Group 2’s thoughts on EDIT 2023

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We thank all the people responsible for this years EDIT school! We really appreciate the efforts all of you put into organizing this event.

Silicon detectors

We appreciate the introductory presentation on the experiment+simulation we were going to perform that day. The TCAD simulation was informative and useful, however pacing was accelerated towards the end and it became hard to follow.

Clean room experience was very interesting and we guess we all know what we're wearing for this Halloween!

Liquid Argon

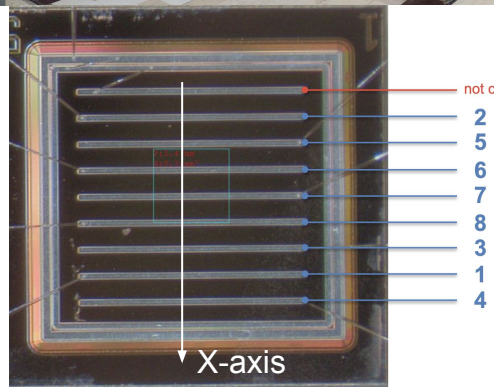
Good survey of practical uses of cryogenic liquids. The experiments could be restructured for more active input from us (for eg: we could conduct the chip tests in vs out of the cryo environment, or compare effect of cryogenic temperatures on sensor/cable behavior. More active than passive, although we understand this may be difficult for safety reasons).

Radio Astronomy

Getting to see the BMX telescope was fun! The lab activity could have benefited from dedicated computers already setup with the python code (like the Electronics lab). The time saved could have allowed for more in-depth activities (Justine's lab activity idea sounded very interesting!)

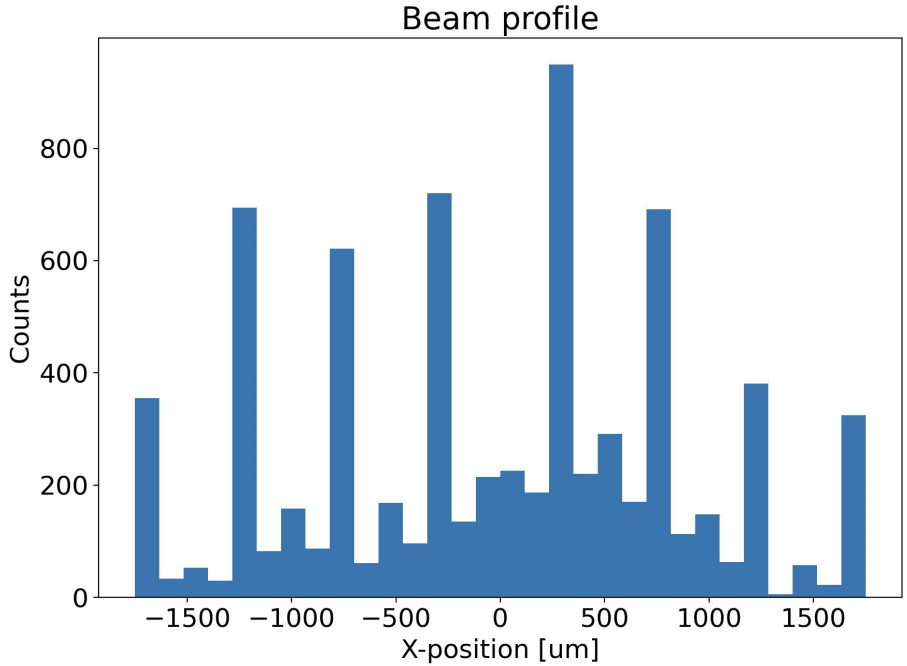
Beam test

Great hands on experience (even if not tinkering with the actual setup). The prerequisite software+library requirements (python,matplotlib) should have been well defined earlier to better utilize the beam time.



Oscilloscope channels

$$X = \frac{\Sigma A_k x_k}{\Sigma A_k}$$



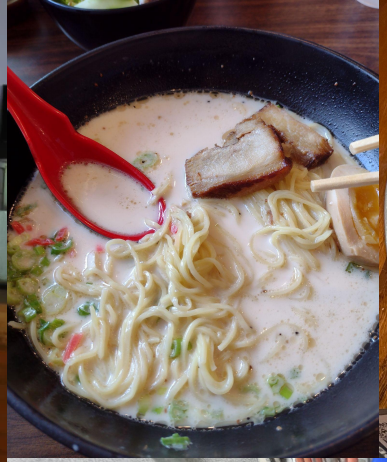
- **Liquid scintillators**
  - Great hands-on lab
  - Interplay between chemistry and particle physics
  - Activity idea: Come up with an optimal mixture based on requirements, test emission/absorption spectrum, iterate
- **Electronics**
  - Interesting content
  - Lots of new insight into ASICs, digital signal processing and FPGAs
  - Learning was prioritized
  - Majority of our group have no electronics background -> Level was a little high, lots to digest. Digital comparators section was particularly fast paced.
  - Simulating simpler circuits may have offered a better start

- **DAQ**
  - Learned useful techniques in LabVIEW for FPGA use.
  - Activity idea: Setting up a simple measurement experiment with a DAQ card - measuring analog voltage, etc, and find efficient way to display it
- **Quantum networks**
  - Lots of cool tools! (optical table for single photon pair production, 3D MOT, etc)
  - Small scale table top setup, gas discharge lamp demos were very demonstrative of the kinds of things we need to consider for single photon pair maearuements
  - Paul needs to record an audiobook!

Miscellaneous Items

- **BNL Site Access**
  - More time for guest site access and items such as virtual trainings
- **Lectures**
  - Generally good! Technical level for some topics such as electronics could be reduced.
- **Facility tours**
  - Amazing to see the various labs. However, we would have liked to visit the STAR and sPHENIX detectors.
- **Overall feedback**
  - Great experience with many different areas being covered
  - Machine specific issues were a drawback
  - Microphone for lectures.
  - Thank you for quick responses on feedback!
  - Port Jefferson was a beautiful venue.


Authentically
North Fork

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