

# Speaking of Science

A Science & Engineering Speakers' Bureau



Sponsored by the National Science Foundation and the Board of Regents' Louisiana Experimental Program to Stimulate Competitive Research

## Need a speaker?

Speaking of Science (SoS) speakers are counted among the State's finest teaching and research talent in the science and engineering disciplines. They tailor their presentations to their respective audiences and are available free of charge for presentations to groups of K-16 students, educators, parents, and general audiences throughout Louisiana. To find the most current list of presentations, please visit our Website at <https://web.laregents.org/?p=390>.

## Sampling of Topics Offered

Computer



Mathematics



Physics



Biology

Astronomy



Medicine



Chemistry

Engineering



Geology



Environmental Sciences

## Program Objectives

- \* To spark the interest of students in the science and engineering professions.
- \* To increase public awareness of exciting research and development in Louisiana.
- \* To showcase the state's leading scientists and their cutting-edge research.

**To Schedule a Presentation:** Scheduling is easy! Just complete a short SoS Presentation Request Form, which you may obtain by calling Susan Jernigan at the Board of Regents (225) 342-4253, and faxing the form to (225) 342-3371, or by completing an on-line form on our website at <https://web.laregents.org/?p=390>.

**Presentation Length:** Most presentations are designed for a one-hour session. However, a speaker may be able to adjust his or her presentation to meet the needs of the requesting organization. Please specify any time limits when scheduling a presentation.

## Take a look at what SoS has to offer!












The presentations listed below are arranged by audience and subject area. Please contact our office for more information on each topic. Unless otherwise indicated, K-12 presentation topics are appropriate for all grade levels under which they are listed. **K-12 topics listed with an asterisk (\*) are also appropriate for presentations to parents and those listed with a plus sign (+) are also appropriate for presentations to K-12 educators.**



- Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University  
"Music in Motion: Laptops, Mobile Phones, and Making the Future of Making Music" ✨
- Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College  
"The Scientific Method for All" (2<sup>nd</sup> - 5<sup>th</sup>)
- Dr. Diane A. Blake, Professor, Tulane University School of Medicine  
"Let's make slime! Atoms, molecules and how they move" (New Orleans area only)
- Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans  
"Computers and Tablets - More than just for social networking!" +\* (2<sup>nd</sup> - 5<sup>th</sup>) ✨  
"Proteins, Enzymes and Other Mysteries of the World" +\* (2<sup>nd</sup> - 5<sup>th</sup>) ✨
- Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University  
"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* ✨
- Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University  
"From Facebook to Cyber Warfare: The Triumph of Information and Data Mining"  
"The Advent of Facebook: A Boon or a Threat?"  
"The Pursuit of Scientific Research: The need and implications"
- Dr. William Hollerman, Professor, University of Louisiana at Lafayette  
"Basic physics of music" +\* ✨  
"Low and slow cooking: Understanding the physics of barbecue" +\* ✨  
"Rockets and starships: An overview of astronomy and astrophysics in the early 21<sup>st</sup> century" \*+  
"Understanding wintergreen candy: A lifetime of making things glow in the dark" \*+  
"What is the role of physics in society?" \*+
- Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette  
"The Chicxulub Impact: The Collision That Killed the Dinosaurs" \*+  
"Think the Land is Flat Around Lafayette? Let's Look with Lasers!" \*+
- Dr. Candace Lawrence, Assistant Professor, Xavier University of Louisiana  
"Polymers and DNA: Discovering the World of Biomaterials" \*+
- Dr. Patricia Molina, Associate Professor, Louisiana State University Health Sciences Center at New Orleans  
"Girls Can Be Scientists" (New Orleans area only)
- Dr. Noshir Pesika, Assistant Professor, Tulane University  
"Sticky materials inspired by gecko lizards" \*+
- Dr. Gary Stringer, University of Louisiana at Monroe, Professor Emeritus of Geology and Curator, Division of Geosciences  
"Amazing Rocks and Minerals"

# 6<sup>th</sup> - 8<sup>th</sup> Grade

## General Science and Education

- Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College  
"Careers in Science and Engineering and the English and Mathematics it takes"  
"Learning or Teaching Effective Problem-Solving"   
"The Versatility and Wonders of Physics" 
- Dr. Diane A. Blake, Professor, Tulane University School of Medicine  
"Let's make slime! Atoms, molecules and how they move" (New Orleans area only)
- Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans  
"Computers and Tablets - More than just for social networking!" +\*   
"Proteins, Enzymes and Other Mysteries of the World" +\* 
- Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University  
"Chemicals, the Environment, and You" +\*  
"Climate Change"  
"So...you want to be a Scientist?"
- Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University  
"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 
- Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College  
"A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time" +\*  
"Our Spectacular National Park Areas and their Geology" +\*
- Dr. Steven Hall, Assistant Professor, Louisiana State University Agriculture Center  
"Faith and Reason: Historical and Current Relations between Science and Religion" +\*
- Dr. William Hollerman, Professor, University of Louisiana at Lafayette  
"Basic physics of music" +\*   
"Low and slow cooking: Understanding the physics of barbecue" +\*   
"Rockets and starships: An overview of astronomy and astrophysics in the early 21<sup>st</sup> century" +\*  
"Understanding wintergreen candy: A lifetime of making things glow in the dark" +\*  
"What is the role of physics in society?" +\*
- Dr. Patricia Molina, Associate Professor, Louisiana State University Health Sciences Center at New Orleans (New Orleans area only)  
"Girls Can Be Scientists" (New Orleans area only)
- Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette  
"4.6 billion years: a brief history of Earth" +\*   
"Exploring the Earth's oceans with a drill ship" +\*   
"The Geology of Louisiana" +\*   
"What's up with global warming?" +\* 
- Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University  
"Role of Different Branches of Science in Drug Discovery"

## Biological Sciences

Dr. Thomas Bishop, Associate Professor, Louisiana Tech University

"Supercomputing: Anytime, Anyplace" 

"The ABC's of DNA"

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+

"Can You Guess How Fast Trees Grow?"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Computers and Tablets - More than just for social networking!"+\* 

"Proteins, Enzymes and Other Mysteries of the World"+\* 

Dr. Omar E. Christian, Assistant Professor of Chemistry, McNeese State University

"Eat Your Colors: Anti-inflammatory and Antioxidant Activity from Fruits"

"Fungi Gone Crazy"

"Natural Products Chemistry: Exploring Nature's Medicine Chest"

"Exploring the Chemistry of Native Louisiana Plants"

Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University

"Chemicals, the Environment, and You"+\*

"Climate Change"

"So...you want to be a Scientist?"

Dr. Thomas G. Dobie, Professor, Director and Human Engineering Head, University of New Orleans

"Myths and Memories Surrounding Motion Sickness"

"Preventing Seasickness and Other Forms of Motion Discomfort"+\*

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"What more can your data do for you? Discovering Gold from your data using Data Mining"

"From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"

"Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"

"From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"

"Student Interdisciplinary Computing Research: Motivation and Opportunities"

"The Advent of Facebook: A Boon or a Threat?"

"The Pursuit of Scientific Research: The need and implications"

Dr. Dalton R. Gossett, Professor of Biological Sciences, Louisiana State University at Shreveport

"Believe It or Not: Plants Also Suffer From Stress"+\*

Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center

"Drinking Like a Fish: Water Quality in Aquaculture and the Environment"+\*

"Faith and Reason: Historical and Current Relations between Science and Religion"+\*

"Scarebots: Autonomous Vehicles Help Farmers and the Environment"+\*

"Thinking Like a Fish: Engineering in Aquaculture"+\*

Dr. Candace Lawrence, Assistant Professor, Xavier University of Louisiana

"Polymers and DNA: Discovering the World of Biomaterials" \*+

Dr. Patricia Molina, Associate Professor, Louisiana State University Health Sciences Center at New Orleans (New Orleans area only)


"How Alcohol Intoxication Can Affect How the Body Responds to Injury" (8th grade only)

"Girls Can Be Scientists" (New Orleans area only)

**"A child without education is like a bird without wings." - Tibetan proverb**

## Cyber Technology

Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University

"Music in Motion: Laptops, Mobile Phones, and Making the Future of Making Music" 

"Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" 

Dr. Thomas Bishop, Associate Professor, Louisiana Tech University

"The ABC's of DNA"

"Supercomputing: Anytime, Anyplace"

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+

"Can You Guess How Fast Trees Grow?"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Computers and Tablets - More than just for social networking!"\* 

"Proteins, Enzymes and Other Mysteries of the World"\* 

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"From Facebook to Cyber Warfare: The Triumph of Information and Data Mining"\*+

"Data Mining for Cybersecurity Applications: Opportunities and Challenges"

"What does your Genetic Profile and Facebook Profile have in common: Personalized Data Mining for Knowledge Discovery"

"Information Fusion and Data Mining Paradigms for the Cyber Domain: Computational Frameworks and Algorithmic Challenges"

"From Bio-informatics to Cyber-Informatics: *The Tsunami of Data and the Discovery of Knowledge*"

"The Advent of Facebook: A Boon or a Threat?"

"The Pursuit of Scientific Research: The need and implications"

Dr. Heath Tims, Assistant Professor, Louisiana Tech University

"Cyber Discovery - a multidisciplinary approach to training cyber citizens"\*+

"A Vehicle to Drive the Next Generation"

Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College

"Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+


"Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+


"Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+

## Earth and Environmental Sciences

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving" 

"The Versatility and Wonders of Physics" 

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+

"Can You Guess How Fast Trees Grow?"

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College

"Our Spectacular National Park Areas and their Geology"\*+

"A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+

Dr. Dalton R. Gossett, Professor of Biological Sciences, Louisiana State University at Shreveport  
"Believe It or Not: Plants Also Suffer From Stress"\*+

Dr. Malay Ghose-Hajra, Assistant Professor, University of New Orleans

"What Does a Civil Engineer Do?" \*+

"Reduce, Reuse, and Recycle towards a Sustainable Future"\*+

"Historic Civil Engineering Structures in Louisiana" \*+

"Restoring Coastal Louisiana - Benefits and Challenges" \*+

Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center


"Drinking Like a Fish: Water Quality in Aquaculture and the Environment"\*+

"Faith and Reason: Historical and Current Relations between Science and Religion"\*+

"Scarebots: Autonomous Vehicles Help Farmers and the Environment"\*+

"Thinking Like a Fish: Engineering in Aquaculture"\*+

Dr. Suniti Karunatilake, Planetary Scientist and Assistant Professor, Louisiana State University

"Living science fiction on Mars and beyond"\*+ 

"Discoveries unimagined by 2001: A Space Odyssey"\*+ 

"Discovering Mars"\*+ 

"Counting planetary sand grains with computer vision"\*+ 

"A story of water on Mars from maps of hydrogen and sulfur"\*+ 

Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette


"The Chicxulub Impact: The Collision That Killed the Dinosaurs"\*+

"Think the Land is Flat Around Lafayette? Let's Look with Lasers!" \*+

Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette

"4.6 billion years: a brief history of Earth" +\* 

"Exploring the Earth's oceans with a drill ship"+\* 

"The Geology of Louisiana"+\* 

"What's up with global warming?"+\* 

Dr. Gary Stringer, University of Louisiana at Monroe, Professor Emeritus of Geology and Curator, Division of Geosciences


"Ancient megatoothed sharks from northeast Louisiana"


"Fossil elephants from Louisiana and Texas"

## Engineering

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving" 

"The Versatility and Wonders of Physics" 

Dr. Thomas G. Dobie, Professor, Director and Human Engineering Head, University of New Orleans

"Myths and Memories Surrounding Motion Sickness"

"Preventing Seasickness and Other Forms of Motion Discomfort"\*+

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Malay Ghose-Hajra, Assistant Professor, University of New Orleans

"What Does a Civil Engineer Do?" \*+

"Reduce, Reuse, and Recycle towards a Sustainable Future"\*+





"Historic Civil Engineering Structures in Louisiana" \*+

"Restoring Coastal Louisiana - Benefits and Challenges" \*+


**"Education is our passport to the future, for tomorrow belongs to the people who prepare for it today." - Malcolm X**

- Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center  
 "Drinking Like a Fish: Water Quality in Aquaculture and the Environment"\*+  
 "Faith and Reason: Historical and Current Relations between Science and Religion"\*+  
 "Scarebots: Autonomous Vehicles Help Farmers and the Environment"\*+  
 "Thinking Like a Fish: Engineering in Aquaculture"\*+
- Dr. Brian S. Mitchell, Professor, Tulane University  
 "From Silly Putty to Superconductors: Careers in Materials Science and Engineering"\*+
- Dr. Noshir Pesika, Assistant Professor, Tulane University  
 "Sticky materials inspired by gecko lizards"\*+
- Dr. B. Ramu Ramachandran, Professor, Louisiana Tech University  
 "Electrochemistry - The Chemistry of Electricity"\*+  
 "Using Computations to Understand Chemical Reactions"\*+
- Dr. Heath Tims, Assistant Professor, Louisiana Tech University  
 "Cyber Discovery - a multidisciplinary approach to training cyber citizens"\*+  
 "A Vehicle to Drive the Next Generation"\*+
- Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College  
 "Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+  
 "Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+  
 "Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+

### Mathematics and Computer Sciences

- Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University  
 "Music in Motion: Laptops, Mobile Phones, and Making the Future of Making Music"   
 "Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" 
- Dr. Gary F. Birkenmeier, Professor of Mathematics, University of Louisiana at Lafayette  
 "Careers in Mathematics and Mathematical Research"\*+ (8<sup>th</sup> grade only)
- Dr. Thomas Bishop, Associate Professor, Louisiana Tech University  
 "So Many Computers So Little Time: How to use 1,000's of Computers at Once"  
 "The ABC's of DNA"  
 "Little Fe and Me: Demonstrations with a portable parallel computer"  
 "Bioinformatics + Computational Biology = Chromatin Folding in 1, 2, 3 and 6 Dimensions"
- Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans  
 "Computers and Tablets - More than just for social networking!"\*+   
 "Proteins, Enzymes and Other Mysteries of the World"\*+ 
- Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University  
 "What more can your data do for you? Discovering Gold from your data using Data Mining"  
 "From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"  
 "Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"  
 "From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"  
 "Student Interdisciplinary Computing Research: Motivation and Opportunities"  
 "The Advent of Facebook: A Boon or a Threat?"  
 "The Pursuit of Scientific Research: The need and implications"

Dr. Suniti Karunatilake, Planetary Scientist and Assistant Professor, Louisiana State University

"Living science fiction on Mars and beyond"\*+ 

"Discoveries unimagined by 2001: A Space Odyssey"\*+ 

"Discovering Mars"\*+ 

"Counting planetary sand grains with computer vision"\*+ 

"A story of water on Mars from maps of hydrogen and sulfur"\*+ 

Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College

"Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+


"Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+


"Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+

### Physical Sciences

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving" 

"The Versatility and Wonders of Physics" 

Dr. Diane A. Blake, Professor, Tulane University School of Medicine

"Let's make slime! Atoms, molecules and how they move"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Computers and Tablets - More than just for social networking!"\*+ 

"Proteins, Enzymes and Other Mysteries of the World"\*+ 

Dr. Omar E. Christian, Assistant Professor of Chemistry, McNeese State University

"Eat Your Colors: Anti-inflammatory and Antioxidant activity from Fruits"

"Fungi Gone Crazy"

"Natural Products Chemistry: Exploring Nature's Medicine Chest"

"Exploring the Chemistry of Native Louisiana Plants"

Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University

"Chemicals, the Environment, and You"\*+

"Climate Change"

"So...you want to be a Scientist?"

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College

"Our Spectacular National Park Areas and their Geology"\*+

"A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+

Dr. Galina Z. Goloverda, Assistant Professor, Xavier University of Louisiana

"Nanomaterials: Fun and Use?"\*+


Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center

"Faith and Reason: Historical and Current Relations between Science and Religion"\*+

**"When educating the minds of our youth, we must not forget to educate their hearts." - Plato**



Dr. William Hollerman, Professor, University of Louisiana at Lafayette

"Basic physics of music" +\* 

"Low and slow cooking: Understanding the physics of barbecue" +\* 

"What is the role of physics in society?"\*+

"Just exactly what does it mean to be physics major?"

"A scientist's view of developing patents and intellectual property"

"Rockets and starships: An overview of astronomy and astrophysics in the early 21<sup>st</sup> century"\*+

"Understanding wintergreen candy: A lifetime of making things glow in the dark"\*+

Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette

"The Chicxulub Impact: The Collision That Killed the Dinosaurs"\*+

Dr. Candace Lawrence, Assistant Professor, Xavier University of Louisiana

"Polymers and DNA: Discovering the World of Biomaterials" \*+

Dr. Daniel McCarthy, Associate Professor and Chemistry and Physics Department Head, Southeastern Louisiana University

"Fusion Energy: Creating a Star on Earth"\*+

Dr. Noshir Pesika, Assistant Professor, Tulane University

"Sticky materials inspired by gecko lizards"\*+

Dr. B. Ramu Ramachandran, Professor, Louisiana Tech University

"Electrochemistry - The Chemistry of Electricity"\*+

"Using Computations to Understand Chemical Reactions"\*+

Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University

"Role of Chemistry in Drug Discovery"



### **Biological Sciences**

Dr. Thomas Bishop, Associate Professor, Louisiana Tech University

"The ABC's of DNA"

"Supercomputing: Anytime, Anyplace"

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+


"Can You Guess How Fast Trees Grow?"


"Applying math in estimating tree height"

"Tough equations? Solve them easily using numerical methods"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Enzymes and Proteins - What do they do?"\*+ 

"Clean Energy From a Can of Soda!"\*+ 

"Using Computers to Cure Diseases"\*+ 

Dr. Omar E. Christian, Assistant Professor of Chemistry, McNeese State University

"Eat Your Colors" Anti-inflammatory and Antioxidant activity from Fruits"

"Fungi Gone Crazy"

"Natural Products Chemistry "Exploring Nature's Medicine Chest"

"Exploring the Chemistry of Native Louisiana Plants"

- Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University  
 "Chemicals, the Environment, and You"\*+  
 "Climate Change"\*+  
 "So...you want to be a Scientist?"\*+
- Dr. Thomas G. Dobie, Professor, Director and Human Engineering Head, University of New Orleans  
 "Myths and Memories Surrounding Motion Sickness"  
 "Preventing Seasickness and Other Forms of Motion Discomfort"\*+
- Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University  
 "Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 
- Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University  
 "Adventures in Computer Science: Above and Beyond Game Programming and App Development"   
 "From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"  
 "From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"  
 "Have you Done your Computing Today? The Triumph of Computing as a Skill"   
 "Student Interdisciplinary Computing Research: Motivation and Opportunities"  
 "Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"  
 "The Advent of Facebook: A Boon or a Threat?"  
 "The Pursuit of Scientific Research: The need and implications"  
 "What more can your data do for you? Discovering Gold from your data using Data Mining"
- Dr. C. Edward Ferguson, Assistant Professor, McNeese State University  
 "Assisted Reproductive Technologies in Farm Animals and Humans"  
 "Biotechnology in Animal Production and Human Medicine"  
 "Stress in Farm Animals"
- Dr. Dalton R. Gossett, Professor of Biological Sciences, Louisiana State University at Shreveport  
 "Believe It or Not: Plants Also Suffer From Stress"\*+
- Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center  
 "Drinking Like a Fish: Water Quality in Aquaculture and the Environment"\*+  
 "Faith and Reason: Historical and Current Relations between Science and Religion"\*+  
 "Scarebots: Autonomous Vehicles Help Farmers and the Environment"\*+  
 "Thinking Like a Fish: Engineering in Aquaculture"\*+
- Dr. Candace Lawrence, Assistant Professor, Xavier University of Louisiana  
 "Polymers and DNA: Discovering the World of Biomaterials" \*+
- Dr. Vince LiCata, Associate Professor, Louisiana State University and A&M College  
 "HIV/AIDS: Science, Politics, and Artistic Responses"\*+  
 "Toward Living in Space: Biology Experiments on board NASA's Vomit Comet"\*+  
 "The Polymerase Chain Reaction (PCR): a multi-billion dollar biological reaction"\*+  
 "Funny Science: Using Humor to Convey Information about the Process of Science"\*+  
 "Science Blogging: the Good, the Bad, and How to Start Your Own"  
 "Astrobiology at LSU: IS there Extraterrestrial Life in the Universe?"  
 "Science in Plays and Movies: Science Fact versus Science Fiction"
- Dr. Leszek Malkinski, Associate Professor, University of New Orleans  
 "Micro-origami techniques for the fabrication complex magnetic structures"+  
 "Wireless stimulation of mammalian cells- a new application of multiferroic nanoparticles"+

**"The beautiful thing about learning is that no one can take it away from you." BB King**

Dr. Joanne Cain Marier, Section Chief of Health Law and Medical Ethics, LSU Health Sciences Center at New Orleans

"Medical Ethics: Framework and Case Studies"

"Allocation of Resources in Critical Care"

Dr. Mark Merchant, Assistant Professor of Biochemistry, McNeese State University

"The American Alligator: From Marsh to Medicine"\*+

Dr. Patricia Molina, Associate Professor, Louisiana State University Health Sciences Center at New Orleans (New Orleans area only)

"How Alcohol Intoxication Can Affect How the Body Responds to Injury" (8th grade only)

"Girls Can Be Scientists"


Dr. Alike Yu, Assistant Professor, Louisiana State University School of Dentistry

"Is a career in dentistry for me?"

## **Cyber Technology**

Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University

"Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" 

"STEAM: Techniques for using Sonic Arts to Integrate the Arts into STEM and STEM into the Arts" 

Dr. Edgar Berdahl, Assistant Professor, Louisiana State University, Center for Computation and Technology

"How to Program Computers to Synthesize Musical Sound" 

"Maker Faires, 3D Printing, and Prototyping New Digital Musical Instruments" 

Dr. Thomas Bishop, Associate Professor, Louisiana Tech University

"The ABC's of DNA"

"Supercomputing: Anytime, Anyplace"

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+


"Can You Guess How Fast Trees Grow?"


"Applying math in estimating tree height"

"Tough equations? Solve them easily using numerical methods"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Enzymes and Proteins - What do they do?"+\* 

"Clean Energy From a Can of Soda!"+\* 

"Using Computers to Cure Diseases"+\* 

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"Adventures in Computer Science: Above and Beyond Game Programming and App Development" 

"Data Mining for Cybersecurity Applications: Opportunities and Challenges"

"From Bio-informatics to Cyber-Informatics: *The Tsunami of Data and the Discovery of Knowledge*"

"From Facebook to Cyber Warfare: The Triumph of Information and Data Mining"\*+

"From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"

"Have you Done your Computing Today? The Triumph of Computing as a Skill" 

"Information Fusion and Data Mining Paradigms for the Cyber Domain: Computational Frameworks and Algorithmic Challenges:

"Student Interdisciplinary Computing Research: Motivation and Opportunities"

"Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry:

Discovering surprising Associative Rules and more using Data Mining"

"The Advent of Facebook: A Boon or a Threat?"


"The Pursuit of Scientific Research: The need and implications"

"What more can your data do for you? Discovering Gold from your data using Data Mining"

"What does your Genetic Profile and Facebook Profile has in common: Personalized Data Mining for Knowledge Discovery"

- Dr. Vince LiCata, Associate Professor, Louisiana State University and A&M College  
 "Science Blogging: the Good, the Bad, and How to Start Your Own"\*+
- Dr. Jeremy Mhire, Assistant Professor, Louisiana Tech University  
 "Cyber-Space, Cyber-Technology and Cyber-Citizenship: Old Issues Meet New Technology in the 21<sup>st</sup> Century"\*+  
 "Do I Really Know What I Think I Know? Thinking Critically About Issues in Cyber-Space"\*+
- Dr. Juana Moreno, Associate Professor, Louisiana State University  
 "Opportunities in Computational Materials Science"\*+
- Dr. Rastko Selmic, Associate Professor, Louisiana Tech University  
 "Flying Sensors"\*+
- Dr. Heath Tims, Assistant Professor, Louisiana Tech University  
 "Cyber Discovery - a multidisciplinary approach to training cyber citizens"\*+  
 "A Vehicle to Drive the Next Generation"\*+
- Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College  
 "Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+  
 "Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+  
 "Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+

### Earth and Environmental Sciences

- Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College  
 "Careers in Science and Engineering and the English and Mathematics it takes"  
 "Learning or Teaching Effective Problem-Solving"  
 "The Versatility and Wonders of Physics"
- Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center  
 "Let's Measure Trees"+  
 "Can You Guess How Fast Trees Grow?"  
 "Applying math in estimating tree height"  
 "Tough equations? Solve them easily using numerical methods"
- Dr. Pedro Derosa, Associate Professor, Louisiana Tech/Grambling State  
 "Using Computers to Clean Nuclear Wastes: Designing Molecules for Nuclear Waste"+
- Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University  
 "Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \*
- Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College  
 "Our Spectacular National Park Areas and their Geology"\*+  
 "A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+
- Dr. Malay Ghose-Hajra, Assistant Professor, University of New Orleans  
 "What Does a Civil Engineer Do?"  
 "Reduce, Reuse, and Recycle towards a Sustainable Future"\*+  
 "Historic Civil Engineering Structures in Louisiana"  
 "Restoring Coastal Louisiana - Benefits and Challenges"
- Dr. Dalton R. Gossett, Professor of Biological Sciences, Louisiana State University at Shreveport  
 "Believe It or Not: Plants Also Suffer From Stress"\*+

**"Education is learning what you didn't even know you didn't know."  
 - Daniel J. Boorstin**

Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center

"Drinking Like a Fish: Water Quality in Aquaculture and the Environment"\*+

"Faith and Reason: Historical and Current Relations between Science and Religion"\*+

"Scarebots: Autonomous Vehicles Help Farmers and the Environment"\*+


"Thinking Like a Fish: Engineering in Aquaculture"\*+

Dr. Suniti Karunatillake, Planetary Scientist and Assistant Professor, Louisiana State University

"Living science fiction on Mars and beyond"\*+ 

"Discoveries unimagined by 2001: A Space Odyssey"\*+ 

"Discovering Mars"\*+ 

"Counting planetary sand grains with computer vision"\*+ 

"A story of water on Mars from maps of hydrogen and sulfur"\*+ 


Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette


"The Chicxulub Impact: The Collision That Killed the Dinosaurs"\*+

"Think the Land is Flat Around Lafayette? Let's Look with Lasers!" \*+

Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette

"4.6 billion years: a brief history of Earth" \*+ 

"Exploring the Earth's oceans with a drill ship"\*+ 

"The Geology of Louisiana"\*+ 

"What's up with global warming?"\*+ 

Dr. Gary Stringer, University of Louisiana at Monroe, Professor Emeritus of Geology and Curator, Division of Geosciences

"*Carcharocles*, a 34-million-year-old megatoothed shark from northeast Louisiana"

"Fossil elephants from Louisiana and Texas"

## **Engineering**

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving"

"The Versatility and Wonders of Physics"

Dr. Edgar Berdahl, Assistant Professor, Louisiana State University, Center for Computation and Technology

"How to Program Computers to Synthesize Musical Sound" 

"Maker Faires, 3D Printing, and Prototyping New Digital Musical Instruments" 

Dr. Pedro Derosa, Associate Professor, Louisiana Tech/Grambling State

"Using Computers to Clean Nuclear Wastes: Designing Molecules for Nuclear Waste"+

Dr. Thomas G. Dobie, Professor, Director and Human Engineering Head, University of New Orleans

"Myths and Memories Surrounding Motion Sickness"

"Preventing Seasickness and Other Forms of Motion Discomfort"\*+

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"ABET and the Role of Students during Accreditation Process"\*+

Dr. Afef Fekih, Associate Professor, University of Louisiana at Lafayette

"Electrical Engineering: Past, present and future"

Dr. Malay Ghose-Hajra, Assistant Professor, University of New Orleans

"What Does a Civil Engineer Do?" \*+




"Reduce, Reuse, and Recycle towards a Sustainable Future"\*+

"Historic Civil Engineering Structures in Louisiana" \*+

"Restoring Coastal Louisiana - Benefits and Challenges" \*+

- Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center  
 "Drinking Like a Fish: Water Quality in Aquaculture and the Environment"\*+  
 "Faith and Reason: Historical and Current Relations between Science and Religion"\*+  
 "Scarebots: Autonomous Vehicles Help Farmers and the Environment"  
 "Thinking Like a Fish: Engineering in Aquaculture"\*+  
 Dr. Guoqiang Li, Professor, Louisiana State University  
 "Biomimetic Self-Healing Composite Materials"  
 Dr. Yuri Lvov, Professor, Louisiana Tech University  
 "Nanotechnology based on natural objects: biomimetic for cyborg microorganisms and smart bone implants"  
 Dr. Brian S. Mitchell, Professor, Tulane University  
 "From Silly Putty to Superconductors: Careers in Materials Science and Engineering"\*+  
 Dr. Dimitris Nikitopoulos, Professor, Louisiana State University  
 "Small Things Make a Big Contributions to Medicine"\*+  
 Dr. Noshir Pesika, Assistant Professor, Tulane University  
 "Sticky materials inspired by gecko lizards"\*+  
 Dr. B. Ramu Ramachandran, Professor, Louisiana Tech University  
 "Electrochemistry - The Chemistry of Electricity"\*+  
 "Using Computations to Understand Chemical Reactions"\*+  
 Dr. Rastko Selmic, Associate Professor, Louisiana Tech University  
 "Flying Sensors"\*+  
 Dr. Heath Tims, Assistant Professor, Louisiana Tech University  
 "Cyber Discovery - a multidisciplinary approach to training cyber citizens"\*+  
 "A Vehicle to Drive the Next Generation"\*+  
 Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College  
 "Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+  
 "Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+  
 "Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+  
 Dr. Wanjun Wang, Associate Professor, Louisiana State University and A&M College  
 "Small Things Make Big Contributions to Medicine"

### **General Science and Education**

- Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College  
 "Careers in Science and Engineering and the English and Mathematics it takes"  
 "Learning or Teaching Effective Problem-Solving"  
 "The Versatility and Wonders of Physics"  
 Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans  
 "Enzymes and Proteins - What do they do?"\*+   
 "Clean Energy From a Can of Soda!"\*+   
 "Using Computers to Cure Diseases"\*+   
 Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University  
 "Chemicals, the Environment, and You"\*+  
 "Climate Change"\*+  
 "So...you want to be a Scientist?"\*+


**"Education breeds confidence. Confidence breeds hope. Hope breeds peace." - Confucius**

- Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University  
 "Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \*
- Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College  
 "Our Spectacular National Park Areas and their Geology"\*+  
 "A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+
- Dr. Afef Fekih, Associate Professor, University of Louisiana at Lafayette  
 "Electrical Engineering: Past, present and future"
- Dr. C. Edward Ferguson, Assistant Professor, McNeese State University  
 "Assisted Reproductive Technologies in Farm Animals and Humans"  
 "Biotechnology in Animal Production and Human Medicine"  
 "Stress in Farm Animals"
- Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center  
 "Faith and Reason: Historical and Current Relations between Science and Religion"\*+
- Dr. William Hollerman, Professor, University of Louisiana at Lafayette  
 "Basic physics of music" +\*  
 "Low and slow cooking: Understanding the physics of barbecue" +\*  
 "What is the role of physics in society?"\*+  
 "Just exactly what does it mean to be physics major?"  
 "A scientist's view of developing patents and intellectual property"  
 "Rockets and starships: An overview of astronomy and astrophysics in the early 21<sup>st</sup> century"\*+  
 "Understanding wintergreen candy: A lifetime of making things glow in the dark"\*+
- Dr. Vince LiCata, Associate Professor, Louisiana State University and A&M College  
 "HIV/AIDS: Science, Politics, and Artistic Responses"\*+  
 "Toward Living in Space: Biology Experiments on board NASA's Vomit Comet"\*+  
 "The Polymerase Chain Reaction (PCR): a multi-billion dollar biological reaction"\*+  
 "Funny Science: Using Humor to Convey Information about the Process of Science"\*+  
 "Science Blogging: the Good, the Bad, and How to Start Your Own"  
 "Astrobiology at LSU: IS there Extraterrestrial Life in the Universe?"  
 "Science in Plays and Movies: Science Fact versus Science Fiction"
- Dr. Arturo J. Mendez, D.D.S., M.Sc., Professor and Head of the Department of Prosthodontics, Louisiana State University, Health Sciences Center  
 "Advances in the field of Dentistry and Prosthodontics"\*+  
 "Prosthodontic solutions to complex cases"\*+
- Dr. Ward Plummer, Professor, Louisiana State University  
 "Materials for the 21<sup>st</sup> Century: A Revolutionary - Not an Evolutionary Approach"\*
- Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette  
 "4.6 billion years: a brief history of Earth" +\*  
 "Exploring the Earth's oceans with a drill ship"\*+  
 "The Geology of Louisiana"\*+  
 "What's up with global warming?"\*+
- Dr. Leonard Spinu, Assistant Professor, University of New Orleans  
 "What's the Big Deal about Nano? A Short Introduction to Nanotechnology"\*+
- Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University  
 "Role of Different Branches of Science in Drug Discovery"  
 "Role of Chemistry in Drug Discovery"
- Dr. Alike Yu, Assistant Professor, Louisiana State University School of Dentistry  
 "Is a career in dentistry for me?"\*+

## Mathematics and Computer Sciences

Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University

"Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" 

"STEAM: Techniques for using Sonic Arts to Integrate the Arts into STEM and STEM into the Arts" 

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving"

"The Versatility and Wonders of Physics"

Dr. Edgar Berdahl, Assistant Professor, Louisiana State University, Center for Computation and Technology

"How to Program Computers to Synthesize Musical Sound" 

"Maker Faires, 3D Printing, and Prototyping New Digital Musical Instruments" 

Dr. Scott Beslin, Professor, Nicholls State University

"Pi For Dessert: A Mathematics Sampler"

Dr. Thomas Bishop, Associate Professor, Louisiana Tech University

"The ABC's of DNA"

"Supercomputing: Anytime, Anyplace"

Dr. Gary F. Birkenmeier, Professor, University of Louisiana at Lafayette

"Careers in Mathematics and Mathematical Research"\*+

"Applications of Abstract Algebra"\*+

Dr. Quang V. Cao, Professor of Forestry, Louisiana State University Agricultural Center

"Let's Measure Trees"+


"Can You Guess How Fast Trees Grow?"


"Applying math in estimating tree height"

"Tough equations? Solve them easily using numerical methods"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Enzymes and Proteins - What do they do?"+\* 

"Clean Energy From a Can of Soda!"+\* 

"Using Computers to Cure Diseases"+\* 

Dr. Weizhong Dai, Professor, Louisiana Tech University

"Simulation of Hydrogen Absorption/Desorption in Metal-H<sub>2</sub> Reactors for Hydrogen Storage"

"Simulation of Particle Motion Using the Generalized Finite-Difference Time-Domain Method"

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"Adventures in Computer Science: Above and Beyond Game Programming and App Development" 

"From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"

"From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"

"Have you Done your Computing Today? The Triumph of Computing as a Skill" 

"Student Interdisciplinary Computing Research: Motivation and Opportunities"

"Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"

"The Advent of Facebook: A Boon or a Threat?"

"The Pursuit of Scientific Research: The need and implications"

"What more can your data do for you? Discovering Gold from your data using Data Mining"

**"Education's purpose is to replace an empty mind with an open one."**

**Malcolm S. Forbes**



Dr. Suniti Karunatilake, Planetary Scientist and Assistant Professor, Louisiana State University

"Living science fiction on Mars and beyond"\*+ 


"Discoveries unimagined by 2001: A Space Odyssey"\*+ 

"Discovering Mars"\*+ 

"Counting planetary sand grains with computer vision"\*+ 

"A story of water on Mars from maps of hydrogen and sulfur"\*+ 

Dr. Yevgeniy Kostrov, Assistant Professor, Xavier University of Louisiana

"Recurrence Sequences" 

Dr. Rastko Selmic, Associate Professor, Louisiana Tech University

"Flying Sensors"\*+

Dr. Brygg Ullmer, Assistant Professor, Louisiana State University and A&M College

"Exploring the future of cultural computing, tangible visualization, and ICY STEAM (interactive computational science, technology, engineering, arts, and mathematics)"\*+

"Breaking Out of the Box: New Tools for Physically Linking Computers with the World"\*+

"Breathing Fire into Form: New Ways for Awakening Physical Objects through Embedded Computation"\*+

### Physical Sciences

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College


"Careers in Science and Engineering and the English and Mathematics it takes"

"Learning or Teaching Effective Problem-Solving"

"The Versatility and Wonders of Physics"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Enzymes and Proteins - What do they do?"\*+ 

"Clean Energy From a Can of Soda!"\*+ 

"Using Computers to Cure Diseases"\*+ 

Dr. Omar E. Christian, Assistant Professor of Chemistry, McNeese State University

"Eat Your Colors" Anti-inflammatory and Antioxidant activity from Fruits"

"Fungi Gone Crazy"

"Natural Products Chemistry "Exploring Nature's Medicine Chest"

"Exploring the Chemistry of Native Louisiana Plants"

Dr. Weizhong Dai, Professor, Louisiana Tech University

"Simulation of Hydrogen Absorption/Desorption in Metal-H<sub>2</sub> Reactors for Hydrogen Storage"

"Simulation of Particle Motion Using the Generalized Finite-Difference Time-Domain Method"

Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University

"Chemicals, the Environment, and You"\*+

"Climate Change"\*+

"So...you want to be a Scientist?"\*+

Dr. James Dent, Assistant Professor, University of Louisiana at Lafayette

"The Once and Future Universe - Our Current Understanding of Cosmology"\*+

"The Darkness that Binds Us - the Quest to Understand Dark Matter"\*+

Dr. Pedro Derosa, Associate Professor, Louisiana Tech/Grambling State

"Using Computers to Clean Nuclear Wastes: Designing Molecules for Nuclear Waste"\*+



Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College

"Our Spectacular National Park Areas and their Geology"\*+

"A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+

- Dr. Galina Z. Goloverda, Assistant Professor, Xavier University of Louisiana  
 "Nanomaterials: Fun and Use"+
- Dr. Steven G. Hall, Assistant Professor, Louisiana State University Agricultural Center  
 "Faith and Reason: Historical and Current Relations between Science and Religion"\*+
- Dr. William Hollerman, Professor, University of Louisiana at Lafayette  
 "Basic physics of music" +\*   
 "Low and slow cooking: Understanding the physics of barbecue" +\*   
 "What is the role of physics in society?"\*+  
 "Just exactly what does it mean to be physics major?"  
 "A scientist's view of developing patents and intellectual property"  
 "Rockets and starships: An overview of astronomy and astrophysics in the early 21<sup>st</sup> century"\*+  
 "Understanding wintergreen candy: A lifetime of making things glow in the dark"\*+
- Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette  
 "The Chicxulub Impact: The Collision That Killed the Dinosaurs"\*+
- Dr. Vladimir Kolesnichenko, Assistant Professor, Xavier University  
 "Nanotechnology: its origins and benefits for our life"
- Dr. Candace Lawrence, Assistant Professor, Xavier University of Louisiana  
 "Polymers and DNA: Discovering the World of Biomaterials" \*+
- Dr. Yuri Lvov, Professor, Louisiana Tech University  
 "Nanotechnology based on natural objects: biomimetic for cyborg microorganisms and smart bone implants"
- Dr. Leszek Malkinski, Associate Professor, University of New Orleans  
 "Micro-origami techniques for the fabrication complex magnetic structures"  
 "Wireless stimulation of mammalian cells- a new application of multiferroic nanoparticles"
- Dr. Daniel McCarthy, Associate Professor and Chemistry and Physics Department Head, Southeastern Louisiana University  
 "Fusion Energy: Creating a Star on Earth"\*+
- Dr. Juana Moreno, Associate Professor, Louisiana State University  
 "Opportunities in Computational Materials Science"\*+
- Dr. Noshir Pesika, Assistant Professor, Tulane University  
 "Sticky materials inspired by gecko lizards"\*+
- Dr. B. Ramu Ramachandran, Professor, Louisiana Tech University  
 "Electrochemistry - The Chemistry of Electricity"\*+  
 "Using Computations to Understand Chemical Reactions"\*+
- Dr. Steven Rick, Assistant Professor, University of New Orleans  
 "Water in Protein Interiors"  
 "The Exotic Behavior of Ordinary Ice"
- Dr. Leonard Spinu, Assistant Professor, University of New Orleans  
 "What's the Big Deal about Nano? A Short Introduction to Nanotechnology"
- Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University  
 "Role of Chemistry in Drug Discovery"  
 "Role of Different Branches of Science in Drug Discovery"
- Dr. Wanjun Wang, Associate Professor, Louisiana State University and A&M College  
 "Small Things Make Big Contributions to Medicine"


**"The mind is not a vessel to be filled, but a fire to be kindled"**  
**Plutarch**

# K-12 Parents & Educators

The following topics are appropriate for K-12 parents (\*) and educators (+):

Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University

"Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" 

"STEAM: Techniques for using Sonic Arts to Integrate the Arts into STEM and STEM into the Arts" 

Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College

"Promoting Academic Excellence by Design"


Dr. Thomas Bishop, Associate Professor, Louisiana Tech University


"The ABC's of DNA"

"Supercomputing: Anytime, Anyplace"

Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans

"Enzymes and Proteins - What do they do?"+\* 

"Clean Energy From a Can of Soda!"+\* 

"Using Computers to Cure Diseases"+\* 


Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University

"Chemicals, the Environment, and You"\*+

"Climate Change"

"So...you want to be a Scientist?"

Dr. James Dent, Assistant Professor of Physics, University of Louisiana at Lafayette

"Gravitational Waves: Echoes from the primordial universe" 

"The Once and Future Universe - Our Current Understanding of Cosmology"\*+


"The Darkness that Binds Us - the Quest to Understand Dark Matter"\*+

Dr. Moustapha Diack, Associate Professor, Southern University and A&M College

"Integrating Instructional Multimedia Repository for teaching 21<sup>st</sup> Century skills"+

"Best Practices for online Course Design and Delivery"+

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"Adventures in Computer Science: Above and Beyond Game Programming and App Development" 

"From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"

"From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"

"Have you Done your Computing Today? The Triumph of Computing as a Skill" 

"Student Interdisciplinary Computing Research: Motivation and Opportunities"

"Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"

"The Advent of Facebook: A Boon or a Threat?"

"The Pursuit of Scientific Research: The need and implications"

"What more can your data do for you? Discovering Gold from your data using Data Mining"

Dr. Brooks B. Ellwood, Professor, Louisiana State University and A&M College

"Our Spectacular National Park Areas and their Geology"\*+

"A Global Perspective on Modern Developments in Stratigraphy: Redefining Geologic time"\*+

- Dr. C. Edward Ferguson, Assistant Professor, McNeese State University  
 "Assisted Reproductive Technologies in Farm Animals and Humans"  
 "Biotechnology in Animal Production and Human Medicine"  
 "Stress in Farm Animals"
- Dr. Steven Hall, Assistant Professor, Louisiana State University and A&M College  
 "Faith and Reason: Historical and Current Relations between Science and Religion"
- Dr. Gary Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette  
 "Think the Land is Flat Around Lafayette? Let's Look with Lasers!"\*+
- Dr. Yevgeniy Kostrov, Assistant Professor, Xavier University of Louisiana  
 "Recurrence Sequences" 
- Dr. Leszek Malkinski, Associate Professor, University of New Orleans  
 "Micro-origami techniques for the fabrication complex magnetic structures"+  
 "Wireless stimulation of mammalian cells- a new application of multiferroic nanoparticles"+
- Dr. Joanne Cain Marier, Section Chief of Health Law and Medical Ethics, LSU Health Sciences Center at New Orleans  
 "Medical Ethics: Framework and Case Studies"  
 "Allocation of Resources in Critical Care"  
 "End of Life Decision Making: A Summary of Advance Directives"  
 "Informed Consent: Elements and Scope"  
 "Human Research: Advancing Knowledge While Protecting Human Subjects"
- Dr. Arturo J. Mendez, D.D.S., M.Sc., Professor and Head of the Department of Prosthodontics, Louisiana State University, Health Sciences Center  
 "Advances in the field of Dentistry and Prosthodontics"\*+  
 "Prosthodontic solutions to complex cases"\*+
- Dr. Jeremy Mhire, Assistant Professor, Louisiana Tech University  
 "Cyber-Space, Cyber-Technology and Cyber-Citizenship: Old Issues Meet New Technology in the 21<sup>st</sup> Century"\*+  
 "Do I Really Know What I Think I Know? Thinking Critically About Issues in Cyber-Space"\*+
- Dr. Patricia E. Molina, Associate Professor, Louisiana State University Health Sciences Center at New Orleans (New Orleans area only)  
 "Alcohol Use By Teenagers: How Prevalent Is It?"\*+
- Dr. Juana Moreno, Associate Professor, Louisiana State University  
 "Opportunities in Computational Materials Science"\*+
- Dr. Noshir Pesika, Assistant Professor, Tulane University  
 "Sticky materials inspired by gecko lizards"\*+
- Dr. DesLey V. Plaisance, Associate Professor of Mathematics/Director of University Graduate Studies, Nicholls State University  
 "Sweaty Palms and All - A Discussion of Mathematics Anxiety"+
- Dr. Ward Plummer, Professor, Louisiana State University  
 "Materials for the 21<sup>st</sup> Century: A Revolutionary - Not an Evolutionary Approach"\*
- Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette  
 "4.6 billion years: a brief history of Earth" +\*   
 "Exploring the Earth's oceans with a drill ship"+\*   
 "The Geology of Louisiana"+\*   
 "What's up with global warming?"\*+ 
- Dr. Rastko Selmic, Associate Professor of Electrical Engineering, Louisiana Tech University  
 "Flying Sensors"\*+
- Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University  
 "Role of Chemistry in Drug Discovery"  
 "Protein Kinases and Human Diseases"
- Dr. Gary Stringer, University of Louisiana at Monroe, Professor Emeritus of Geology and Curator, Division of Geosciences  
 "The Unique and Amazing Monumental Earthworks at Poverty Point"

Dr. Heath Tims, Assistant Professor, Louisiana Tech University  
"Cyber Discovery - a multidisciplinary approach to training cyber citizens"\*+  
"A Vehicle to Drive the Next Generation"\*+

# College Undergraduates & Faculty

- Dr. Jesse Allison, Assistant Professor of Experimental Music and Digital Media, Louisiana State University  
"Sonic Interventions: Programming for Sound Art, Hybrid Worlds, & Interactive Installations" ✨  
"STEAM: Techniques for using Sonic Arts to Integrate the Arts into STEM and STEM into the Arts" ✨
- Dr. Diola Bagayoko, Professor and Chair of Physics, Southern University and A&M College  
"The Ways and Means for Academic Excellence for All; Passing Standardized Tests"  
"Careers in Science and Engineering and the English and Mathematics it takes"  
"Learning or Teaching Effective Problem-Solving"  
"The Versatility and Wonders of Physics"
- Dr. Scott Beslin, Professor, Nicholls State University  
"Pi For Dessert: A Mathematics Sampler"
- Dr. Thomas Bishop, Associate Professor, Louisiana Tech University  
"The ABC's of DNA"  
"Supercomputing: Anytime, Anyplace"
- Dr. Les Butler, Professor, Louisiana State University  
"3D+X-ray Imaging of Plastics, Fire, & Feathers: Looking at the data with giant computers and an iPad"
- Dr. Dhruva Chakravorty, Assistant Professor, University of New Orleans  
"Enzymes and Proteins - What do they do?"\*+ ✨  
"Clean Energy From a Can of Soda!"\*+ ✨  
"Using Computers to Cure Diseases"\*+ ✨
- Dr. Omar E. Christian, Assistant Professor of Chemistry, McNeese State University  
"Eat Your Colors" Anti-inflammatory and Antioxidant activity from Fruits"  
"Fungi Gone Crazy"  
"Natural Products Chemistry "Exploring Nature's Medicine Chest"  
"Exploring the Chemistry of Native Louisiana Plants"
- Dr. Weizhong Dai, Professor, Louisiana Tech University  
"Simulation of Hydrogen Absorption/Desorption in Metal-H<sub>2</sub> Reactors for Hydrogen Storage"  
"Simulation of Particle Motion Using the Generalized Finite-Difference Time-Domain Method"
- Dr. Ron W. Darbeau, Associate Professor and Chemistry Department Head, McNeese State University  
"Chemicals, the Environment, and You"\*+  
"Climate Change"  
"So...you want to be a Scientist?"
- Dr. James Dent, Assistant Professor of Physics, University of Louisiana at Lafayette  
"Gravitational Waves: Echoes from the primordial universe" ✨  
"The Once and Future Universe - Our Current Understanding of Cosmology"\*+  
"The Darkness that Binds Us - the Quest to Understand Dark Matter"\*+
- Dr. Moustapha Diack, Associate Professor, Southern University and A&M College  
"Integrating Instructional Multimedia Repository for teaching 21<sup>st</sup> Century skills"  
"Best Practices for online Course Design and Delivery"

Dr. Chris Douvris, Assistant Professor of Chemistry, McNeese State University

"Spectacular Chemistry Experiments in the Classroom (polymers, catalysis and more!!)" \* 

Dr. Sumeet Dua, Director, Computer Science, Cyber Engineering, Electrical Engineering, Electrical Engineering Technology and Industrial Engineering, Louisiana Tech University

"ABET and the Role of Students during Accreditation Process"\*+

"Adventures in Computer Science: Above and Beyond Game Programming and App Development" 

"From Facebook to Cyber Warfare: The Triumph of Information and Data Mining"

"Data Mining for Cybersecurity Applications: Opportunities and Challenges"

"Have you Done your Computing Today? The Triumph of Computing as a Skill" 

"What does your Genetic Profile and Facebook Profile has in common: Personalized Data Mining for Knowledge Discovery"

"Information Fusion and Data Mining Paradigms for the Cyber Domain: Computational Frameworks and Algorithmic Challenges"

"From Bio-informatics to Cyber-Informatics: *The Tsunami of Data and the Discovery of Knowledge*"

"What more can your data do for you? Discovering Gold from your data using Data Mining"

"From Biology to Bioinformatics: The story of how Computer Science is changing the face of Biological Discovery"

"Students who listen to hard rock and play soccer excel in Math but perform poorly in Chemistry: Discovering surprising Associative Rules and more using Data Mining"

"From Video-gaming to Designing drugs: Pursuing a career in Computer Science and preparing for the next revolution"

"Student Interdisciplinary Computing Research: Motivation and Opportunities"

"The Advent of Facebook: A Boon or a Threat?"

"The Pursuit of Scientific Research: The need and implications"

Dr. Afef Fekih, Associate Professor, University of Louisiana at Lafayette

"If you think graduate school is expensive think again: Graduate Fellowship Programs"

Dr. C. Edward Ferguson, Assistant Professor, McNeese State University

"Assisted Reproductive Technologies in Farm Animals and Humans"

"Biotechnology in Animal Production and Human Medicine"

"Stress in Farm Animals"

Dr. Malay Ghose-Hajra, Assistant Professor, University of New Orleans

"What Does a Civil Engineer Do?"

"Historic Civil Engineering Structures in Louisiana"

"Reduce, reuse, and Recycle towards a Sustainable Future"

"Restoring Coastal Louisiana - Benefits and Challenges"


Dr. Steven Hall, Assistant Professor, Louisiana State University and A&M College

"Faith and Reason: Historical and Current Relations between Science and Religion"


Dr. Suniti Karunatilake, Planetary Scientist and Assistant Professor, Louisiana State University

"Living science fiction on Mars and beyond"\*+ 

"Discoveries unimagined by 2001: A Space Odyssey"\*+ 

"Discovering Mars"\*+ 

"Counting planetary sand grains with computer vision"\*+ 

"A story of water on Mars from maps of hydrogen and sulfur"\*+ 

Dr. Gary L. Kinsland, Pioneer Production Endowed Professor of Geology, University of Louisiana at Lafayette

"The Chicxulub Impact: The Collision That Killed the Dinosaurs"

"Think the Land is Flat Around Lafayette? Let's Look with Lasers!"

Dr. Vladimir Kolesnichenko, Assistant Professor, Xavier University

"Nanotechnology: its origins and benefits for our life"

Dr. Yevgeniy Kostrov, Assistant Professor, Xavier University of Louisiana

"Recurrence Sequences" 

Dr. Guoqiang Li, Professor, Louisiana State University

"Biomimetic Self-Healing Composite Materials"

Dr. Yuri Lvov, Professor, Louisiana Tech University

"Nanotechnology based on natural objects: biomimetic for cyborg microorganisms and smart bone implants"

Dr. Leszek Malkinski, Associate Professor, University of New Orleans

"Micro-origami techniques for the fabrication complex magnetic structures"

"Wireless stimulation of mammalian cells- a new application of multiferroic nanoparticles"

Dr. Joanne Cain Marier, Section Chief of Health Law and Medical Ethics, LSU Health Sciences Center at New Orleans

"Medical Ethics: Framework and Case Studies"

"Allocation of Resources in Critical Care"

"End of Life Decision Making: A Summary of Advance Directives"

"Informed Consent: Elements and Scope"

"Human Research: Advancing Knowledge While Protecting Human Subjects"

Dr. Jeremy Mhire, Assistant Professor, Louisiana Tech University

"Cyber-Space, Cyber-Technology and Cyber-Citizenship: Old Issues Meet New Technology in the 21<sup>st</sup> Century"

"Do I Really Know What I Think I Know? Thinking Critically About Issues in Cyber-Space"

Dr. Juana Moreno, Associate Professor, Louisiana State University

"Opportunities in Computational Materials Science"\*+

Dr. Noshir Pesika, Assistant Professor, Tulane University

"Sticky materials inspired by gecko lizards"\*+

Dr. DesLey V. Plaisance, Associate Professor of Mathematics/Director of University Graduate Studies, Nicholls State University

"Sweaty Palms and All - A Discussion of Mathematics Anxiety"

Dr. B. Ramu Ramachandran, Professor, Louisiana Tech University

"Electrochemistry - The Chemistry of Electricity"

"Using Computations to Understand Chemical Reactions"

Dr. Carl Richter, Robert C. Pettit Endowed Professor of Geology, University of Louisiana at Lafayette

"4.6 billion years: a brief history of Earth" +\* 

"Exploring the Earth's oceans with a drill ship"+\* 

"The Geology of Louisiana"+\* 

"What's up with global warming?"+\* 

Dr. Rastko Selmic, Associate Professor, Louisiana Tech University

"Flying Sensors"\*+

Dr. Jayalakshmi Sridhar, Assistant Professor, Xavier University

"Protein Kinases and Human Diseases"

"Role of Chemistry in Drug Discovery"

Dr. Matthew Tarr, Associate Professor, University of New Orleans

"How Sunlight Effects Oil Spills"

Dr. Heath Tims, Assistant Professor, Louisiana Tech University

"Cyber Discovery - a multidisciplinary approach to training cyber citizens"

"A Vehicle to Drive the Next Generation"\*+

Dr. Alika Yu, Assistant Professor, Louisiana State University School of Dentistry

"Is a career in dentistry for me?"

This public document was published with support from the National Science Foundation and the Louisiana Board of Regents, P.O. Box 3677, Baton Rouge, LA 70821, under authority of special exception by the Division of Administration. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31.

**"Science is simply common sense at its best."**

**- Thomas Hardy**

# Speaking of Science

## Presentation Request Form

**Requesting Organization/Group:** \_\_\_\_\_

**Contact:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Physical Address:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Type of Meeting:** \_\_\_\_\_ **Anticipated Audience (#):** \_\_\_\_\_

**Target Audience:**

\_\_\_\_\_ **K-12 Students: Grade(s)** \_\_\_\_\_ **Discipline:** \_\_\_\_\_

\_\_\_\_\_ **Teachers/Faculty: Grade/subject taught** \_\_\_\_\_

\_\_\_\_\_ **General Public**

\_\_\_\_\_ **Other: Explain:** \_\_\_\_\_

**Dates/Times Speaker Requested (please provide several available dates):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Speaker Choice or Topic Requested (please use a separate request form for additional requests):**

**First Choice:** \_\_\_\_\_

**Second Choice:** \_\_\_\_\_

**Location of Presentation (if different from address above):**

\_\_\_\_\_  
\_\_\_\_\_

Please return this form to : Attn: SoS Program, (225)342-3371 (fax) or P.O. Box 3677, Baton Rouge, LA 7021-3677 (mail) or email it to [susan.jernigan@la.gov](mailto:susan.jernigan@la.gov). For questions about SoS, please call (225) 342-4253.