

# The Catholic University of America QuarkNet Center

## 2023 Report

### Kenneth Cecire

The Catholic University of America (CUA) QuarkNet Center had a busy and exciting workshop week. They started asynchronously on Monday July 17 with registration and introductory materials on particle physics and then moved smartly into a Zoom session to introduce/review QuarkNet. On Tuesday, they were on campus at CUA and had a combination of in-person activities facilitated by mentors Angela McRae and Katryna Andrusik and online presentations by Mark on cosmic rays and by Ken introducing accelerators and detectors. Teacher Gerson Perreira gave a presentation about his experience at Data Camp as well. Wednesday took the accelerator and detector theme to new heights as the crew drove down to Newport News, Virginia to spend the day at **Jefferson Lab** (<https://www.jlab.org/>), with its 12 GeV polarized electron accelerator and four target halls. There they got to see assembly and testing facilities, detectors, counting houses, and the control room. University Provost Aaron Dominguez, also a QuarkNet mentor and an active CMS physicist, was there, too!

Thursday was back at CUA and in-person lab visits and work with Ken on cosmic ray measurements with the Cosmic Watch, Z mass activities, and an introduction to World Wide Data Day. Provost Dominguez gave a terrific particle physics presentation. The week wrapped up on Friday with a tour of the High Energy Physics Lab and in-depth work on implementation and lesson planning. The group presented and discussed their work together with QuarkNet evaluator Kathy Race joining in on Zoom.

It was quite a week!



CUA mentors and teachers at Jefferson Lab..