

QuarkNet Center @ Colorado State University

2023 Annual Report

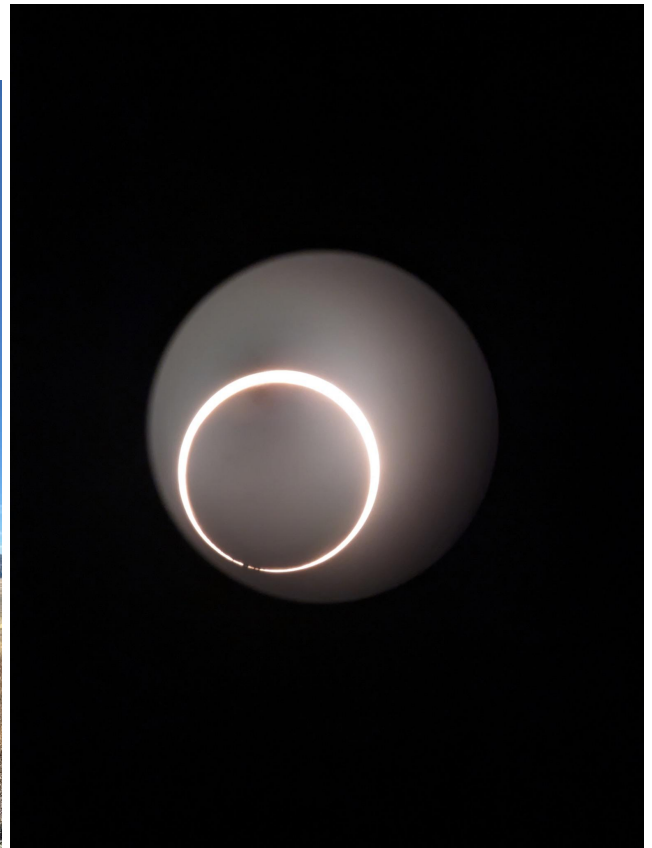
Faculty mentors: Dr. Bob Wilson, Physics Professor, Department of Physics, Colorado State University

Lead teachers: Cherie Bornhorst, Little Shop of Physics Teacher in Residence; Adam Pearlstein, Little Shop of Physics Assistant Director; and Zach Armstrong, Science Teacher at Greeley West High School

Masterclass@CSU

On Saturday March 4, 2023 CSU Quarknet Center held our Masterclass event, in the Little Shop of Physics space at Colorado State University. Three of the high school teachers involved in our Quarknet center brought a total of 60 students for a day of learning! Quarknet Staff Member, Shane Wood, was also in attendance for the event! The day included a talk by Professor Josh Berger from Colorado State University Physics Department, lots of time for students to interact with QN Data Portfolio activities, and analyze data from the Minerva experiment. Two Little Shop of Physics interns donated their time and were around during the day to help, and to answer student questions. The day came to an end with a videoconference with 2 other Masterclass sites. Overall, it was a huge success! In an end-of-year survey, many students rated their experience with the Masterclass as the highlight of their school year.





Quarknet@CSU Workshop:

The Colorado State Quarknet Center hit the road for a 4-day trip to Los Alamos, NM to align with the annular solar eclipse passing overhead on October 14th, 2023! We set up a cosmic ray flux study which ran the duration of the eclipse, 2 telescopes with different filters, and had plenty of eclipse glasses on hand to give to the general public in attendance. We had many conversations with people from all over the world about the eclipse, cosmic rays, and science in general. On our trip we also toured Los Alamos National Lab; where we got to visit both the LANSCE lab and the MagLab. While in New Mexico we also made time for our traditional Share-a-thon session, where we each bring our newest/best/brightest ideas to share. Lots of great ideas for labs and activities, book reading recommendations, worthwhile professional development opportunities, and tech resources were shared!

Participants in the summer workshop included:

- Shane Wood, Quarknet
- Cherie Bornhorst, Colorado State University
- Adam Pearlstein, Little Shop of Physics
- Zach Armstrong, Greeley West High School
- Taylor Plantt, McAuliffe STEM Academy
- Matt Leach, Douglas County High School
- Mark McConnell, Mountain Vista High School

The majority of teachers at our center also serve as board members of the CO/WY AAPT section, so we are looking for ways to share what we learned at LANL, and recruit more QN teachers, at our upcoming section meeting on November 4th, 2023.