TAOAPS Newsletter September 2025



Joint Fall 2025 Meeting of the Texas, Arkansas, Oklahoma Section of the APS, Texas Section of the AAPT, and Zone 13 of the SPS

The TAOAPS Fall 2025 meeting will be hosted by Texas Christian University in Fort-Worth, Texas on October 9-11, 2025. The meeting will draw participants from all fields of physics and physics education throughout **Texas**, **Arkansas**, **and Oklahoma**.



The TAOAPS 2025 meeting website can be found at https://taoaps.tcu.edu.

Abstract Submission Information:

We encourage submissions for posters and contributed talks from ALL areas of physics.

The abstract submission deadline is Friday, **September 12, 2025.** [Abstracts]

Registration:

Online registration is open. The early registration deadline is Thursday, **September 18, 2025**. Late registration continues until Thursday, **October 9,** [Registration].

Student presentation judges: outstanding Oral Presentation and Poster Presentation Awards will be given to graduate and undergraduate students based on the excellence of their physics research and the quality of their presentations. If you have a PhD in physics or a related field, we would greatly appreciate your help in judging the student presentations. Please sign up to judge student oral and poster presentations here [link]. **We need your help, and students need your support!**

Invited plenary speakers:



C. Magnus L. Rittby, Professor of Physics and Astronomy, Texas Christian University –
 Quantum Theory, Many-body Theory, Infrared Spectroscopy



 Diana Berman, Associate Professor of Materials Science and Engineering, University of North Texas – Tribology, Nanostructures, Nanodevices



• **Puskar Chapagain,** Associate Professor of Physics, Southern Arkansas University – Physics Education



• Andrey Chabanov, Professor of Physics and Astronomy, University of Texas at San Antonio – Photonics, Wave Phenomenon in Periodic and Random Media



Matthew Klein, Assistant Professor of Physics, Southern Methodist University –
 Experimental Particle Physics



 Nikole Neilsen, Assistant Professor, University of Oklahoma - Astrophysics & Cosmology

In addition to the invited speakers, we will also have contributed talks and posters in all fields of physics research and a series of teaching and outreach workshops hosted by the Texas Section of the AAPT. We will have a welcome reception on the evening of Thursday, October 9.

The meeting organizers can provide a limited number of desks which different schools/departments can use for new student recruitment. Please contact Prof. Hana Dobrovolny (h.dobrovolny@tcu.edu).

Student Travel Awards:

There is a limited number of student travel grants for those who plan to give a presentation. The application form for student travel grants is available here.

Please complete steps 1-3 below by the abstract submission deadline to be eligible for a Student Travel Award.

- 1. Complete the <u>application form</u>.
- 2. Submit an APS abstract with the student as the first author and presenter. The abstract deadline is September 12, 2025.
- 3. Have your research supervisor or department chair complete the <u>form supporting the</u> travel award.

Additionally, you will also need to take the following steps before the meeting.

1. Register for the meeting by the registration deadline.

2. Join the American Physical Society. Membership is free for the first year for students. The application is online, and you need to make sure that you <u>add the Texas, Arkansas</u>, **Oklahoma Section**.

Travel awards will be **up to \$300** for as many students as possible, but funds are limited and will be given on a first-come, first-serve basis.

Student Outstanding Presentations and Posters Awards:

For several years, TAOAPS has sponsored cash awards for outstanding presentations by both undergraduate and graduate students at its annual meetings. Undergraduate and Graduate Student Outstanding Oral Presentation and Poster Awards will be given to the meeting presenters based on the excellence of the physics research and quality of the presentations. Details about this award can be found at this website. This award program is underwritten by the general operating fund of the Section but has benefited in the past from contributions by industry sponsors. Such contributions to the award program are always welcome.

Rules for Entering Undergraduate and Graduate Student Competition:

(This should be read by both students and faculty who help students submit abstracts)

Prizes will be awarded for outstanding papers presented by undergraduate and graduate students in both oral and poster sessions at the TAOAPS Fall Meeting. To compete, the following must be criteria must be satisfied:

- 1. The student must be the first author and presenter of the paper.
- 2. Students may compete in only one paper. In general, only one APS abstract is accepted with the same first author.
- 3. Undergraduate and graduate students should identify themselves as such when giving their oral or poster presentations to help the judges identify which presentations are eligible and need to be evaluated.

Texas, Arkansas, Oklahoma Section Distinguished Service Awards (TAOAPS-DSA)

This award is to recognize individuals who have made outstanding contributions over several years to the Texas, Arkansas, and Oklahoma Section of the APS. These contributions include leadership through service on the executive committee and/or TAOAPS sponsored activities such as the Fall and Spring Regional conferences, or other activities that significantly promote

excellence in Physics in the Texas, Arkansas, Oklahoma region. Award and nomination details are at the <u>DSA website</u>. The Distinguished Service Award nominations are due **Monday, September 22, 2025** and can be submitted <u>here</u>. Questions about the award should be emailed to Prof. Jeremy Holt (<u>holt@physics.tamu.edu</u>). Recipients will both be announced at the Fall 2025 meeting.

Weinberg and Hyer Student Research Awards

The Steven Weinberg and Robert S. Hyer Research Awards will be presented at the Fall 2025 TAOAPS meeting to recipients who must have been graduate or undergraduate students respectively when the research was performed. The research must be in physics or a physics-related subject, and it must have been presented by the student at a Texas, Arkansas, Oklahoma Section APS meeting within the past two years. The main criterion for the awards is excellence, including the potential impact of the research on the relevant scientific community. TAOAPS allows the research to be presented at the same meeting in which the award is presented.

WEINBERG AWARD NOMINATIONS:

The Texas, Arkansas, Oklahoma Section of the APS is now accepting nominations for the Steven Weinberg Research Award for graduate students. Details about the award and the nomination process are available at the <u>Weinberg Research Award website</u>. Nominations should be submitted by **Monday, September 22, 2025** through the online <u>portal</u>. Questions about the award should be emailed to Prof. Jeremy W. Holt (<u>holt@physics.tamu.edu</u>). The award recipients will be announced at the Fall 2025 meeting.

HYER AWARD NOMINATIONS:

The Texas, Arkansas, and Oklahoma Section of the APS is now accepting nominations for the Robert S. Hyer Research Award for undergraduate students. Details about the award and the nomination process are available at the Hyer Research Award website. Nominations should be submitted by Monday, September 22, <a href="https://example.com/2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through-the-online-portal-2025-through

Congratulations to the 2024 APS Fellowship, Prize, and Award Recipients:

In 2024, a number physicists in the area of TAOAPS were awarded APS fellowships, prizes and awards as well as other international recognitions. Congratulations!

APS fellowship:

• Matthew Geoffrey Baring, Rice University

For fundamental contributions to the understanding of magnetars and strong magnetic field QED processes therein, for the application of cosmic ray acceleration theory to blazars and supernova remnants, and for service to the high energy astrophysics community.

• Rafael Verduzo, Rice University

For new concepts in the molecular design, development, and understanding of electrochemically active and stimuli-responsive polymers.

APS Awards:

APS Innovation Fund Grant:

Mario Borunda, Julius de Rojas, Derek Myers: Oklahoma State University
APS Innovation Fund Grant: For an immersive summer program on quantum information science designed for Indigenous middle and high school students to explore the intersection of modern science and culture.

Henry Primakoff Award for Early-Career Particle Physics

Kevin J. Kelly: Texas A&M University

For significant contributions to our understanding of the neutrino sector and proposing novel directions and search strategies, bolstering the physics output of current and future neutrino experiments.

 Jonathan F. Reichert & Barbara Wolff-Reichert Award for Excellence in Advanced Laboratory Instruction

Jason D. Slinker & David W. Taylor, The University of Texas at Dallas For continuous physical measurement laboratory improvements, leveraging industrial and academic partnerships that enable innovative and diversified independent student projects, and giving rise to practical skillsets yielding outstanding student outcomes.

• Max Delbrück Prize in Biological Physics

Devarajan Thirumalai: The University of Texas at Austin

For pioneering theoretical models that guided experimentalists and explained experimental results for protein and RNA folding, chromosome dynamics, molecular motors, and collective cell dynamics, and for changing our understanding of how molecular chaperones facilitate folding.

Maria Goeppert Mayer Award

Wennie Wang: The University of Texas at Austin

For outstanding contributions to the field of materials science, including pioneering research on defective transition metal oxides for energy sustainability, a commitment to broadening participation of underrepresented groups in computational materials science, and leadership and advocacy in the scientific community.

The Breakthrough Prize in Fundamental Physics was awarded to researchers who contributed to four experimental collaborations at CERN. The institutions in Texas, Arkansas, and Oklahoma participating in the experiments are:

• ALICE Experiment

University of Houston
University of Texas at Austin

CMS Experiment

Rice University
Texas A&M
Baylor University
Texas Tech University

• ATLAS Experiment

University of Texas at Austin University of Texas at Arlington Southern Methodist University University of Texas at Dallas University of Oklahoma Oklahoma State University

A full list of participating faculty members can be found here.

APS Global Physics Summit 2026

APS Global Summit (Joint March Meeting and April Meeting) will be held March 15-20, 2026, at the Colorado Convention Center, Denver, CO. This event is the largest physics research conference in the world, uniting 14,000 members of the scientific community across all disciplines of physics. Details of this meeting can be found at https://doi.org/10.1001/jhs.com/. The early registration will open soon, so stay tuned.

Section Name Change

As of June 18, 2025, our section has officially changed its name from the Texas Section of the APS (TSAPS) to the Texas, Arkansas, Oklahoma Section of the APS (TAOAPS). This change was approved by both the APS Council and our section membership via a formal ballot proposal.

The new name better reflects the full constituency of our section, which includes physicists from Texas, Arkansas, and Oklahoma. This change represents an important step in acknowledging and celebrating the contributions of our broader regional community.

We would like to extend our sincere thanks to everyone who contributed to this process—from the initial discussions within the section Executive Committee, to the thoughtful feedback provided during the open business meeting at the 2024 Fall TSAPS meeting, and especially to all who participated in the ballot vote. Your engagement and support were instrumental in making this transition a success.

We look forward to continuing our work together as the Texas, Arkansas, Oklahoma Section, and to building an even stronger and more inclusive regional physics community.

2025–26 Texas Section Executive Committee Members

Chair: Jeremy W Holt (04/25-04/26)

Texas A&M University

Chair-Elect: Gemunu Gunaratne (04/25–04/26)

University of Houston

Vice Chair: Felicia Mancui (04/25-04/26)

University of Texas El Paso

Past Chair: Kenichi Hatakeyama (04/25–04/26)

Baylor University

Secretary/Treasurer: <u>Amena Khan</u> (03/23–04/26)

University of Texas at Dallas

Assigned Council Representative: Kenneth R Podolak (01/23–12/26)

SUNY Plattsburgh

Member-at-Large: Joel Walker (03/23–03/26)

Sam Houston State University

Member-at-Large: <u>Joe Haley</u> (03/23–03/26)

Oklahoma State University-Stillwater

Member-at-Large: Saptaparna Bhattacharya (04/25-04/28)

Southern Methodist University

Member-at-Large: Elena Caceres (04/25–04/28)

University of Texas at Austin

Student Member: <a href="https://www.lightps

Rice University

Student Member: David Scherm (04/25-04/27)

University of Texas at Dallas

Newsletter Editors: Jeremy Holt (Texas A&M University), Gemunu Gunaratne (University of Houston).