Kansas State University QuarkNet Center, 2016-2017 Annual Report

The K-State group held a workshop and a Master Class in the last fiscal year and 13 teachers visited LIGO LA. The KSU QuarkNet group has 10 CRMDs on loan from Fermilab, about 2/3 of which are usually active, and some of which were used to take data during the total solar eclipse of 21 August.

The Master Class was held on April 7, 2017 and was attended by 17 teachers and over 70 students. KSU Physics hosted a short program of demos and hands-on physics activities and we also toured the KSU Nuclear Reactor. Most KSU HEP and Cosmology graduate students helped with the Master Class activities.

Master Class orientation was held on March 3, 2017 and attended by 12 teachers. In addition to the usual orientation activities related to the Master Class, we also had a two hour workshop on measurement errors and statistics; this was greatly appreciated by the teachers.

A workshop on Oscillations, Waves, Relativity, and Gravitational Waves was held at KSU on July 22, 2017. This was attended by 11 teachers. These 11 teachers, and 2 others that joined them later, visited LIGO LA for the rest of that week. This was a very useful trip for the teachers.

On other fronts, KSU QuarkNet teachers continued to avail themselves of national QuarkNet and other HEP-related opportunities seeded by QuarkNet. Kara Luce participated in the 2017 Data Camp at Fermilab, while Molly Bovos went to Greece.

The KSU group remains strong in its fourteenth year of existence. Approximately three dozen teachers participate, a core group of 15 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; we have also started working with teachers from inner-city schools in Kansas City, MO. Plans for 2017-2018 include an early spring Master Class orientation workshop and participation in a Master Class in late spring 2018, to be followed by a summer CRMD and LIGO eLab workshop.