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TEXAS A&M UNIVERSITY



Physics & Astronomy

SMP

SATURDAY MORNING PHYSICS

15-YEAR ANNIVERSARY

DISCOVER HOW
PHYSICS
HELPS US
UNDERSTAND NATURE!

AN EVENT SERIES FOR TEXAS HIGH SCHOOL STUDENTS TO
LEARN ABOUT THE NEWEST DEVELOPMENTS IN MODERN PHYSICS

*particle physics, cosmology, exoplanets, astro-nuclear physics,
the future of energy, biophotonics, and much more!**

* WIN PRIZES (AND EARN A CERTIFICATE!)

ORGANIZERS & CONTACT: Prof. Ralf Rapp (rapp@comp.tamu.edu), Prof. Rainer Fries (rjfries@comp.tamu.edu),
Prof. Jeremy Holt (holt@comp.tamu.edu), Cyclotron Institute and Department of Physics & Astronomy at Texas A&M University

<https://cyclotron.tamu.edu/smp/>

PLEASE POST



TEXAS A&M UNIVERSITY

Physics & Astronomy

SATURDAY MORNING PHYSICS

PHYSICS: THE SCIENCE OF MATTER AND ENERGY AND THEIR INTERACTIONS

WHY?

Physics is a fundamental science to unravel the laws of nature so that we improve our understanding and appreciation of the world around us, from the smallest to the largest scales. For the 15th year running, you are cordially invited to attend and have fun while finding out how scientists are pushing the frontiers of our knowledge of fundamental particles, the phases of matter, the universe, and applications to address outstanding challenges of our future. Listen to and discuss with world-renowned scientists working at Texas A&M University who have agreed to share their newest insights and knowledge first-hand in an entertaining and understandable way.

HOW?

The format of each Saturday Morning Physics (SMP) event is as follows:

9:30 Registration and Welcome
10:00 Presentation
11:00 Discussion/Q&A

* **CERTIFICATE & PRIZES:** To be awarded a final "diploma" certificate, you need to complete at least 5 out of 7 events. Because there is a common thread through the event sequence, regular attendance is most beneficial. Prizes are given out at each event (except the first) based on the quizzes of the previous event.

WHERE?

📍 **PRE-REGISTRATION:** Please visit <https://cyclotron.tamu.edu/smp/> to register for free. When registering, make sure to take care of the liability waiver and acknowledge your parent's/guardian's consent by checking the appropriate box. Also remember to check back regularly for possible schedule updates or modifications.

LOCATION: Hawking Auditorium, Mitchell Institute for Fundamental Physics and Astronomy, Texas A&M University, College Station, TX 77843-4242
Tel. 979-845-1411
(Ask for Ralf Rapp, Rainer Fries or Jeremy Holt)

WHAT & WHEN?

Join us in 2022 to learn about the following topics:

- star formation and measurements
- exoplanet atmospheres and orbits
- energy production and comparisons
- nanomaterials and quantum computing
- the origins of matter and cosmic evolution

Saturday, January 29
Professor Louis Strigari

From the motions of stars to the nature of dark matter

Saturday, February 5
Professor Philip Adsley

Understanding stars by banging stuff together in a lab

Saturday, February 12
Professor Darren DePoy

Planets around other stars

Saturday, February 19
Professor Aldo Bonasera

Environmental protection and resources: Which energy for the future?

Saturday, February 26
Professor Alexei Sokolov

Biophotonics

Saturday, March 5
Professor Ivan Borzenets

Quantum Computing

Saturday, March 12
Professor Alexei Safonov

Discovering early universe with particle accelerators

No prerequisites necessary (except for your curiosity)!

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CREDIT: NASA, ESA, AND THE HUBBLE HERITAGE TEAM (STSCI/AURA)