Vadim Murakhovskiy
Week 1 June/03-07/2024

Day 1: June/04/2024
I had orientation, got biometrics scanned and toured the cyclotron facility situated with a guest house with no issues. Met the students and of course enjoyed my time at the welcoming party.

Day 2: June/05/2024
I was introduced to part of the team while the others are said to be at J-PARC. They plan to be back next week to start working on RICH. I was given a quick rundown of DAQ/data analysis and created high pass and lowpass filters. This had the unintended effect of touring through the stockrooms to find signal splitters.

Day 3: June/06/2024
Went over more of the digitization of analog signals by using the signals produced by the arbitrary function generator. I also started to learn how to use root inorder to record and draw graphs of the output and input of amplitude and frequency. After understanding the basics, we plugged in a cosmic ray detector and I drew parallels to the module being somewhat similar to the one I worked with at Jlab with a tungsten main body and PMT at the end. We started to set up this detector to start work on a cosmic ray test by using a divider, delayer, discriminator, trigger and gate generator. We stopped here due to time constraints. I also am presenting on Friday about my progress so far.

Day 4: June/07/2024
I attended a Friday meeting to present a quick presentation for the meeting. I will attach the powerpoint, so it can complement the paper with pictures and a brief summary. Finished work with a sample cosmic rays from 2 separate detectors by creating a full DAQ system. Used the ADC to transfer data from the DMD to Saho, the server used by RCNP. Copied this data and used root and XQuartz, a graphing software to make histograms out of the given data. I also began to write down some commands and algorithms to remember to write in root for the project. I have a planned meeting with Suzui-san starting next monday where I will hopefully begin working on the project with the rest of the team.