

# What's New: Speaking of Science Fall 2018

K-12

**Dr. Darryl Holliday**

**University of Holy Cross - Food Science**

Students will learn about product development, making informed food choices, and technological advances in food preparation in Dr. Holliday's two presentations, "Food Science and Its Impact in Today's World," and "3D Printing of Foods: Moving Beyond Plastics."

K-12

**Dr. C. Shawn Sun**

**Louisiana Tech - Civil Engineering**

"The Beauty of Bridges"

presentation will spark students' interest in structural engineering. A good thing, because Louisiana and the U.S. have an enormous number of bridges that are structurally deficient, and there is a great need for young engineers in this profession.



K-12

**Dr. Peter Yaukey**

**University of Holy Cross - Biology**

Dr. Yaukey can lead your class on a walk on school grounds or a nearby greenspace to look for and discuss "Urban Birds of Louisiana," plus ways to improve ecological integrity for birds.



He also can join your class on your field trip to the Audubon Zoo or Jean Lafitte National Park in New Orleans and discuss animals or park ecology concepts with the group. In "Hurricanes of Louisiana,"

students will learn about this relevant topic, as well as informed response and preparation concepts.

K-12

**Dr. Rakitha Beminiwatha**

**Louisiana Tech - Particle Physics**

In "Minute Physics Q & A," students start with a Minute Physics video that illustrates a physics concept, and then the group engages in scientific discussions, and gathers ideas for STEM activities.

K-12

**Dr. Joan Lynam**

**Louisiana Tech - Chemical Engineering**

Rice is the staple food for more than half of the world. The hulls removed from rice creates a big waste issue because they are very strong and difficult to compost. In the "Rice Hulls – How Can We Use Them?" presentation, Dr. Lynam describes ways to use chemistry to convert this waste product into fuels and other higher value products.

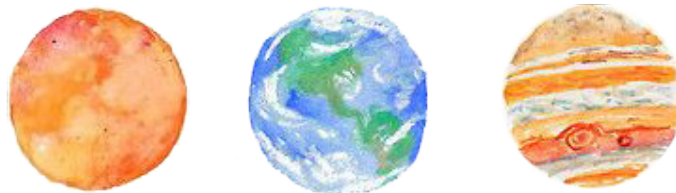


K-12

**Dr. Suniti Karunatillake**

**LSU - Planetary Science**

Follow the journeys of planetary scientists as they live what science fiction writers could only imagine a decade ago, with the presentation, "Living Science Fiction on Mars and Beyond." In "Discoveries Unimagined by 2001: A Space Odyssey," hear about the scientific findings since the launch of the Mars Odyssey spacecraft. "Discovering Mars" highlights recent Mars missions and their findings on habitability and geology.



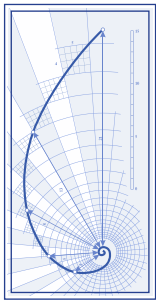
K-12

**Dr. Gabriele Morra**

**ULL - Geophysics**

Dr. Morra has three new presentations available:

1. [Spoiler alert] Rocks on terrestrial planets like Earth are "The Strongest Material in the Universe," and in this presentation, Dr. Morra discusses the strength of Earth rocks vs. rocks from other planets, whether rocks deep inside Earth are stronger than surface rocks, and more.
2. In 2014, seismologists in Italy were arrested for not having predicted a major earthquake. In "Can we predict earthquakes?," Dr. Morra delves into earthquakes and if they are predictable, and how to predict them, and where they will happen.
3. "Is there life in the giant oceans in the icy satellites of the solar system?" covers the recent exciting discoveries of liquid oceans under the ice on Jupiter and what the scientific community is doing to find out if extraterrestrial life exists there.



9-12

**Dr. Quang Cao**

LSU AgCenter - Renewable Natural Resources

In “Have Fun with Math,” students will enjoy games and scenarios that demonstrate math concepts that we encounter in our daily lives.

6-12

**Dr. Don Liu**

Louisiana Tech - Applied Mathematics

The 21st century is the digital world. Everything is related to mathematics, including digital media, cellphones, cameras, credit cards, rocket launching, etc. Dr. Liu explores these concepts, plus how mathematics is the language of the universe, in his presentation, “Mathematics, Computational Mathematics and Applications.”

9-12

**Dr. Lehman Ellis**

University of Holy Cross - Biological Sciences

Oysters are interesting to study because they are very biologically unique in a number of ways. Scientists are especially interested in their ability to quickly heal precancerous lesions. Learn more about these unique molluscs in “Oysters: good news – bad news.” In “Earth is a microbial world with a few contaminating organisms,” Dr. Ellis describes the great unexplored part of our planet: **microorganisms**. They are everywhere, including in the clouds and deep under the crust of the Earth, and are vital to life on this planet.

6-12

**Dr. Brooks Ellwood**

LSU - Geology

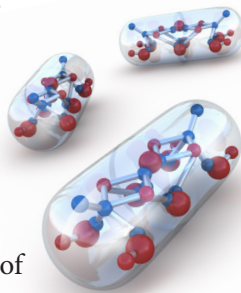
Dr. Ellwood’s two geology presentations are now joined by a new third presentation about the **LSU Indian Mounds**, which scientists have studied and discovered they are 6,100 years old, making them some of the oldest manmade edifices in North America!

6-12

**Dr. Jayalakshmi Sridhar**

Xavier University - Chemistry

Modern chemistry has a very important role in medicine and industry, and Dr. Sridhar has three presentations that delve into the role of **chemistry** in the treatment of disease, discovering new medicines, and more.



6-12

**Dr. Brian Crother**

Southeastern - Biological Sciences

Scientific names can be intimidating, but Dr. Crother broaches the topic in an easy, accessible and fun way with, “What’s in a Name? The Topsy Turvy World of **Scientific Names**.” In “Snakes in Film: Farces and Facts,” students will enjoy movie clips of **snakes** with bad attitudes and exaggerated features and then discuss the real lives of snakes.



6-8

**Dr. Vladimir Kolesnichenko**

Xavier University - Chemistry

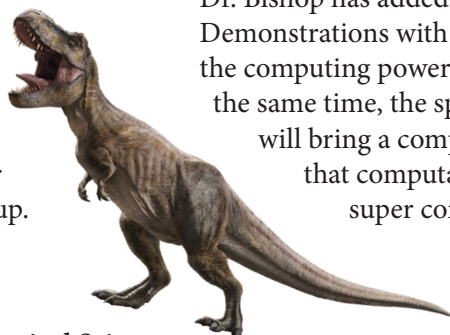
A new chemistry presentation by Dr. Kolesnichenko is available for middle school students, titled, “**Oxygen**: the essential element.”

6-12

**Dr. Gergana Nestorova**

Louisiana Tech - Biotechnology

With the presentation, “The Science of Jurassic World, or, How to make a Dinosaur,” Dr. Nestorova, an expert in genomics and biotechnology, can answer all of the dinosaur lab questions you can dream up.



6-12

**Dr. Thomas Bishop**

Louisiana Tech - Molecular Modeling

Dr. Bishop has added a new presentation titled, “**Supercomputing**: Demonstrations with a portable parallel computer.” Students learn how the computing power of super computers has grown immensely, while at the same time, the space they take up in a room has shrunk. Dr. Bishop will bring a computer to demonstrate the molecular simulations that computational researchers can do with Louisiana’s powerful super computers.

6-12

**Dr. Brian Adams**

University of Holy Cross - Physical Science

Back in the days of yore, alchemists had a few tricks up their sleeves for a sly financial advantage. In Dr. Adams’ entertaining presentation, “**Alchemy** and the Birth of Modern Chemistry,” he describes the history of chemistry and how the scientific method and technology has changed in the modern era, as well as the amount of scientific information that has been generated in the last 70 years.

[View the Speaking of Science catalog](#)