

Fall 2020 TSAAPT WORKSHOPS
University of Texas at Arlington – Virtual
November 13 - 14, 2020

SATURDAY AM

W1 “The PhysTEC Texas Regional Network”, presented by William Newton, Texas A& M University - Commerce, Commerce, TX.

Improving physics teacher preparation in the state of Texas requires state-wide collaboration between university and community college faculty and high school teachers, so we can share knowledge bases, resources and strategies, strengthen and broaden our communities of pre-service teachers, new teachers and their mentors, and develop solutions to state-specific challenges. In order to facilitate this, Texas A&M University-Commerce, Texas State University, University of Houston and University of Texas Rio Grande Valley joined forces to lead the development of a Texas Regional PhysTEC Network. In this workshop we invite all those interested in getting involved in this vitally important endeavor to attend to help plan the activities of the network and learn more about Physics Teacher Education Coalition.

Limited to 24 participants – 2.0 hours – Cost \$0.00

W2 “How Do We Know Wave Particle Duality Exists” presented by Alice Flarend, Bellwood-Antis High School, Altoona, PA and Karen Jo Matsler, University of Texas - Arlington, Arlington, TX

What does it mean that light is both a wave and a particle? How do we know that? Do scientists really know what is going on with light!! Wave Particle Duality is an opportunity to introduce students to quantum. WPD is a central tenet of modern physics but is often misrepresented and is rarely connected to quantum concepts. This is part 1 of a 2-part series on WPD and how it relates to quantum in the classroom. The session is tailored for HS teachers, but anyone is welcome. If you are a member of TSAAPT, there is no fee for this session and a \$10 fee for session 2 on December 12th. If you are a TSAAPT member and only want this session there is no fee. However, registration must be completed by November 4 if you want the hands on materials mailed to you to use during the session. Session will be virtual via zoom.

Registration for this workshop can also be done online at <https://quantumforall.org/services/>

**Limited to 30 participants – 1 hour – Cost \$15.00 if not a TS AAPT member;
\$0.00 for TS AAPT members**

W3 “Physics Activities on a Small Budget”, presented by Regina Barrera, Stephanie Ingle and Tom O’Kuma, Lee College, Baytown, TX.

In this virtual workshop, we will use low-cost items to do activities in some topical areas in Physics. One will be viewing a polarized device and how it links to your vision and household electricity. A second will be viewing the spectra of gas (one of the happy ones that is) or a dumping photon device, fancy words for a LED – light-emitting diode. A third is determining a very tiny constant that is usually symbolized by “h” referred to the Planck's constant. There are other activities as well that will be covered. Included in the cost of the workshop are the supplies and shipping. You will be shipped the supplies for the workshop if you registered by November 4th. What you will need for the workshop is a computer with a microphone and video to join in the session. If you are using another device, please let us know to be sure that we have everything you will need for the workshop

Limited to 24 participants – 2.0 hours – Cost \$20.