



The Joint Fall 2019 Meeting of the Texas Section of the APS (TSAPS), Texas Section of the AAPT, and Zone 13 of the Society of Physics Students will be held October 24-26, 2019 at Texas Tech University in Lubbock, TX. The meeting will draw participants from all fields of physics and physics education throughout Texas and contiguous states.



[TSAPS 2019 Fall Meeting Website](#)

DEADLINES

[Abstract submission](#) for contributed and poster deadline is September 30.

[Online Registration](#) is currently available, and the early registration deadline is September 30. Higher fees apply after this date. Note that one need not be an APS member to register for the meeting.

STUDENT TRAVEL AWARDS

Application and registration are both due September 21 for consideration for travel awards. Travel awards will be \$50–250 for as many students as possible, but the funds are limited. Students are expected to attend the major events of the meeting including the banquet. Recipients will be notified by e-mail by early October. Once attendance at the meeting is confirmed a check will be issued to reimburse the applicant.

Students must fill out this form:

https://docs.google.com/forms/d/e/1FAIpQLSdtfyBzs9i2jmHK6jP8NdpCME1lIBa2EvOzUipTou1xXHij0A/viewform?usp=sf_link

Faculty sponsors must fill out this form:

https://docs.google.com/forms/d/e/1FAIpQLSeQC3tl0F2ExKzONPr3p3m4o8Pd_Szrf2xb5vRvnPsSvvbiSQ/viewform?usp=sf_link

Only applications with *both* forms supplied by the deadline will be considered.

Judge student presentations

Attendees with Ph.D.s are encouraged to sign up to judge student oral and poster presentations. We need you!

Please sign up here:

<https://forms.gle/QwWd5utYKsiME7Za6>

GRE Warning

This year, the physics GRE will be on the same date as the meeting. The SPS-oriented sessions will be concentrated on the Friday, and students can sign up for the GRE in Lubbock on the Saturday.

SPEAKERS

Banquet Speaker: TSAPS Banquet, 6:15 PM, Friday October 25 at McKenzie-Merket Alumni Center



Marc Abrahams (Editor and Author)

Marc Abrahams is the editor and co-founder of the *Annals of Improbable Research*, and the founder and master of ceremonies of the Ig Nobel Prizes. His work in both fora represents some of the best work combining humor with science, recognizing ideas that “make people laugh, then think.”

Plenary I, Friday October 25, 2019



Professor Kelly Nash (University of Texas-San Antonio) “Nanobio Interfaces”

Kelly Nash is an associate professor and the director of the Kleberg Advanced Microscopy Center at the University of Texas-San Antonio. Her research focuses

on both synthesis and characterization of nanomaterials, with a particular interest in biomedical and chemical sensor applications. She has won the Young Investigator Program Award from the Department of Defense, and has been named to the 40 Under 40 lists of both her alma mater, Dillard University, and of the San Antonio Business Journal. She is also the past chair of the American Physical Society’s conferences for undergraduate women in Physics at the national level.

Plenary II, Friday, October 25, 2019



Prof. Alessandra Corsi (Texas Tech University) Gravitational Wave Sources and their Electromagnetic Counterparts

Alessandra Corsi is an associate professor at Texas Tech University. Her research focuses on gravitational wave sources, supernovae and gamma-ray bursts. She presented the discovery of radio emission from the first neutron star merger discovered by LIGO at the National Press Club event. She currently holds a CAREER grant from the National Science Foundation, and has co-chaired the LIGO publications and presentations committee, and was previously honored as the L’Oreal-UNESCO National Award winner for women in science in Italy.

Plenary III, Saturday October 26, 2019



Professor Ruth Chabay (University of North Texas) Integrating Computation into Introductory Physics

Ruth Chabay is a professor at the University of North Texas. Her research focuses on physics education, particularly on the topic of integrating computational modeling into physics at all levels. She is the co-author of the textbook *Matter and Interactions*, and she is a Fellow of the American Physical Society.

Professor Claudia Ratti (University of Houston) Relativistic Heavy Ions and Quark-Gluon Plasmas

Claudia Ratti is an associate professor at the University of Houston. Her research focuses on theoretical calculations of the quantum chromodynamical interactions between quarks and gluons, both from first principles lattice QCD and more phenomenological approaches. She currently holds a CAREER grant from the National Science Foundation. She has been awarded the Giuseppe Borgia prize from the Italian Academy of Sciences for the best junior Italian physicist.

HYER STUDENT RESEARCH AWARDS

The Robert S. Hyer Research Award will be presented at the Fall 2019 TSAPS meeting to two pairs of recipients. The first pair will consist of a recipient who must have been a graduate student when the research was performed and this student's research advisor. The second pair will consist of a recipient who must have been an undergraduate student when the research was performed and that student's research advisor.

Plenary IV, Saturday, October 26, 2019:

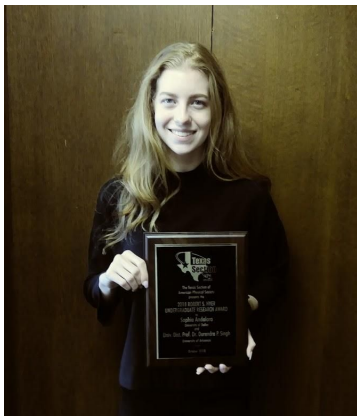


Graduate student Luis de Jesus (Texas A&M University) and his mentor Sarbajit Banerjee (Texas A&M University) received the Hyer Award

for their work on “Origins of diffusion barriers in intercalation hosts and for the development of X-ray microscopy as a probe of electronic structure inhomogeneities.” (Fall 2018 TSAPS)

The only criterion is excellence, including potential impact in the relevant scientific community. The research must be in physics or a physics-related subject, and it must have been presented at a Texas APS meeting within the past two years by either the student or the advisor, both of whom must have been TSAPS members at the time. We do allow the research to be presented at the same meeting in which the award is presented.

HYER AWARD NOMINATIONS: The Texas Section of the APS is now accepting nominations for the Hyer Award for both undergraduate and graduate students and their mentors. Details about the award and the nomination process are available at <https://www.aps.org/units/tsaps/awards/hyer/>. Nominations should be submitted by Friday, September 13, 2019. The award winners will be announced at the Fall 2019 meeting ([TSAPS Fall 2019](#)).



Undergraduate student Sophia Andaloro (University of Dallas) and her mentor Surendra Singh (University of Arkansas, not shown) received the Hyer Award for their work on “Fraunhofer Diffraction of Laguerre-Gaussian Vortex Beams” (Fall 2018 TSAPS)

TEXAS SECTION DISTINGUISHED SERVICE AWARD (TSAPS-DSA)

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

Award and nomination details are at <https://www.aps.org/units/tsaps/awards/dsa>. Distinguished Service Award nominations are due Friday, September 13, 2019. The award winners will be announced at the Fall 2019 meeting ([TSAPS Fall 2019](#)).

STUDENT PRESENTATION AWARDS

The Texas Section of the American Physical Society recognizes outstanding student presentations with cash prizes. Graduate students and undergraduate students are judged in separate categories. Both oral and poster presentations are eligible to win.

If you would like to help **judge the student presentations**, please sign up [here](#).



Poster presentations at the Fall 2018 Meeting at the University of Houston. Awards were given for outstanding poster presentations at both the graduate and undergraduate levels.

**CONGRATULATIONS TO OUR
NEWEST TSAPS AND TEXAS
UNIVERSITY FELLOWS**

Fulling, Stephen A. [2018]

Texas A&M University

Citation: For laying foundations for quantum field theory in curved spacetime, and for working to maximize communication between physics and mathematics, and between subfields of each.

Nominated by: Division of Gravitational Physics

Morosan, Emilia [2018]

Rice University

Citation: For experimental contributions to the understanding of correlated magnetic and superconducting materials, through the synthesis and study of unconventional magnetic systems, heavy fermion compounds and superconductors.

Nominated by: Division of Condensed Matter Physics

Padley, Paul [2018]

Rice University

Citation: For leadership and innovations in hadron collider operations, triggering and data acquisition on the CMS and D0 experiments as the US CMS Operations Manager, Leader of the US CMS Endcap Muon Project, Co-Leader of D0 Run IIb Trigger Upgrade and Leader of D0 Level 3/DAQ project.

Nominated by: Division of Particles and Fields

Yang, Ping [2018]

Texas A&M University

Citation: For sustained pioneering research in light scattering and radiative transfer with various applications, especially in remote sensing of the Earth's atmosphere.

Nominated by: Forum on Industrial and Applied Physics

TSAPS CHAIR'S MESSAGE

Dear TSAPS Members:

The 2019 Joint Fall Meeting of the TSAPS, TSAAPT and Zone 13 of the Society of Physics Students will be held at Texas Tech University, October 24-26, 2019. Organizing Chair Tom Maccarone and his team have put together an impressive list of invited speakers in physics research and education. This meeting always offers an excellent opportunity for undergraduate and graduate students and postdoctoral scholars to present their work for the first time and to build their own network of physics colleagues. A number of career-building sessions and physics education workshops will be organized as well by the TSAAPT and TSAPS.

In addition to the plenary talks listed above, there will be several topical invited talks in the parallel sessions. Included among this year's invited speakers is John Bows, a United Kingdom (UK) physicist and R&D Director with PepsiCo, who is passionate about the physics of food production. The [American Physical Society](#) (APS) and [The Institute of Physics](#) (IOP), the UK counterpart of the APS, want to promote industrial applications of physics. John is the Chair of the *Physics in Food Manufacturing Group* of the IOP and will present examples of using physics in food production. Please encourage those looking for jobs outside of academia to attend John's talk to learn about some very interesting opportunities in the field.

For the students, Toni Sauncy at Texas Lutheran University will give a presentation

on how to run a successful SPS chapter. Prof. Sauncy has been a highly successful SPS chapter advisor both at Angelo State and at Texas Lutheran, and in between, worked at the national branch of SPS. Additionally, Prof. Nash, Prof. Sally Hicks of the University of Dallas and Prof. Sauncy will be presenting negotiating and professional development skills. Their presentation will include a focus on some issues that often arise for women, but is open to students of all genders.

An astrophysics special session featuring Jen Marshall of Texas A&M, Joan Wrobel of the National Radio Astronomy Observatory, Chris Packham of UT-San Antonio, Dave Pooley from Trinity University and Joe Romano of Texas Tech will cover the future landscape of astronomical facilities. Erin Scanlon from the University of Central Florida will give a talk in the area of physics education research, on the SCALE-UP concept. Kenichi Hatekeyama from Baylor will talk about the CMS experiment.

The TTU organizers plan a special session on quantum computing, and are willing to organize other special sessions as requested. If you are interested in the quantum computing session, contact Ismael De Farias (ismael.de-farias@ttu.edu), while for other sessions, please let Tom Maccarone (thomas.maccarone@ttu.edu) know, and talks can be sorted to meet your needs.

The meeting will also offer an opportunity for CMS collaboration members to meet. Please contact Andrew Whitbeck (andrew.whitbeck@ttu.edu) for details on this.

After a summer of research, please think about a student/mentor pair at either the

undergraduate or graduate level whose work you find particularly impressive and nominate them for the Robert S. Hyer Award. Nominations are due September 13 to Hyer@aps.org. The award criteria, a list of past recipients and information about the award are available at [Hyer Award](#).

Another award we hope to present at this fall's meeting is the Distinguished Service Award. More information about the award and a list of past recipients are available at: [Distinguished Service Award](#). Nominations are due September 13 to TSAPS Chair Sally Hicks at hicks@udallas.edu.

Last year's Joint Fall Meeting of the TSAPS, TSAAPT and Zone 13 of the Society of Physics Students at the University of Houston, October 19-20, 2018 was a great success. Organizing leads Donna Stokes and Rebecca Forrest did a fantastic job of putting everything together, and the TSAPS membership strongly supported the event. I anticipate that the 2019 meeting will offer our membership another stellar opportunity to present their research and to learn what others are doing. See you in Lubbock!

Sincerely,

Sally F. Hicks, TSAPS Chair

TSAPS EXECUTIVE COMMITTEE

Chair: [Sally Hicks](#) (4/19 - 3/20)
University of Dallas

Chair-Elect: [Rene Bellwied](#) (4/19 - 3/20)
University of Houston

Vice Chair: [Roland Allen](#) (4/19 - 3/20)
Texas A&M University

Past Chair: [Carlos Bertulani](#) (4/19 - 3/20)
Texas A&M University, Commerce

Secretary/Treasurer: [Walter Wilcox](#) (4/17 - 3/20)
Baylor University

Member-at-Large: [Michael Kesden](#) (4/17 - 3/20)
University of Texas at Dallas

Member-at-Large: [Christina Markert](#) (4/17 - 3/20)
University of Texas at Austin

Member-at-Large: [Joseph Haley](#) (4/19 - 3/22)
Oklahoma State University-Stillwater

Member-at-Large: [Jennifer Marshall](#) (4/19 - 3/22)
Texas A&M University

Assigned Council Representative
[Nora Berrah](#)
New England Section

Newsletter Editors:
Michael Kesden (Univ of Texas at Dallas),
Christina Markert (Univ of Texas at Austin),
and Thomas Maccarone (Texas Tech University)

Hyer Award Committee: Jodi Cooley (SMU), Surendra Singh (University of Arkansas) and Howard Lee (Baylor)

Distinguished Service Award Committee:
Heather Galloway (Texas State, 2019),
Suresh Sharma (UT Arlington, 2018), and
Linda E. Reichl (UT Austin)



TSAPS Executive Committee Members Carlos Bertulani (Chair at time of photo), Patrick Michaels (Legislative Correspondent for U.S. Senator John Cornyn), Christina Markert (Member-at-large), and Sally Hicks (Chair-Elect at time of photo) outside Senator John Cornyn's Office on APS Congressional Visit Day.