

The Catholic University of America QuarkNet Center
Annual Report
2018

Mentors: Dr. Aaron Dominguez, Dr. Angela McRae

Eight teachers participated in QuarkNet training this year at The Catholic University of America. The teachers came from a variety of backgrounds; public, private, and Catholic schools at grade levels ranging from 7th grade through secondary school, and even an adult continuing education class. The wide range of experience in the group led to very productive conversations about teaching and learning, as the participants shared their perspectives throughout the week.

The week began with an introduction to particle physics, followed by a visit to Jefferson Lab in Newport News, VA, where the QuarkNet participants toured the lab and talked with several researchers about the history of Jefferson Lab, the ongoing research they are conducting, and they were able to see much of the equipment and technology up close. Back at the CUA campus, participants were joined by an additional teacher from the JHU QuarkNet Center for the remainder of the week, which consisted of a Cosmic Ray e-Lab, run by Kenneth Cecire. Together, they built a cosmic ray detector, and at the end of the week, collected data in the Basilica of the Shrine of the Immaculate Conception, located on the CUA campus. Participants also learned about and discussed implementation of particle physics instruction in their classrooms for the upcoming school year, and about how best to motivate students to create an engaging classroom environment.

The professional development will continue through the academic year, and will cover both particle physics research and pedagogy.



The CUA QuarkNet Team visiting Jefferson Lab, Newport News, VA



Using the cosmic ray detector in the National Basilica of the Shrine of the Immaculate Conception in Washington, DC