

## Kansas State University QuarkNet Center, 2023-2024 Annual Report

The K-State group held a Master Class (and Master Class Orientation), five CRMD Zoom sessions, a one-day Cosmic Ray Zoom workshop, and a two-day in-person summer workshop, in the last fiscal year.

In addition, we are also coordinating a research project with QuarkNet Fellows Martin Shaffer and Jim Deane that involves our dozen CRMD teachers working with their students to correlate muon rates with atmospheric temperature and pressure changes (available from NASA) as weather fronts move through Kansas and Arkansas.

The Master Class Orientation was held on February 10, 2024 and was attended by 8 teachers.

The Master Class was held on March 1, 2024 and was attended by 7 teachers and their students. KSU Physics hosted a talk on HEP, CERN, CMS.

On average 4 CRMD teachers attend the Zoom meetings.

The one-day Cosmic Ray Zoom workshop was attended by 8 teachers.

The two-day in-person workshop was held on June 4 and 5 2024 and attended by 13 teachers and covered NOVA related activities.

On other fronts, KSU QuarkNet teachers continued to avail themselves of national QuarkNet and other HEP-related opportunities seeded by QuarkNet.

The KSU group remains strong in its twenty-first year of existence. Approximately two and half dozen teachers participate, a core group of a dozen or so regularly, and the rest at the rate of once every other meeting. We continue to specialize in serving small rural high schools throughout the state of Kansas and have now started to get some high school teachers from Kansas City, MO, as well as one from Arkansas. Plans for 2024-2025 include hour-long Zoom meetings for CRMD teachers, an early spring 2025 Master Class orientation workshop, participation in a Master Class in late spring 2025 and a summer 2025 teacher workshop or trip (given the funding situation).