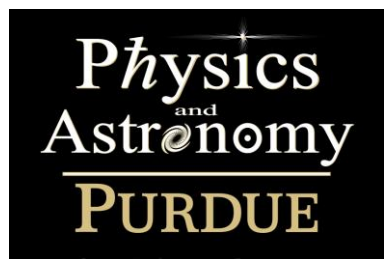


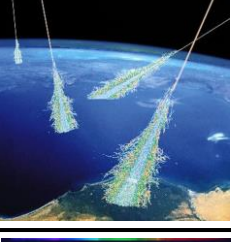
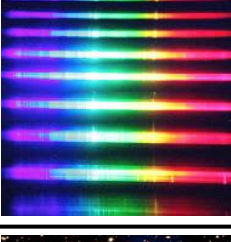

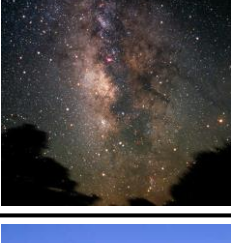

**Saturday
Morning**

Astrophysics at Purdue

A monthly series for students in grades 6-12

- Learn from Purdue astronomers and astrophysicists
- Explore natural phenomena of the cosmos
- Do some cool labs and experiments
- Satisfy your curiosities about “*what’s out there*”!



Session	Date	Activity	Topics
 Exploring the solar system	September 10, 2016	Create a true to scale model to compare the planets of our solar system.	Size and scale in astrophysics; features among our planets; model representations.
 Rockets	October 8, 2016	Design and launch water bottle rockets to in team competition.	The history of rocket design, aerodynamics, and geometry of flight.
 Meteorites and cratering	November 12, 2016	Set up experiments to to mimic the formation of impact craters.	Characteristics of meteorites and the process of impact cratering.
 Radiation from outer space	December 10, 2016	Assemble a cloud chamber to see evidence of cosmic radiation first hand.	The origins of extraterrestrial radiation. What does it mean to be radioactive?
 Star formation and classification	January 14, 2017	Use color and brightness to identify and categorize types of stars.	What color tells us about the elemental nature of materials. Why stars shine.
 Dark matter	February 11, 2017	Build a model dark matter detector to try identify the existence of dark matter.	What is dark matter? What does it do? Where is it?
 Exploding stars	March 11, 2017	Conduct experiments to model three ways in which stars self destruct	Compare energy differences among supernovae and gamma ray bursts.
 Constellations	April 8, 2017	Use sky charts and planetarium software to learn about constellations.	What are constellations? What do they consist of and how do we find them?
 Observing the night sky	May 13, 2017 (Evening session 9:30 PM; rain date May 20)	Use telescopes at the West Lafayette Observatory to explore the night sky.	What’s out there above us in the night sky?

Where: Purdue Department of Physics and Astronomy, West Lafayette campus

When: 10:30 AM-12:00 PM; Second Saturday of the month

Saturday Morning Astrophysics at Purdue is free of charge, but *registration is required*

For details and to sign up on-line any time use the link below.

<http://www.physics.purdue.edu/outreach/saturday-morning/>



Saturday Morning Astrophysics at Purdue (SMAP) is offered through Purdue University Department of Physics and Astronomy Outreach

