



**QuarkNet**

## Stories from the classroom

QuarkNet has made a huge difference in my classroom. High energy physics was not really taught during my undergrad studies, and so I was left trying to teach myself from my textbooks while I was teaching. I could memorize the standard model, but I didn't really understand it and it showed. Once I got involved in QuarkNet, it changed the way I learned it and how I teach it. Through research with my mentor, workshops with my students, activities through the QuarkNet program, and visiting high energy research facilities, it has come alive. My students don't memorize the standard model, they use a Cosmic Ray Muon Detector to measure properties of particles and they visit particle physics research labs like Fermilab. They see actual results of research and make measurements through Masterclass. I can continue learning through Boot Camp (which I have done three times and would do again), and I have spent 3 weeks at CERN for their HST program.

QuarkNet not only gives me opportunities and resources for learning particle physics, there are other valuable lessons that I get to pass along to students. Students learn histograms, atomic structure, how research is done, energy, momentum, and magnetism. In 31 years of teaching, I have not found another program that gives such learning opportunities and resources for teachers, and it is especially helpful in that not all of us had any training in high energy physics before beginning teaching.

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