



Sept. 12 -18, 2010

CCT Professors Receive \$1 Million in Federal Funding To Advance Research

LSU Professors Stephen David Beck and Thomas Sterling received \$1 million as part of the appropriations in the United States Senate Omnibus Appropriations Bill for their “Center for Digital Innovation” proposal, which furthers research in next-generation digital media and supercomputer architecture.

Sen. Mary Landrieu (D-La.), who is a member of the Senate Appropriations Committee, was instrumental in securing this and other funding for Louisiana.

“The LSU Center for Digital Innovation is at the forefront of the growth in technology jobs in Louisiana,” said Sen. Landrieu. “The funds for this project will help to build LSU’s role in the development and production of digital media and keep the state on the cutting edge of research in computer science.”

Beck, Derryl & Helen Haymon Professor in the LSU School of Music, and Sterling, Arnaud & Edwards Professor in the LSU Department of Computer Science, both hold joint appointments with the CCT. They jointly developed the Center for Digital Innovation proposal to expand research initiatives both are leading to advance components of 21st century computational science technology.

Beck, CCT interim director, is the University’s lead on the Arts, Visualization, Advanced Technologies and Research, or AVATAR, Initiative. LSU approved the AVATAR Initiative in Spring 2008 to create a concentrated academic research program in digital media, including animation, video games, electronic music and digital art.

Faculty with the AVATAR Initiative spent the past two years developing a program that will allow students to obtain a minor in digital media through the LSU Colleges of Art & Design and Engineering, in which they will take courses in several departments, including computer science, electrical and computer engineering, music, art, English, and mass communication, to prepare them for careers in digital media. The University approved this academic program in Fall 2009, and students can formally declare the minor beginning this semester.

Sterling, a former NASA and Caltech scientist who invented the Beowulf cluster that is the building block of the world’s supercomputing systems, leads the Systems Science and Engineering Focus Area within CCT. He and his research team have spent the past

several years working on the ParalleX project to investigate how parallel computing environments can run effectively on large-scale machines.

He is part of the National Science Foundation's Exascale Point Design Study program, the NSF HPC Task Force, the DARPA Exascale Technology and Software Studies, and the International Exascale Software Project. He also is leading LSU's collaboration with Sandia National Laboratories on the recently announced DARPA Ubiquitous High Performance Computing Program to prototype next-generation supercomputers.

Sterling's research group is conducting research to determine the execution models, application programming interfaces, system software and hardware the scientific research community will need when supercomputers move from Petascale to Exascale and become capable of running a million trillion calculations per second.

"With the additional funding our proposal has received through federal appropriations, we're able to advance the research initiatives already taking place on campus and catalyze efforts within the digital media group and the supercomputer architecture group to expand work in both areas and create new opportunities," Beck said.

For more information on the AVATAR Initiative, please visit <http://avatar.lsu.edu>.

For more information on the ParalleX project, please visit <http://px.cct.lsu.edu>, and for more information on the Exascale research taking place with Professor Sterling's group, please visit <http://exascale.cct.lsu.edu>.

CCT in the News:

Princess Ball tickets now on sale

Source: [The Advocate](#)

LSU professors get \$1 million for digital media, supercomputer research

Source: [Business Report](#)

LSU Profs Receive \$1 Million for Digital Media and Supercomputer Research

Source: [HPC wire](#)

Source: [LSU Office of Communications & University Relations](#)

LSU Receives \$1 million for Digital Media & Exascale HPC

Source: [Viz World](#)

Pats on the Back:

- The CCT directors' office announces a change in leadership for the Coast-to-Cosmos focus area. Chris White has decided to step down from this to focus more on his research, and Jorge Pullin has agreed to serve as the new focus area lead. Congratulations to both for their hard work on this important transition.

Lectures this week:

THURSDAY—There will be a lecture by Sumeet Dua, Louisiana Tech University, Upchurch Associate Professor Of Computer Science, on “Robust Data Mining And Fusion CyberTools For Knowledge Discovery” (sponsored by LONI/LASiGMA) on Thursday, Sept. 16 at 3:30 pm in Johnston Hall 338.

FRIDAY—There will be a lecture by Sanjit K. Mitra, University Of South California, Los Angeles, on “Recent Research Results In Image And Video Processing,” sponsored by the LSU Department of Computer Science on Friday, Sept. 17 at 2 p.m. in Coates Hall 256.

Please Note:

- Prior approval is required for Special Meal Requests. Employees who make meal purchases without prior approvals may find that they must cover the cost of any monies spent for an unapproved event out of pocket, especially now that state funds are under a spending freeze. Please contact Susie Poskonka (susie@cct.lsu.edu) prior to any special meal with visitor(s) to file the appropriate request for approval. Prior approval could take up to one week, so please plan accordingly.
- The next HPC training is this Wednesday, Sept. 15, from 1-3 p.m. in 338 Johnston Hall and on the Access Grid. To see the description of this tutorial or to register for it please visit: <http://www.hpc.lsu.edu/training/tutorials>
- Wednesday, Sept. 15 is the deadline to judge films as part of the public jury for Red Stick International Animation Festival. The festival hosts will use jury feedback to select films for “Best of the Fest” 2010. To participate, log on at <http://redstick.cct.lsu.edu/judging/login> for a chance to view and rate the films submitted to this year’s festival.
- LSU Fall Fest will take place this Friday, Sept. 17 at 11 a.m. in the LSU Quadrangle and Exxon Mobil Quadrangle. Fall Fest is free and open to all students, faculty and staff. This annual welcome-back celebration will feature free food and drinks, a performance by the Golden Band from Tigerland and a welcome from Chancellor Michael Martin. Various LSU departments will host booths and exhibits to provide students with information about activities and academic programs on campus. CCT’s AVATAR Initiative will attend to tell students about the new minor in digital media and how they can enroll.
- LSU Professor Laura Lindsay's sesquicentennial commemorative book, "Treasures of LSU," goes on sale Sept. 27. LSU faculty, staff and students will receive a 25 percent discount when purchasing this book, which captures outstanding moments and artifacts from LSU's 150-year history, through the end of 2010. "Treasures of LSU" is available in bookstores, through LSU Press, or online at <http://www.lsu.edu/lsupress/bookPages/9780807136775.html>.

- LSU now has an iPhone app that provides news, video, campus maps, athletics updates, and more. This app is a free download from the App Store or at <http://lsumobileapps.lsu.edu>. The technology coordinators who created this app are adding features, and the app should be available to Blackberry mobile users soon. Please send suggestions for content you would like to see through the LSU app to lsumobile@lsu.edu.
- There will be a COMSOL Multiphysics Workshop, "Learning by Doing," on Wednesday, Sept 22 from 9 a.m. until noon in 307 Frey Computing Services Building. This workshop teaches skills needed to simulate problems in COMSOL Multiphysics, whether users are new to COMSOL or experienced. Seating is limited, so registration in advance is advised at <http://www.comsol.com/events/cmw/12141/>. To participate in the hands-on session, attendees will need to bring their own laptops. If you have any questions, contact Srikanth Vaidianathan at srikanth@comsol.com or 781-273-3322. For more information on COMSOL, visit www.comsol.com. This workshop is hosted by the LSU Center for Computation & Technology.
- The Red Stick International Animation Festival has partnered with the Baton Rouge Symphony Orchestra (BRSO) to host a performance of the popular, interactive touring concert Video Games Live on Saturday, Nov. 13, at 7 p.m. in the Baton Rouge River Center Arena. This will be the closing event of the sixth annual festival, which will take place Nov. 10-13, 2010. Video Games Live are on sale through the River Center's [Ticketmaster page](#). There will be a pre-show meet-and-greet event at 5:30 p.m. prior to the performance for all ticket holders. Ticket prices range from \$23 to \$73 per person, depending on seating.
- The Red Stick International Animation Festival has tickets for Princess Ball, an annual highlight of the festival, on sale now! The Princess Ball will take place Sunday, Nov. 7 (the Sunday preceding the festival) from 3-5 p.m. at the Old State Capitol in downtown Baton Rouge. Princess Ball tickets are \$20 per person, and are available for online purchase at <https://www.ticketturtle.com/index.php?ticketing=rsiaf>. Tickets are non-refundable, and will be available for sale until the event reaches capacity at the Old State Capitol.
- The 2011 application for National Science Foundation East Asia and Pacific Summer Institutes for U.S. Graduate Students is now available: www.nsf.org. This is a flagship international fellowship program for developing the next generation of globally engaged U.S. scientists and engineers knowledgeable about the Asian and Pacific regions. Fellows are supported to participate in eight-week research experiences at host laboratories in Australia, China, Japan (10 weeks), Korea, New Zealand, Singapore and Taiwan from June to August. The program provides a \$5,000 summer stipend, round-trip airfare to the host location, living expenses abroad, and an introduction to the society, culture, language, and research environment of the host location. The deadline for the application is November 10, 2010. The program is intended for U.S. graduate students pursuing studies in fields supported by the

National Science Foundation. Women, minorities, and people with disabilities are strongly encouraged to apply. Applicants must be enrolled in a research-oriented master's or Ph.D. program and be U.S. citizens or U.S. permanent residents by the application deadline date. Should you have any questions, please contact the EAPSI Help Desk by email at eapsi@nsfsi.org or by phone at 1-866-501-2922.

- LSU Day, a celebration of the University's sesquicentennial anniversary that highlights the various research and education accomplishments of different areas of campus, will take place on Saturday, Nov. 13 from 9 a.m. until 1 p.m., concurrent with LSU Homecoming. At LSU Day, CCT will host a "Visualize This!" exhibit showcasing student research projects and visualization work in the LSU Union computer laboratory. Additionally, the Red Stick International Animation Festival will provide a Best of the Fest reel to screen for audiences in the Union Theatre, and Professor Rudy Hirschheim will perform with Capital Gains, a band comprised of faculty from the E.J. Ourso College of Business. If you would like to participate or have your students participate in the "Visualize This!" exhibit, please contact CCT PR Manager Kristen Sunde at ksunde@cct.lsu.edu.
- **Supercomputing Conference 2010 Information and Deadlines:**
 - Follow SC10 with social media to get the latest news, information, and deadlines -- Twitter @ SuperComputing; Facebook group: SC10.
 - A team of LSU students is training to compete in the SC10 Student Cluster Competition. Isaac Traxler, HPC@LSU, is coaching students Jason Kincl, Austin Howick, Kenny Barrons, Tung Le, McKendon LeFleur and Alex Chretien. The team is meeting to practice each Tuesday for the competition, which will take place during the SC10 Conference in New Orleans this November. The students are practicing using high-performance computing clusters and open-source software to solve complex problems. At the competition, which will begin Monday, Nov. 15 during the SC10 Exhibition Opening Gala and will last until the exhibit floor closes on Wednesday evening, Nov. 17, the students will compete in real time as a panel of HPC experts judges them on workload completed, benchmark performance, interviews and outreach. The winning student team will be announced and honored during the SC10 Awards Ceremony on Thursday, Nov. 18. Good luck to the LSU team!
 - **CALL FOR SUBMISSIONS: SC10 Wants to Show Your Work to the World!** Over the years, SC has provided members of the HPC community a chance to showcase their work in the video loops that run before each of the keynote and plenary sessions. This event will return at SC10 in New Orleans, and the conference is taking submissions now. Images can relate to any area of HPC, and will be an opportunity to show the quality and range of work that is ongoing within the community. **Deadline for submissions is Friday, October 15, 2010.** For more information on sharing your work at

SC10: <http://sc10.supercomputing.org/?pg=vidcontribute.html>. For questions or to request a participation form, get in touch at: video@info.supercomputing.org.

- SC conference attendees are welcome to attend Broader Engagement and Education Program sessions and presentations, including attendees who only have exhibit badges. SC10 also is introducing new registration categories for conference attendees who would wish to participate in associated meals, catered events, or receive program logo merchandise. For more information or to sign up for these programs, please visit:

Registration: <http://sc10.supercomputing.org/?pg=registration.html>

Broader Engagement: <http://sc10.supercomputing.org/?pg=broadeng.html>

Education: <http://sc10.supercomputing.org/?pg=edprog.html>

- Please remember to send your news concerning grants, awards, conferences, or other pertinent information to PR Manager Kristen Sunde at ksunde@cct.lsu.edu.
- Follow CCT with social media to access photos and see news, events or updated information. These pages are public; you do not need an account to view the information.
 - [Facebook group](#) : LSU Center for Computation & Technology
 - [Twitter](#) : LSUCCT
 - [YouTube channel](#) : LSUCCT

Upcoming Grant Deadlines:

Note: Please check the [CCT deadline Web site](#), since it is updated daily.

CISE Cross-Cutting Programs: FY 2011

December 17 2010 10:00 am

At Most \$ 3,000,000.00 available