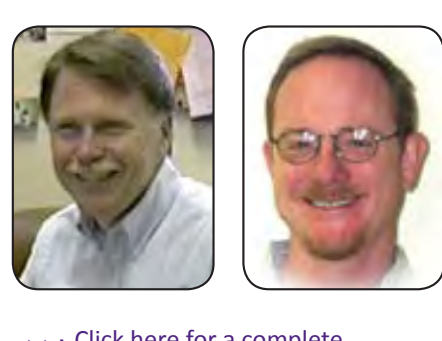


**NEWS/EVENTS**

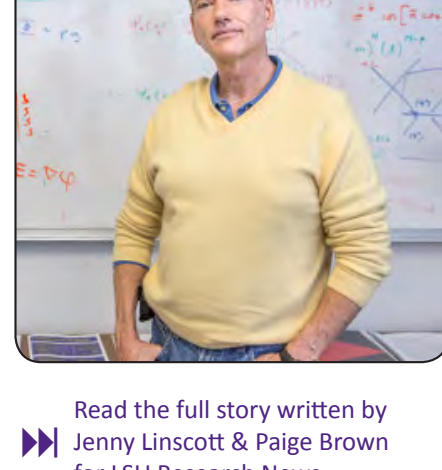


**Two LSU Professors Named AAAS Fellows**

Professors John Fleeger and Robert Lipton have been named Fellows of the American Association for the Advancement of Science (AAAS). Election as a Fellow is an honor bestowed upon AAAS members by their peers. This year, 388 members nationwide have been awarded this honor by AAAS because of their scientifically or socially distinguished efforts to advance science or its applications.

▶▶ More

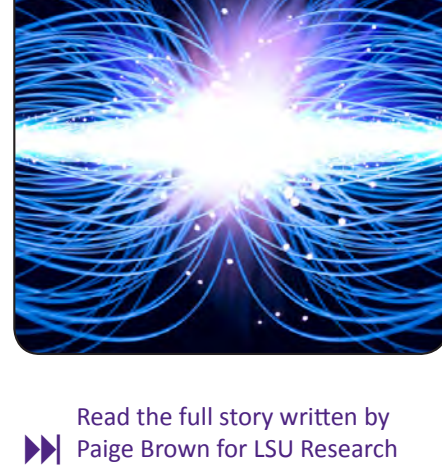
▶▶ [Click here for a complete list of AAAS Fellows](#)



**Quantum Technology at LSU**

LSU is well-known for leading the field in a number of different areas, from environmental science, to engineering, to ecology, to material science, to football. But LSU is a hot-bed for another field that remains mysterious to most of us in our daily lives: quantum technology.

The term "quantum technology" was coined by LSU physics professor Jonathan Dowling, author of a new book – "Schrödinger's Killer App" – that documents the ongoing race to build the world's first quantum computer. Dowling is co-chair of the Hearne Institute of Theoretical Physics at LSU, where his work lays the foundation for quantum computers that could one day vastly outperform our current classical hardware. The man who has the term "qbit" imprinted on the license plate of his car is also helping to coordinate the work of a growing team of quantum technology researchers at LSU.



**LSU Physicist Shows Possibility of Cloning Quantum Information from the Past**

LSU's Mark Wilde has shown that it would be theoretically possible for time travelers to copy quantum data from the past.

It all started when David Deutsch, a pioneer of quantum computing and a physicist at Oxford, came up with a simplified model of time travel to deal with the paradoxes that would occur if one could travel back in time. For example, would it be possible to travel back in time to kill one's grandfather? In the Grandfather paradox, a time traveler faces the problem that if he kills his grandfather back in time, then he himself is never born, and consequently is unable to travel through time to kill his grandfather, and so on. Some theorists have used this paradox to argue that it is actually impossible to change the past.

"The question is, how would you have existed in the first place to go back in time and kill your grandfather?" said Wilde, an LSU assistant professor with a joint appointment in the Department of Physics & Astronomy and with the Center for Computation and Technology.

▶▶ [Read the full story written by Paige Brown for LSU Research News](#)

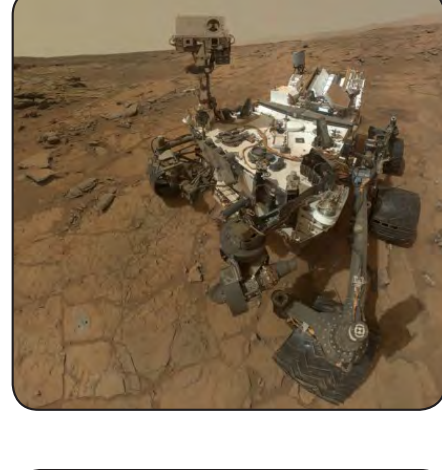


**Ferreira Receives BASF Professor of Excellence Award**

LSU's Cox Communications Academic Center for Student-Athletes selected Guillermo Ferreira, interim dean of the LSU College of Science, for the BASF Professor of Excellence Award. Ferreira was presented with the award during halftime of the LSU-Texas A&M football game.

"Dean Guillermo Ferreira represents the epitome of discovery, learning, engagement, and diversity which are the four pillars of the LSU Flagship 2020 Agenda: Transforming Lives," said Kenneth O. Miles, assistant vice chancellor and executive director of the Cox Communications Center.

▶▶ More



**Karuntillake, Colleagues Develop New Algorithm to Help Curiosity Rover Analyze Mars Soil**

Suniti Karuntillake, LSU assistant professor of geology and geophysics, and colleagues from Rider University, Stony Brook University and the US Geological Survey have developed an image analysis and segmentation algorithm to help NASA scientists analyze soil images taken by Mars rover Curiosity. The rover can easily identify the chemical composition of rocks, measure the speed of the wind, and snap images from mounted cameras, but analyzing thousands of soil images could be a bit difficult. The new algorithm should make this task a bit easier.

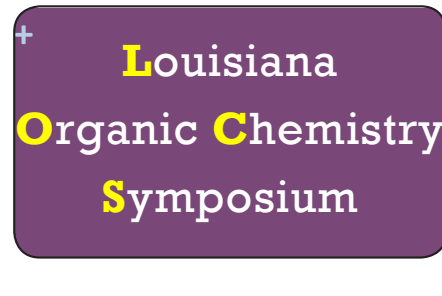
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**LSU Researcher Collaborates with Chevron to Explore Harvesting Heat from Hot Dry Rocks**

Blaise Bourdin, associate professor of mathematics and adjunct faculty in the LSU Center for Computation and Technology (CCT), and Chevron representatives are working together to explore ways to harvest energy from hot dry rocks beneath the Earth's surface in artificially created reservoirs. The idea is to generate a network of cracks in the rocks, then inject cold water and let it circulate through the cracked formation. The resulting steam can then be used to produce electricity.

▶▶ [Read the full article on the CCT web site](#)



**Chemistry Department Hosts LOCS**

The LSU Department of Chemistry held the Louisiana Organic Symposium November 22. The event included student poster presentations, a keynote talk by Debra Dolliver, associate professor of organic chemistry at Southeastern Louisiana University, and a Chemistry Colloquium led by Richmond Sarpong, associate professor of chemistry at the University of California Berkeley. The symposium was sponsored by the American Chemical Society (ACS), LSU Student Affiliates of ACS, the LSU Chemistry Graduate Student Council, LSU National Organization of Black Chemists and Chemical Engineers (NOBCChE), and the Halliburton Foundation.



**LSU Launches Research Experts Database**

LSU's Office of Research and Economic Development has launched a new database that houses a comprehensive list of LSU faculty and their research. The intention of the database is to serve as a clearinghouse for LSU researchers and research activities providing opportunities for collaboration, a resource for student researchers, and an easily searchable list for anyone seeking experts in a particular field.

▶▶ [Link to Research Experts Database](#)



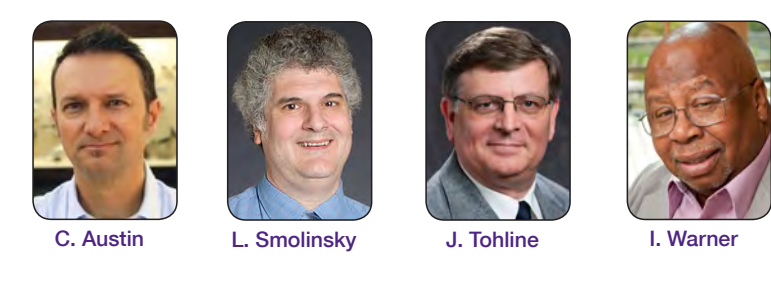
**CCELL Announces 2013 Happy Award Recipients**

LSU's Center for Community Engagement, Learning, and Leadership (CCELL) recognized 12 LSU faculty, students, and community partners with the third annual set of CCELL Happy Awards for excellence in service-learning. Among this year's awardees are chemistry PhD students Ciera Duronset and Marshall Moulis; math instructors Debra Koposco and Stephanie Kurtz; biology major and Honors College student Chaiss Matthews; and Andrew Clinton Pereboom Alumni Professor of Geology & Geophysics Jeff Nunn.

▶▶ [Click here for a complete list of winners](#)

*Alumni Professor of Chemistry George Stanley and CCELL Happy Award winner Ciera Duronset*

**KUDOS**



**Christopher Austin**, curator of Herpetology and associate professor of biological sciences, was awarded the LSU Alumni Association Faculty Award. This award is given each year to outstanding faculty for their accomplishments, superb teaching, research, and service at LSU.

This fall, **Larry Smolinsky**, Roy Paul Daniels Professor of Mathematics, hosted approximately 20 students from the Math Club of Kenilworth Science & Technology Middle School as part of the Math Department's Math Circle. Smolinsky could be found working with the budding mathematicians most Monday afternoons in the Math Department lounge where they studied math puzzles and the mathematical backgrounds of board games. Math Circle is a collaboration with Suzan Gaston and Eugene Kennedy in the School of Education and is funded by the 21st Century Community Learning Centers Program of the Louisiana Department of Education.

**Joel Tohline**, Alumni Professor of Physics and Astronomy and director of the Center for Computation and Technology (CCT), was the recipient of a 2013 Torchbearer Award. This award recognizes a student, staff, or faculty member who has greatly assisted LSU's Information Technology Services to successfully deploy a new service or resource. ▶▶ [Click here for a complete list of winners](#)

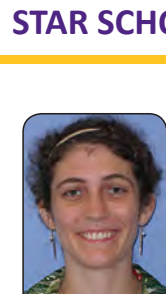
**Isiah Warner**, LSU System Boyd Professor and Vice Chancellor of Strategic Initiatives, was awarded the 2013 Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences. Warner was recognized for his work to significantly stimulate or foster activities that promote inclusiveness within the region.

**MARQUEE PUBLICATIONS**

LSU physicists have developed the first catalog of ground-based observations of terrestrial gamma flashes. The catalog has been accepted for publication in *Journal of Geophysical Research*. The research group, which includes **Mike Cherry**, **Gary Case**, **Greg Guzik**, **John Wefel**, **Doug Granger**, **Michael Stewart**, and **Becky Ringette**, report the observation of 24 millisecond-scale bursts of gamma rays up to 2 MeV associated with nearby (< 5 miles) lightning.

▶▶ More

**STAR SCHOLAR**



**Physics Student Tackles 50-Year Old Puzzle**

*Research Findings Published in Physics Letters B*

**Alison Dreyfuss**, a first year PhD student in physics, has managed to tackle a puzzle that has been somewhat of a mystery for 50 years. Dreyfuss' work has provided novel insight into understanding the microscopic structure of Carbon-12, including a state predicted by British astronomer Fred Hoyle in 1954. Her findings have been published in the December edition of Physics Letter B, a journal devoted to nuclear and particle physics. Her work will significantly impact investigations in nuclear physics and astrophysics and will advance the overarching program of LSU's nuclear physics group.

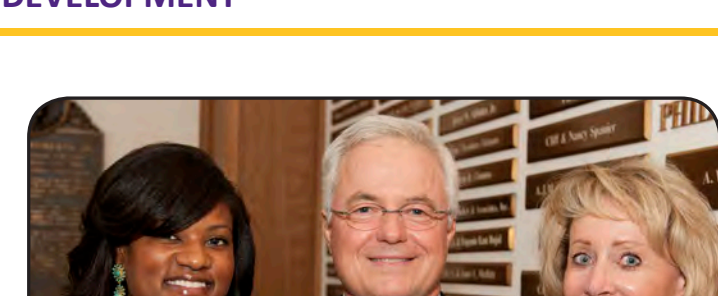
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**ALUMNI**



**Uroyoan Walker**, a 2001 PhD graduate in the LSU Department of Mathematics was recently elected president of the University of Puerto Rico System, which consists of 11 campuses and has over 60,000 students. Walker received his PhD under Professor Jorge Morales.

**DEVELOPMENT**



**Alum to Address Fall 2013 Graduates**

Dr. Melvin Triay will be the guest speaker for the LSU College of Science fall diploma ceremony, December 20. The 1976 graduate of LSU's biological sciences program, is a board certified anesthesiologist with more than 29 years experience. Dr. Triay earned an MD from the LSU School of Medicine in New Orleans in 1980. He later completed his residency in anesthesiology at the University of Florida, Gainesville.

Dr. Triay established a successful anesthesiology practice in Metairie. He is also a clinical advisor and member of the Board of Directors for Parish Management Consultants LLC (PMC).

Dr. Triay and his wife, Diane, are members of the College of Science Dean's Circle. Dr. Triay currently serves on the college's executive committee and is an active participant in college outreach activities.

*L to R: Development Director Erni Gilbert with Dr. Mel Triay and his wife, Diane*



We are thankful to all of our faculty, staff, friends and alumni who have invested their time and financial resources into the LSU College of Science. This year alone, our faculty and student researchers have contributed to discoveries that will significantly impact the way we detect and treat cancer, explore the possibilities of life on Mars, and preserve and protect deltaic coastlines.

The pursuit of academic achievement in the sciences is an LSU tradition and you are a vital part of this tradition. During this season of giving, we invite you to become a member of the **College of Science Dean's Circle**. An annual contribution of \$1,000 or more in unrestricted funds to the College of Science Development Fund establishes your membership in this group.

Our DC members support student scholarships, student organizations, educational travel, faculty recruitment, in addition to alumni and community building activities.

Funds provided by our DC members allows LSU and the College of Science to pursue greater prominence and academic distinction among universities throughout the nation. Members enjoy invitations to events hosted by the college, including the annual Dean's Circle dinner and Hall of Distinction Ceremony, special communications from the dean throughout the year, and opportunities to meet and network with college leadership and other members.

**To join by mail**, make your check payable to "LSU Foundation-Science Dean's Circle" and mail your check to: LSU Foundation, 3838 West Lakeshore Drive, Baton Rouge, LA 70808

**To donate online** go to [www.lsufoundation.org/give-to-science](http://www.lsufoundation.org/give-to-science).

For more information on the Dean's Circle, please contact Adrian Owen, [aowen@lsu.edu](mailto:aowen@lsu.edu), 225.578.5100.

**NEW DEAN'S CIRCLE MEMBERS**

The College of Science would like to welcome the newest members of the Dean's Circle. Thank you for your contribution to the exciting teaching and research activities in the College of Science.

- Robert & Ellise Turner
- Edward & Jo Zganjar
- Charles & Arleen Goldberg
- Rodney & Pamela Ott

▶▶ [Click here for a complete list of DC members](#)

