

The University of Mississippi QuarkNet group took its annual workshop on the road in July 2025. Several Ole Miss faculty, students, and staff members joined two of our QuarkNet teachers for a tour of Oak Ridge National Lab near Knoxville, TN. Dr. Oskar Hartbrich, staff scientist at the lab, organized and led the tour, which included the Spallation Neutron Source and Center for Nanophase Materials Science. We were also treated to coffee and bagels in the morning, along with a welcome from Dr. Marcel Demarteau, director of the physics division at ORNL, who told us a bit about the lab's history. In the afternoon, Dr. Jake Bennett reviewed some of the physics behind how neutrons are used for fundamental physics and some of the things we can learn from neutron science. We ended the day by touring the graphite reactor, the first reactor to produce gram sized plutonium.



On the way back to Mississippi, most of the group stopped for a tour of the US Space and Rocket Center in Huntsville, AL. After hearing from researchers who study physics at the smallest and most fundamental levels, it was amazing to see the size and scope of the rockets that helped to propel humankind into outer space!