

Fall, 2026

Issue 63



Long Island Physics Teachers Association Newsletter



Fall Conference	Sat Oct 24
Physics Olympics	Thurs Mar 18
Spring Conference	Sat Apr 10
AP/IB Physics Exams Review	Sat May 22
LIPTA Potluck	Mon June 28

President's Message

I think, and perhaps you do too, about what matters most in teaching, and specifically in teaching physics. Those who develop policies and curricula certainly give this question a lot of thought. The rest of us work to create lessons that inspire our students and leave them with lasting understanding and memories.

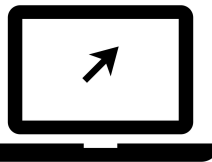
There was a time when we might happily spend the first four months of the school year building a solid understanding of kinematics. Today, the focus has shifted toward understanding why things move rather than how they move, and kinematics barely gets a mention in the Regents and AP Physics curricula. That may have surprised some of us, but we're still teaching great physics.

I've been thinking about what matters most because the question came up at the recent memorial service for my mother. Mum was a teacher who became headmistress of an all-girls K-11 school in Montreal. She expanded programs ranging from foreign languages to science and championed education for girls.

At her memorial, many people spoke about her influence on their lives. What struck me was that they talked less about the programs she introduced and more about how she treated people. Mum was direct, rarely one to sugar-coat things, but her former students and colleagues remembered that she cared about them, challenged them to do more than they thought possible, and led by example. Many credited her with helping them achieve far more than they had imagined.

Most of our students won't pursue careers in physics. I want them to leave my classroom with a better understanding of how the world works and the confidence to tackle difficult problems. Perhaps one of the best ways to help them get there is to recognize each student as an individual, with strengths and potential of their own.

As we work on new curricula and lesson plans, let's remember that **how we teach and how we treat our students may matter just as much as what we teach.**



Check the
LIPTA website
www.lipta.org
for any updated
information.

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A Fresh Look for LIPTA: Updated Website and New Monthly Email Blast

The LIPTA Web Team is proud to unveil our newly updated website! The site now features a more contemporary look, with the most relevant information displayed front and center on the homepage. We've simplified navigation, eliminated redundancies, and made it easier than ever for you to find information about upcoming events and register to attend. Visit lipta.org to explore the changes!

In addition to the website updates, LIPTA members may have noticed a new LIPTA News and Upcoming Events email arriving in their inboxes over the past two months. This monthly email keeps members informed about upcoming LIPTA events, as well as events hosted by other organizations, important announcements, professional opportunities, and useful resources.

Haven't received the LIPTA email? Check your spam folder and be sure to add "lipta.news@gmail.com" to your contacts or approved senders list so you don't miss future updates.

Have something to share? We welcome submissions from LIPTA members! Simply use the submission link at the bottom of any LIPTA News and Upcoming Events email to suggest an event, announcement, opportunity, or resource for an upcoming edition.

We're excited about these improvements and hope they make it easier for our members to stay informed, connected, and engaged with LIPTA!

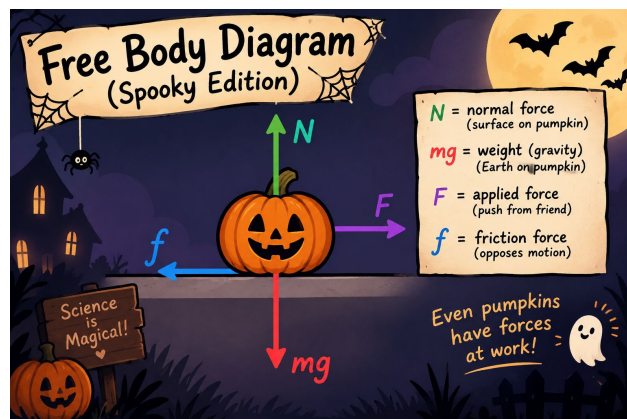
Halloween Physics: It's Frighteningly Fun!

🎃 *May the force be with you...
and the ghosts be behind you!*

👻 *Keep calm and carry a
scary amount of momentum!*

⚡ *Have a shockingly good
Halloween!*

🧙 *Witch way does the force
go?*



Did You Know ...

by Harry Stuckey



Nowadays, the demarcation between astronomy and astrophysics is somewhat blurred with plenty of overlap, but it wasn't always so. Astronomy is a science that has been around for centuries. From its earliest beginnings and spanning many cultures, astronomy has primarily measured and cataloged the positions, motions, and luminosities of objects in space. This is essential for navigation, timekeeping, and calendar-making, but does not include speculation about physical processes.

In 1835, Auguste Comte, a French philosopher, stated that humanity would never know the chemical composition of the stars. He believed that to be the perfect example of knowledge that science would never resolve. Of course, he was wrong, and it only took a couple of decades for scientists to refute him. The key to this was the analysis of starlight, fostering the intersection of physics and astronomy that became astrophysics.

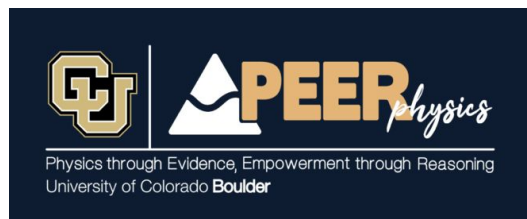
In 1802, English chemist William Wollaston noticed dark features in the solar spectrum. Twelve years later, German physicist Joseph von Fraunhofer rediscovered the dark lines missing from what was thought to be a continuous spectrum from sunlight. While establishing stellar spectroscopy, Fraunhofer meticulously mapped and labeled over 570 dark lines, but he offered no explanation for their origin. 1851, German chemist Robert Bunsen (yes, THAT Bunsen) met German physicist Gustav Kirchhoff (of the famous circuit laws) at the University of Breslau, and the two became friends. A year later, Bunsen was hired to teach at the University of Heidelberg and quickly arranged for Kirchhoff to join him, ultimately leading to a fruitful partnership.

In 1855, Bunsen perfected the burner that bears his name, which produced an extremely hot and clean flame that would not add color to the flame tests used in identifying materials. In 1859, Kirchhoff suggested that they try to form prismatic spectra of these colored flames. To that end, the two scientists devised an improved spectroscope and used it to identify the characteristic emission spectra of various elements. Bunsen was also able to identify cesium and rubidium as new elements. Meanwhile, Kirchhoff passed white light through materials and saw that some light was absorbed, leaving dark lines in the continuous spectrum. It was noted that the dark lines corresponded to the bright lines of the same element's emission spectrum. This led to his formulation of three Laws of Spectroscopy. He then pioneered identifying elements in the Sun by matching the absorption lines of sodium with Fraunhofer lines in the solar spectrum establishing the presence of that element in our star. That refutation of Comte marked an early success for what came to be known as astrophysics and the beginning of applying experimental techniques to astronomical phenomena.

LIPTA FALL CONFERENCE

Saturday, Oct 24

Adelphi University



Presenters from the Peer Physics program at the University of Colorado Boulder will offer two sessions exploring how to create meaningful opportunities for students to deepen their understanding of physics through collaborative learning and peer support.

Time	Activity
8:30	Registration and Breakfast
9:00	Welcome
9:15	PEER Physics Session 1: Arguing from Evidence (Electrostatics)
10:30	Coffee Break / Networking
10:45	PEER Physics Session 2: Waves Unit Preview
12:00	Adjourned / Lunch Break (on your own)
12:30	Optional Collaborative Work Sessions

3 CTLE credits
are available to
attendees

12:30 – 2:00 pm – Optional Post Conference
NYSSLS Collaborative Work Sessions:
“Cluster Writing Workshop” & “Thermal Tales Lab Preparation”
(Additional CTLE credits available)

***** Lunch will not be provided *****

Register by October 18th for Early Bird pricing

Current Members: \$15

Non-members: \$30 (includes 1 year membership)

\$5 added to amounts above after October 18th