

Alberta Section

The Alberta Section hosted three events over the course of 2018.

Adam Holloway hosted our first meeting the year on Wednesday April 25 at Ross Sheppard High School with 24 in attendance. Adam presented on using Wireless sensors (PocketLab) in his classroom and led a discussion among the attendees about alternate uses for these devices. After a pizza dinner break, attendees brought out the dusty gadgets and boxes from their storage rooms for which they didn't know the function. We tried to identify the equipment, how to use it, variations on the design of the equipment and how it could be applied in the classroom.

On October 25, we held a AGM with 18 attendees. Dion Skitsko was elected President and Terry Singleton as Section Rep. After the AGM, Dion shared an inexpensive lab that can be used to teach uniform electric fields, model magnetohydrodynamic drives, and determine Planck's constant.

The final event of the year was our annual Physics Teachers Workshop with 68 attendees. The program began with Dion Skitsko presenting hands-on classroom activities developed at LIGO Hanford's 2018 Physics Educator Workshop. Laura Pankratz (Perimeter Institute) and Tanya Hebert presented a session on Climate Change and thinking critically about key scientific data and their indicators of our changing environment. Later, Laura presented on Work and Energy using a new resource from Perimeter describing different energy representations that help bridge the gap between the physical and the mathematical. In our final presentation of the day, Darren Grant (UofA/MSU), of the IceCube collaboration, described the IceCube Neutrino Observatory and how it was designed to detect the highest energy neutrinos expected to be produced in astrophysical processes. Darren discussed what has been

learned so far in the study of these high-energy neutrinos and highlighted the recent tantalizing first evidence of an identified astrophysical source and therefore one of the long sought cosmic ray accelerators.

—*Terry Singleton* , *Section Representative*

Chesapeake Section

The Chesapeake Section spans the regions of Virginia, Maryland, and Delaware. We intentionally plan our meetings (two per year, one spring and one fall) so that we are in different locations within the tri-states. We are seeing new faces at our meetings, but we are not finding that these new participants are willing to travel to other locations outside of their "area." Our Communication Liaison (Web Master), Elena Kuchina, is doing a wonderful job keeping our section website updated with meeting locations along with presentation links in addition to sending out email alerts to all CS-AAPT members about upcoming meetings.

The section meeting attendees represent high schools, community colleges, colleges, and universities. It's quite a nice mix of individuals. We have seen an uptick in participation from the universities - specifically VCU, Virginia Tech, and James Madison. In fact, James Madison and VCU will be hosting a section meeting in 2019!

This year some of our Virginia Community College representatives informed us that their institution will not reimburse for travel outside of the state. Although all our section meetings for 2018 were in Virginia, that was not the case in 2017 where we were in WV and MD. Our Virginia Community College colleagues are hopeful that this travel restriction will be lifted so that they can freely travel to DC and MD for section meetings.

—*Deonna Faye Woolard* , *Section Representative*