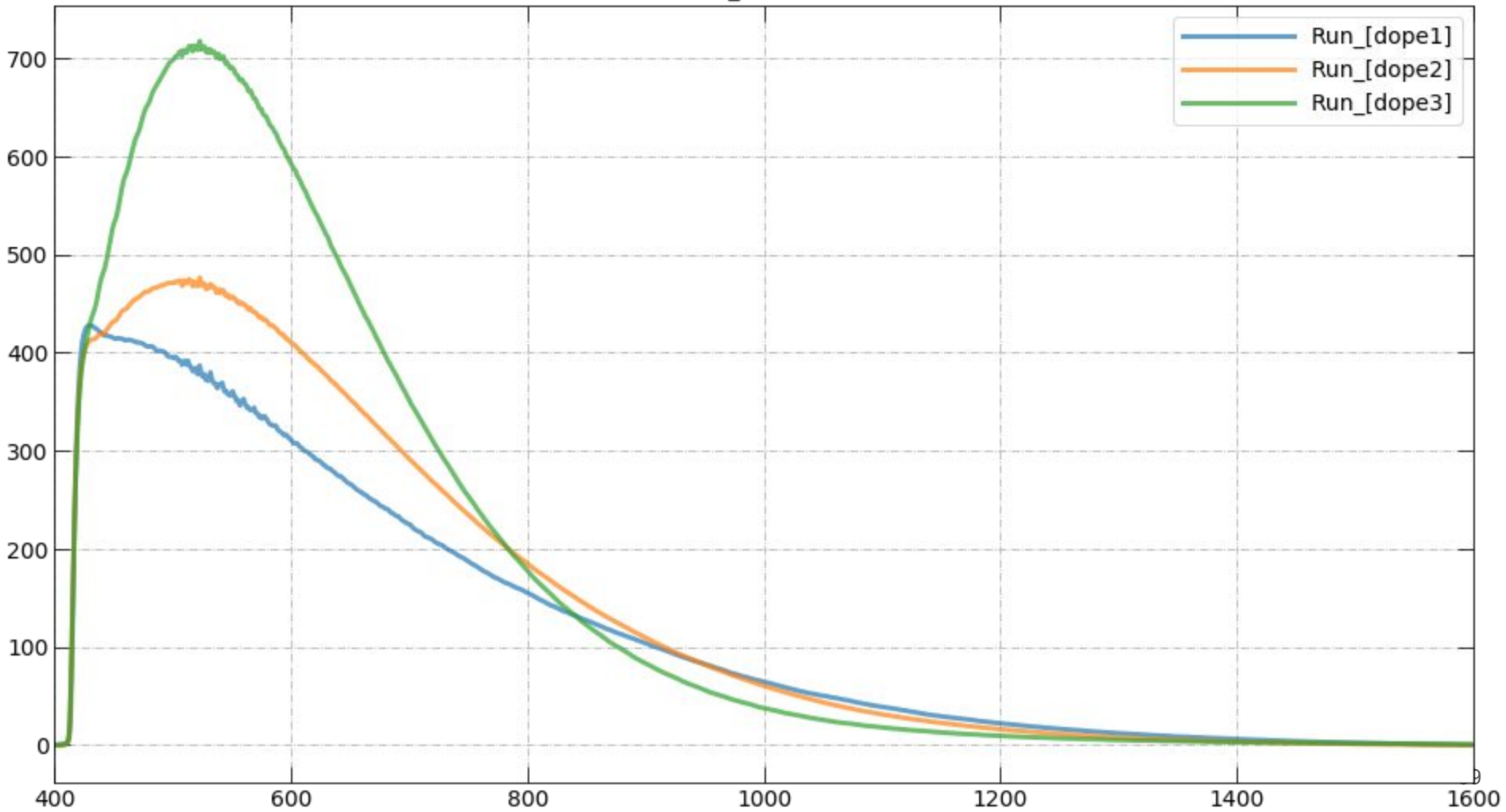
https://cernbox.cern.ch/index.php/apps/files/?dir=/_myprojects/flic2019/Data/ProtoDUNE_SP/XeDoping_Feb2020&

| | | | | | | | | |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 2020-02-13_18-40-27 | 2020-02-21_14-17-51 | 2020-03-01_13-30-58 | 2020-03-14_14-03-06 | 2020-03-30_09-28-09 | 2020-04-04_08-40-01 | 2020-04-08_22-12-07 | 2020-04-13_20-36-12 | 2020-04-18_11-58-35 |
| 2020-02-13_18-45-23 | 2020-02-21_17-03-34 | 2020-03-02_14-33-42 | 2020-03-16_01-12-03 | 2020-03-30_13-03-04 | 2020-04-04_14-25-02 | 2020-04-09_01-32-23 | 2020-04-14_09-02-49 | 2020-04-18_14-53-28 |
| 2020-02-13_18-48-59 | 2020-02-22_17-12-50 | 2020-03-03_16-19-55 | 2020-03-24_16-41-13 | 2020-03-30_17-21-51 | 2020-04-04_19-56-49 | 2020-04-09_10-35-33 | 2020-04-14_13-25-18 | 2020-04-18_20-22-52 |
| 2020-02-13_19-05-00 | 2020-02-23_16-29-08 | 2020-03-03_22-45-07 | 2020-03-24_19-28-00 | 2020-03-30_22-28-09 | 2020-04-05_01-32-08 | 2020-04-09_14-30-15 | 2020-04-14_18-27-16 | 2020-04-18_23-22-27 |
| 2020-02-13_19-27-47 | 2020-02-23_20-23-44 | 2020-03-05_16-34-38 | 2020-03-25_09-44-25 | 2020-03-31_12-41-01 | 2020-04-05_11-28-18 | 2020-04-09_17-01-07 | 2020-04-14_22-21-24 | 2020-04-19_01-55-47 |
| 2020-02-14_00-34-41 | 2020-02-24_10-52-25 | 2020-03-05_20-40-54 | 2020-03-25_14-49-38 | 2020-03-31_21-11-23 | 2020-04-05_14-17-13 | 2020-04-09_20-32-27 | 2020-04-15_12-05-43 | 2020-04-19_12-50-50 |
| 2020-02-14_07-35-13 | 2020-02-26_17-25-27 | 2020-03-06_11-10-01 | 2020-03-25_22-08-20 | 2020-04-01_13-04-47 | 2020-04-05_19-12-38 | 2020-04-10_00-11-59 | 2020-04-15_15-20-47 | 2020-04-19_15-35-20 |
| 2020-02-14_10-14-28 | 2020-02-26_22-37-37 | 2020-03-07_12-56-31 | 2020-03-26_11-50-33 | 2020-04-01_15-50-17 | 2020-04-06_00-56-50 | 2020-04-10_12-05-10 | 2020-04-15_19-05-56 | 2020-04-19_19-31-25 |
| 2020-02-14_10-29-47 | 2020-02-27_10-16-47 | 2020-03-08_00-12-02 | 2020-03-27_11-12-54 | 2020-04-01_18-23-19 | 2020-04-06_12-20-51 | 2020-04-10_15-16-57 | 2020-04-15_21-45-00 | 2020-04-20_00-02-06 |
| 2020-02-14_11-03-59 | 2020-02-27_15-48-53 | 2020-03-08_13-34-03 | 2020-03-27_13-43-43 | 2020-04-01_22-04-27 | 2020-04-06_14-55-44 | 2020-04-10_20-40-19 | 2020-04-16_09-38-35 | 2020-04-20_09-29-10 |
| 2020-02-14_11-35-10 | 2020-02-27_20-44-12 | 2020-03-08_22-30-36 | 2020-03-27_16-58-11 | 2020-04-02_02-21-19 | 2020-04-06_19-23-56 | 2020-04-11_00-26-19 | 2020-04-16_13-20-33 | 2020-04-20_12-11-03 |
| 2020-02-14_12-11-55 | 2020-02-27_23-53-44 | 2020-03-09_10-31-34 | 2020-03-28_12-34-46 | 2020-04-02_12-38-44 | 2020-04-06_21-54-02 | 2020-04-11_11-39-39 | 2020-04-16_16-55-11 | 2020-04-20_17-14-10 |
| 2020-02-14_12-49-16 | 2020-02-28_08-54-47 | 2020-03-12_14-16-27 | 2020-03-28_16-08-07 | 2020-04-02_15-24-23 | 2020-04-07_00-31-12 | 2020-04-11_15-10-25 | 2020-04-16_20-27-16 | 2020-04-21_02-14-01 |
| 2020-02-14_23-04-44 | 2020-02-28_12-31-10 | 2020-03-12_14-22-29 | 2020-03-28_20-21-37 | 2020-04-02_21-45-44 | 2020-04-07_12-57-51 | 2020-04-11_18-53-33 | 2020-04-17_00-40-22 | 2020-04-21_13-01-13 |
| 2020-02-15_08-01-01 | 2020-02-28_18-28-36 | 2020-03-12_16-51-38 | 2020-03-29_11-53-05 | 2020-04-03_12-51-31 | 2020-04-07_16-12-17 | 2020-04-12_23-15-50 | 2020-04-17_09-47-20 | old |
| 2020-02-15_12-07-21 | 2020-02-29_15-49-01 | 2020-03-13_10-35-37 | 2020-03-29_15-48-35 | 2020-04-03_15-14-55 | 2020-04-07_20-53-23 | 2020-04-13_10-01-06 | 2020-04-17_13-13-56 | |
| 2020-02-15_19-27-13 | 2020-03-01_02-05-45 | 2020-03-13_10-48-54 | 2020-03-29_19-14-10 | 2020-04-03_20-23-12 | 2020-04-08_00-10-37 | 2020-04-13_14-15-05 | 2020-04-17_15-51-13 | |
| 2020-02-20_19-23-41 | 2020-03-01_05-03-40 | 2020-03-13_13-20-34 | 2020-03-29_21-44-54 | 2020-04-04_01-04-19 | 2020-04-08_17-59-40 | 2020-04-13_17-42-38 | 2020-04-17_21-54-24 | |

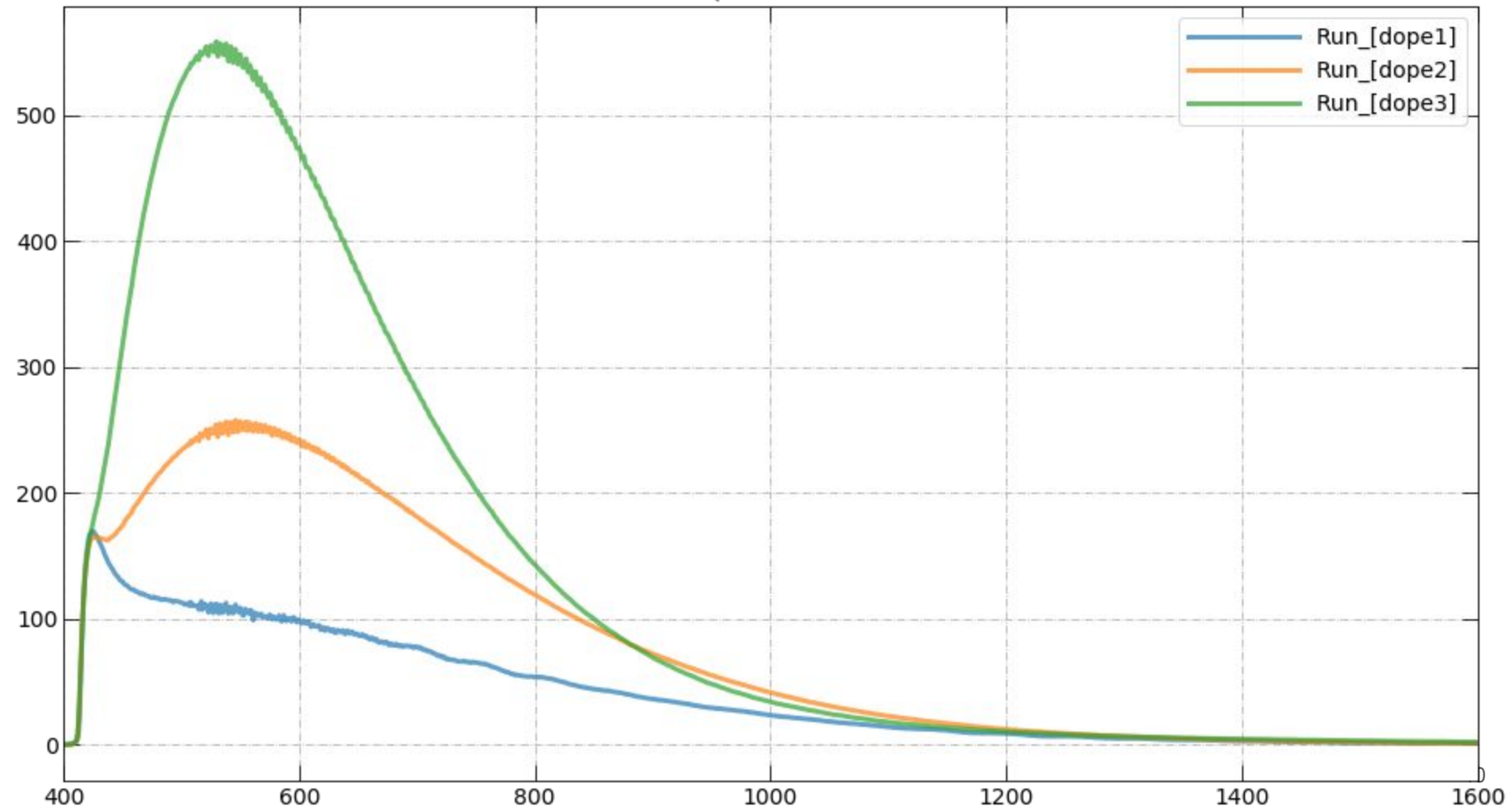
ratio vs. time



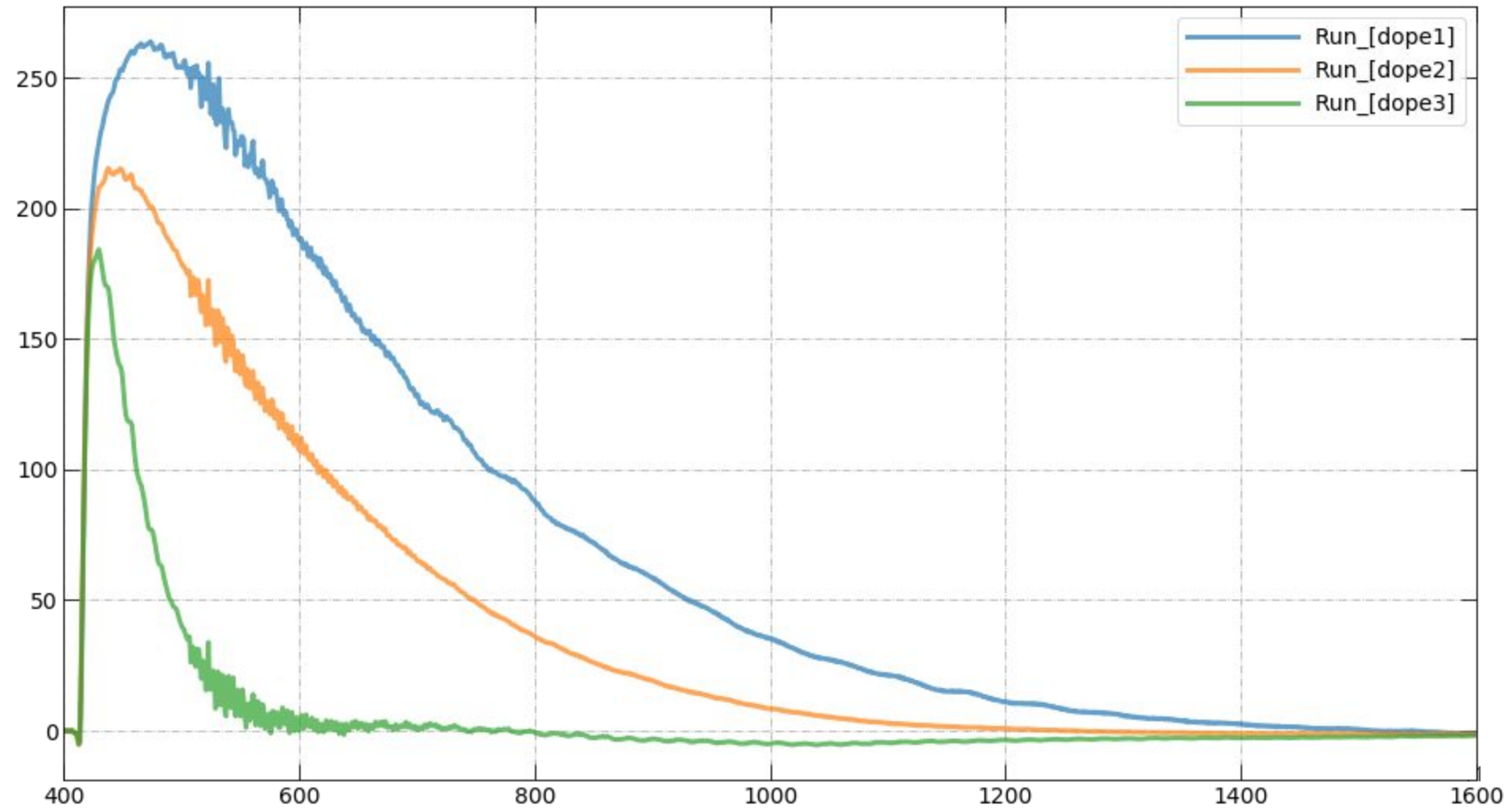
no_window

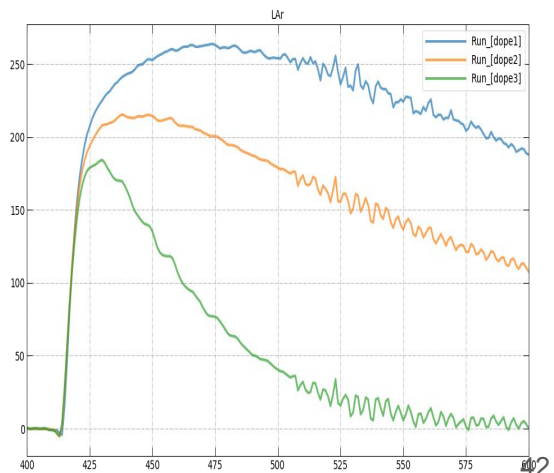
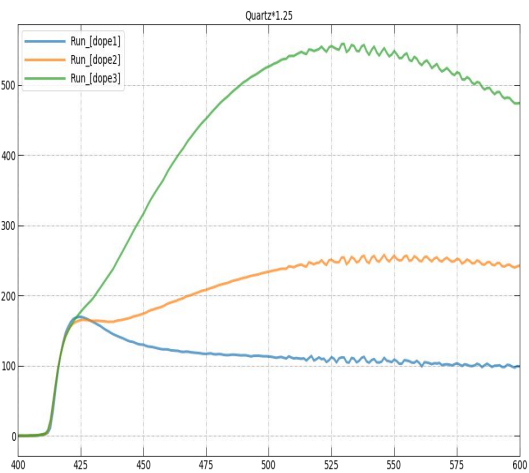
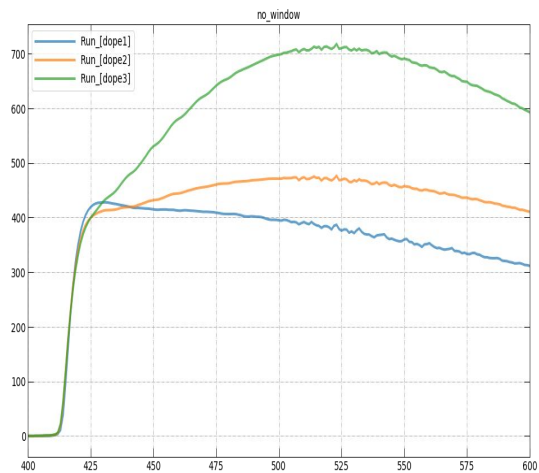
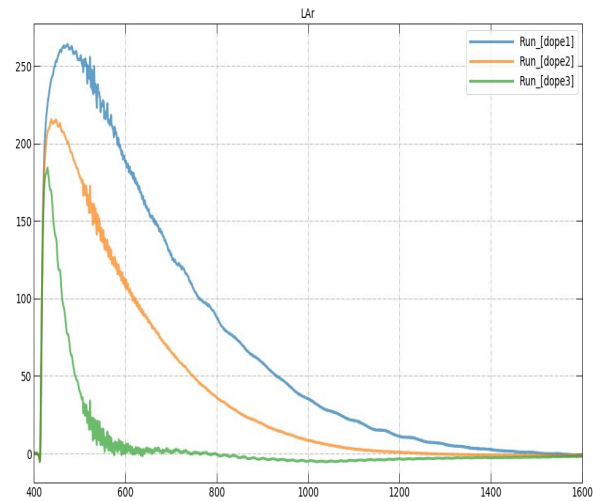
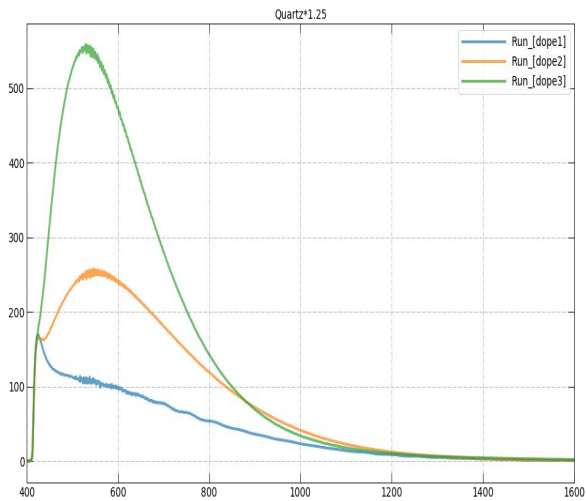
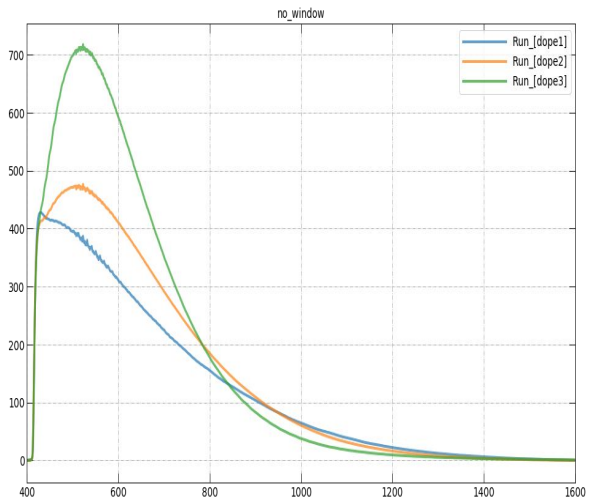


Quartz*1.25

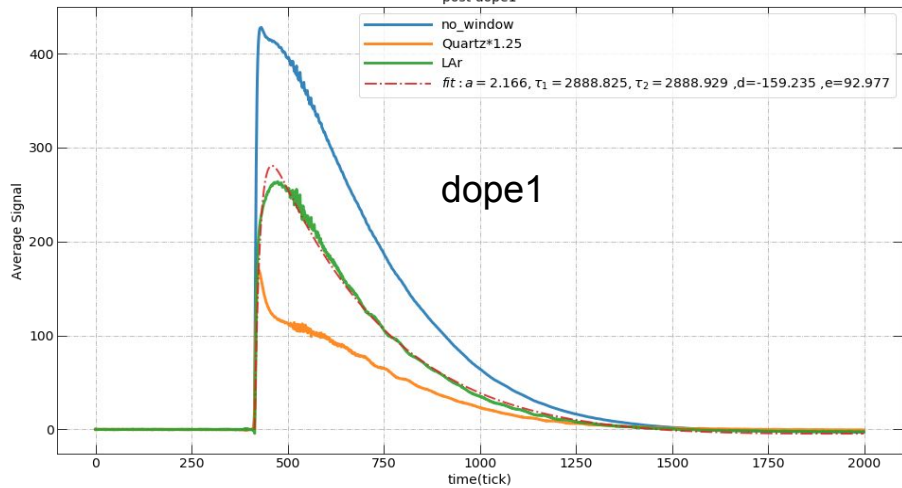


LAr



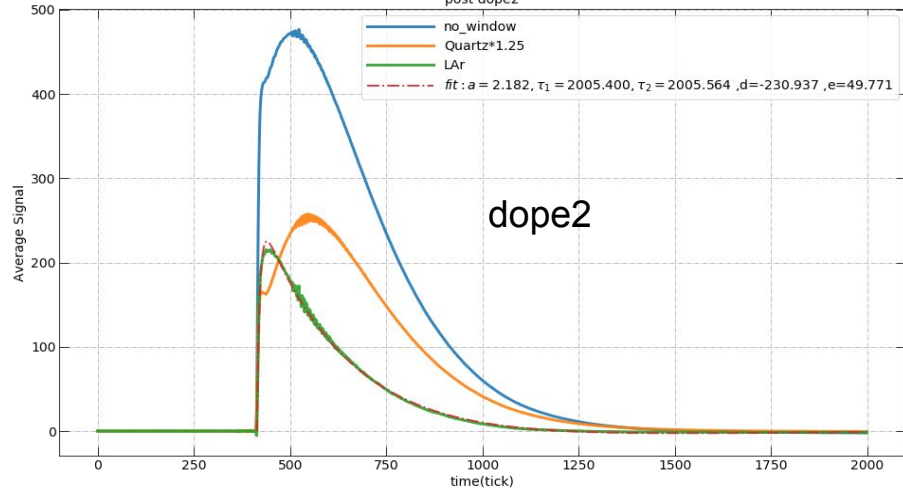


post dope1



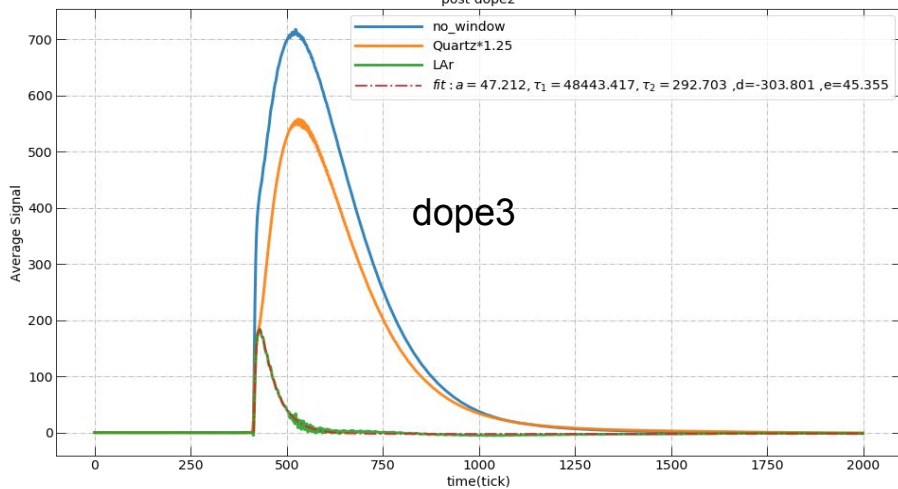
dope1

post dope2

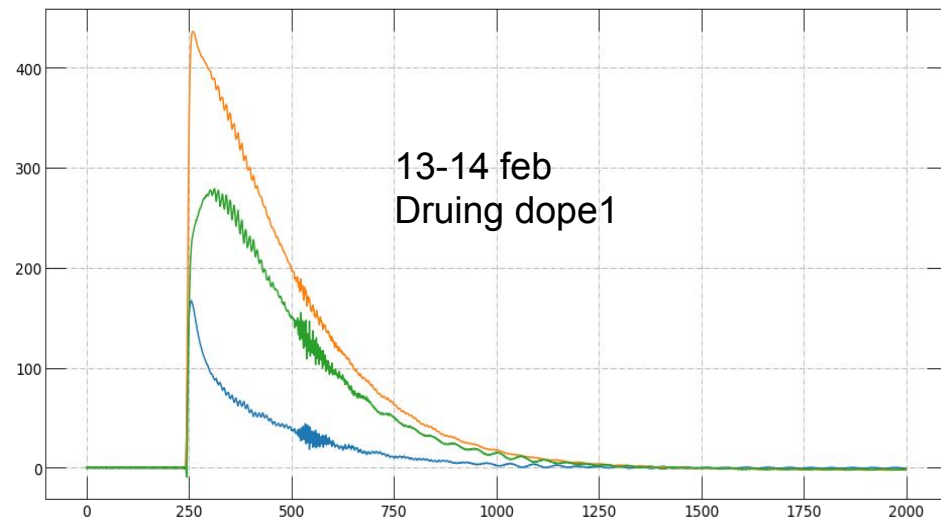


dope2

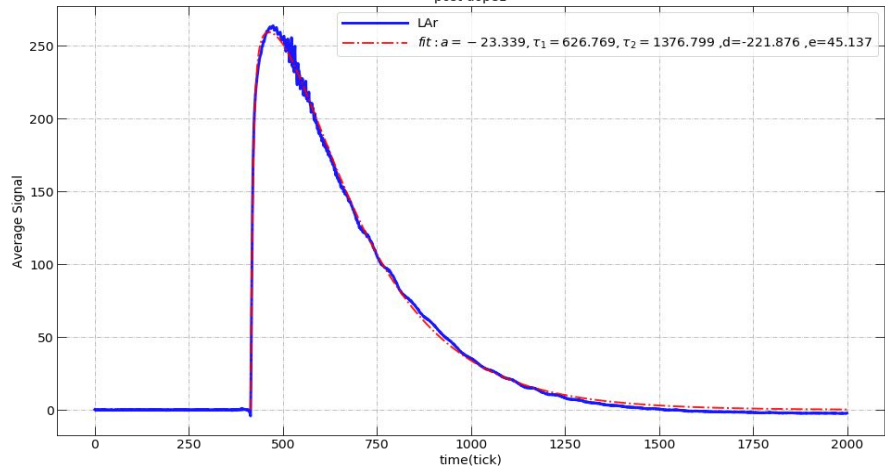
post dope2



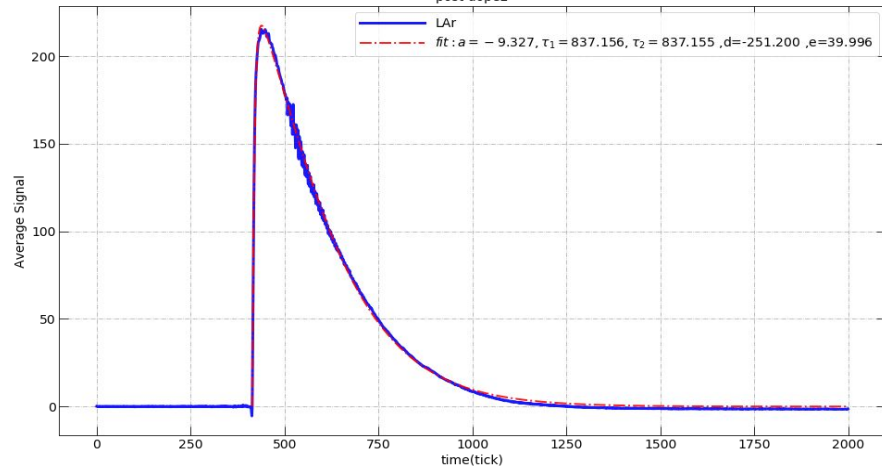
dope3

13-14 feb
Druing dope1

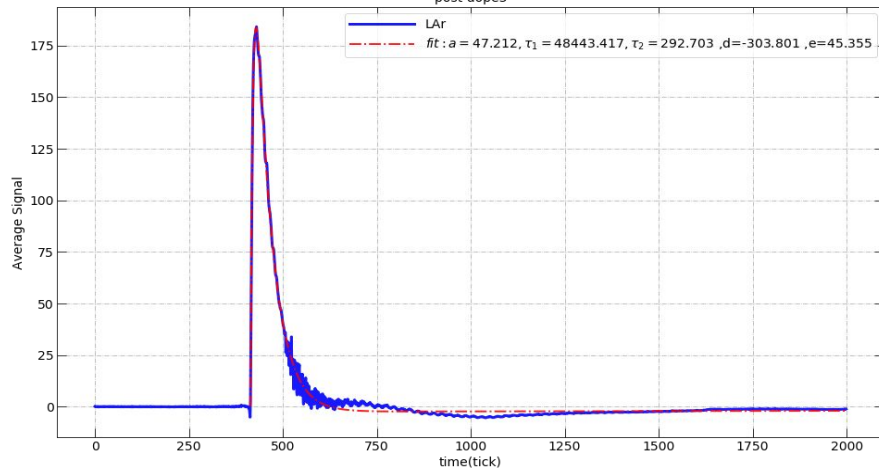
post dope1



post dope2



post dope3



Summary

- Gain, Deconvolve
- Any suggestions are welcome