



# Teacher Enrichment Program

## October 2020 Newsletter

### Events Calendar

CEE and TEP *Thank You* for participating in new Virtual Bite of Science programming! Click [here](#) to view upcoming sessions and distinguished guest speakers.

#### Zoom Session for High School Students!

**“Go Behind the Scenes on STEM”**  
**Saturday, October 31, 1 - 3pm ET**

This session is an exciting opportunity for students to speak personally with alumni of CEE’s signature programs:

**Research Science Institute**  
**USA Biolympiad**

**Registration** for the **free** virtual session is open to U.S. high school students nationwide. The Center for Excellence in Education actively advocates for diversity amongst its program participants.

#### Save the Date!

**“Taking a Drug from Idea to Market”**

**Thursday, November 5, 1 - 2pm ET**

Virtual Panel Discussion

with keynote address from:

**Dr. Michelle McMurry-Heath**  
**President & CEO**

Biotechnology Innovation Organization

**By Invitation Only**

Click [here](#) to register.



### Infinite Possibilities in STEM

#### Science

##### Infinite Knowledge

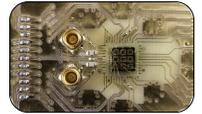
“Publishers agree to make journal summaries open and searchable in single repository.”



#### Technology

##### Infinite Transport

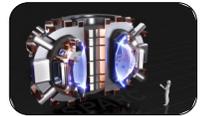
“Quantum teleportation is an important step in improving quantum computing.”



#### Engineering

##### Infinite Energy

“Seven studies describe progress thus far and challenges ahead for a revolutionary zero-emissions power source.”



#### Mathematics

##### ∞

“Some believe mathematics is universal; others consider it only as real as anything else humans have invented.”



Image credits: Getty; University of Rochester, J. Adam Fenster; CFS/MIT-PSFC, CAD Rendering by T. Henderson; Madhu K / Wikipedia, CC BY-SA

### Timeless STEM

#### Nobel Prize in Physics - Black Holes

“This year’s prize is about the darkest secrets of the universe,” said Göran K. Hansson, secretary-general of the Royal Swedish Academy of Sciences, at a press event.

This year’s Nobel Prize in Physics for work on black holes was awarded to British cosmologist Roger Penrose, German astrophysicist Reinhard Genzel, and American astrophysicist Andrea Ghez. Notably, Ghez is “only the fourth woman in history to receive the venerable physics prize.”

Lee Billings, [Scientific American](#), 6 October 2020

## A Lesson to Learn

### Lots of Lessons, Lots of Resources

TEP hosts an abundance of teaching resources on our [Lab Bench](#), including virtual and in-person lessons and activities, as well as digital education resources.

Some of our favorites this month (titles contain links):

#### [Concord Consortium](#)

##### Preparing brighter futures

*Dedicated to advancing STEM inquiry through technology to equip learners and empower lives...especially the most underserved...in a complex world.*

#### [Data Nuggets](#)

##### Co-designed by scientists teachers

*Activities with real scientific data allow students to build quantitative abilities through engaging in scientific processes. (Contact [Kim](#) for access to teacher guides.)*

#### [TRYEngineering](#)

##### Inspires the Engineers of Tomorrow

*TryEngineering aims to empower educators to foster the next generation of technology innovators.*

#### [National Geographic](#)

##### Classroom Resources

*This month's highlights: Women in STEM, Citizen Science, Exploring with GIS, SIMOC (an interactive 'life on Mars' simulator), and more!*

#### [TED Ed](#)

##### Lessons Worth Sharing

*Feed students' curiosity. Create customized lessons. Inspire your students to share their big ideas. (Students ask for TED Ed!)*

## The Observable Infinite

### Dr. Molly S. Peeples



Dr. Molly S. Peeples is an astrophysicist and Research Science Institute alum ('00). She also has been a [speaker](#) for CEE's TEP Bite of Science. Peeples earned her undergraduate degree in Physics as

*Photo Credit: STScI MIT and her MS*

and PhD in Astronomy at The Ohio State University.

When asked what sparked her interest in astronomy, Peeples cited her undergraduate studies in physics at MIT, specifically learning about the [Wilkinson Microwave Anisotropy Probe \(WMAP\)](#), a [deep-space-probe-based](#) universe-mapping system.

Dr. Peeples is now an AURA Associate Astronomer at the Space Telescope Science Institute (STScI). As a self-described theorist, Peeples researches the evolution of galaxies, specifically the "interplay between galaxies and the intergalactic and [circumgalactic](#) media."

Peeples states that she thoroughly enjoys sharing processes and discoveries with a network of collaborators across the country.

At STScI, Peeples is a member of the [WFIRST](#) team, the chair of the [WFIRST Wide Field Imager Synthetic Data Working Group](#), and is one of the first creators of the [Hubble Spectroscopic Legacy Archive](#). Peeples's observational projects include: [KODIAQ](#) (a focus on quasars) and [AMIGA](#) (a Hubble+GBT Andromeda galaxy halo mapping program).

If you're wondering what life's been like for a woman with so many accomplishments under her belt, visit Dr. Peeples's [personal STScI webpage](#), where she shares her "[trajectory](#)." Molly grew up attending public school in Columbia, South Carolina, where she pursued extracurricular science and math activities, including RSI. Dr. Molly Peeples now shares her thoughts on science and life on her [Twitter account](#).

[Read TEP's extended article about Astrophysicist and RSI Alum Dr. Peeples here.](#)