

Summer 2019 Quarknet Workshop at Syracuse University

The Syracuse group hosted a Quarknet workshop from Aug 15 – 16, 2019 in the physics department at Syracuse University. Prof. Steven Blusk coordinated the event, which included 9 teachers from the following high schools: **Anne Huntress** (South Lewis), **Michael Madden** (Canandaigua Academy), **Stephanie MetzMiller** (Webster-Schroeder), **Brian Bealer** (Auburn), **Elise Jutzeler** (Jamesville-Dewitt), **Karen Balbierer** (Waterloo), **Linda Wicks** (Cincinnatus), **Marge Hartquist** (Dryden), and **Andrew Roberts** (Weedsport). Among the nine teachers, six are first-time attendees to the Quarknet workshop.

This year, we aimed to provide a broad set of experiences. On the morning of the first day, we visited a local company, Syracuse Research Corporation (SRC) that employs many people in STEM fields. Teachers saw the ways that students with a physics background could apply their talents in industry (see Fig. 1). In the afternoon, we had a series of presentations on astrophysics and soft matter research at Syracuse, followed by laboratory tours (see Fig. 2).



Fig 1: The group after the visit to SRC.

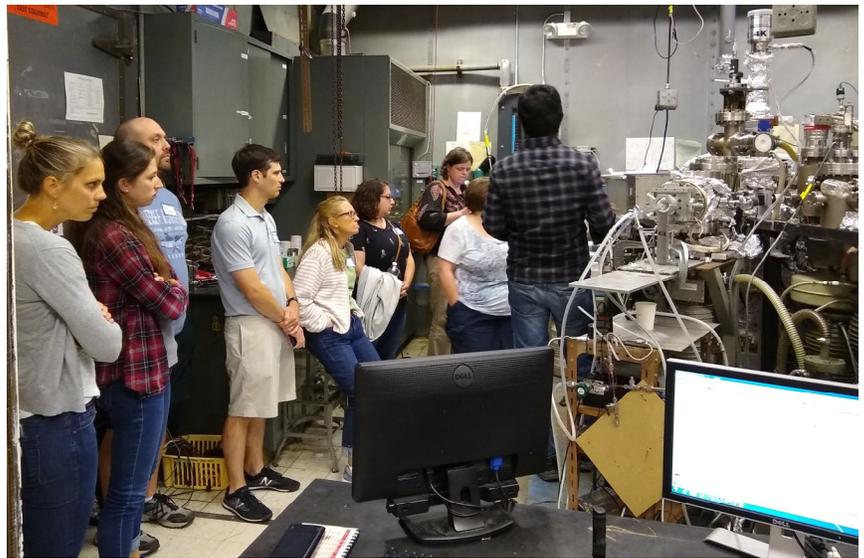


Fig 2: Teachers on the tour of the Surface Astrophysics lab at SU.

On the morning of the second day, we had a mini-workshop by Charlene Rydgren from the North Country 3D Café, who shared her knowledge on the new Science Learning Standards, and had the teachers carry out a *3D Lab* (see Fig. 3). In the afternoon, Shane Wood led a workshop on measuring the muon lifetime using data from Minerva (see Fig. 4), and this was followed shortly after by a workshop on the **StepUp** program. Teachers shared with Prof. Blusk that they enjoyed the workshop very much, learnt a lot, and hope/expect to return next year.



Fig 3: Teachers participating in a “3D Lab”, facilitated by Charlene Rydgren.



Fig 4: Shane Wood demonstrating the concept of lifetime at SU.