



**March 7-13, 2010**

### **Submissions Now Being Accepted For the SC10 Technical Program**

SC10, the premier international conference on high-performance computing, networking, storage and analysis, is now accepting submissions for its technical program.

The 23<sup>rd</sup> annual conference in the series, SC10 will take place in New Orleans, Louisiana from Nov. 13–19. More than 11,000 attendees from industry, academia and government are anticipated.

“The SC Conference Technical program has become internationally renowned as the preeminent forum for discovering, debating and demonstrating innovative advances in high-performance computing, networking, storage and analysis,” said Barry Hess, General Chair of SC10 and Deputy CIO at Sandia National Labs.

Drawing on expertise from the international HPC community, SC10 will build on over two decades of success offering a broad spectrum of technical presentations and discussions including rigorously peer-reviewed papers, panels, tutorials, workshops and posters showcasing the latest findings from laboratories and research institutions around the world.

This year, the technical program encourages participants to focus on one of three thrust areas to be featured prominently at the conference: climate simulation, heterogeneous computing and data-intensive computing.

Climate simulation spotlights the tremendous importance of research in global climate change, including HPC-based climate simulation techniques which help scientists understand global warming, climate change and other environmental processes.

SC10’s other thrusts highlight important emerging HPC technologies.

Heterogeneous computing covers the technological and research advances in software that are required for accelerator-based computing, which is now occurring on large-scale machines and could propel supercomputing to the exascale level, where machines are capable of running a million trillion calculations per second.

As scientists depend more and more on supercomputing in their research, they are generating massive amounts of data that must be shared, stored and analyzed by teams of

remotely located collaborators.

This global trend underlines the importance of data-intensive computing, SC10' third main thrust, highlighting research into innovative solutions for managing data across distributed high-performance computing systems, especially hardware and software requirements for effective data transfer.

“Each year we build on the strength of the SC conference programs before and our horizons continue to expand,” said Ricky Kendall, SC10 Technical Program Chair and Group Leader, Scientific Computing at Oak Ridge National Laboratory. “This year we’ll focus on the growing field of climate simulation, which seems especially appropriate for our venue in New Orleans. And as more scientific disciplines -like climate research -rely on HPC Technologies to enable their research and collaborations, emerging innovations in heterogeneous computing and data intensive computing will be critical components to achieving new scientific breakthroughs.”

### **DEADLINES:**

For most areas of the SC10 technical program will be accepted beginning March 1.

Technical paper abstracts are due April 2 and final papers as well as submissions for Tutorials and the ACM Gordon Bell Prize are due April 5.

Other immediate submissions deadlines include: Workshops, which are due April 15, 2010; the Student Cluster Competition, which is due by April 16, 2010; as well as Panel submissions, which are due April 26, 2010.

All submissions can be made online via: <https://submissions.supercomputing.org/>

For the entire list of technical program deadlines, visit:  
<http://sc10.supercomputing.org/?pg=dates.html>

For any questions about the Technical program, e-mail:  
[program@info.supercomputing.org](mailto:program@info.supercomputing.org)

### **Pats on the Back:**

- Jorge Pullin has been appointed to the Advisory Panel of the journal Classical and Quantum Gravity of the Institute of Physics (UK). The advisory panel is composed of 20 high-caliber researchers from around the world, and will provide advice to the journal on fast-track communications and other high-priority research papers so the journal can apply the highest possible quality standards.
- Stacey Simmons, CCT associate director for economic development, has been nominated as Innovator of the Year, part of the Governor's Technology Awards 2010,

co-sponsored by Louisiana Technology Council in partnership with the Baton Rouge Business Report. The winners will be announced on Tuesday, March 19.

- Juana Moreno received a supplement of \$2,111 to her National Science Foundation award titled "PIRE: Graduate Education and Research in Petascale Many Body Methods for Complex Correlated Systems: A Collaboration with Partners in Germany and Switzerland."
- Thomas Sterling participated in meetings with technical leaders March 4-6 at Sandia National Laboratories to prepare for a proposal writing process for DARPA. LSU will participate with the Sandia-led team to propose the Xcaliber project for the development of a revolutionary class of future computing systems.

### **CCT in the News:**

Our Views: Building Base of Digital Wins

Source: [The Advocate](#)

Louisiana Reaps \$80 Billion in Broadband Stimulus

Source: [Communications Technology](#)

### **Please Note:**

- CCT announces The CCT Distinguished Graduate Dissertation Fellowship program to support outstanding graduate students at the University as they complete their final year towards a terminal degree in their field.

*Eligible students:*

- Must be working with a faculty member associated with CCT
- Minimum GPA of 3.50
- Must have already passed all of the required exams in their department
- Must have finished all required course work and be working on the final dissertation
- Must devote full time to the completion of the dissertation preparation
- Must be enrolled in dissertation credit for nine hours during Fall and Spring semesters
- Cannot have other employment! Students cannot hold another graduate fellowship or award

Students in this program will receive a \$22,000 stipend for the 2010-2011 academic year. The deadline to apply for the fellowship this year is March 25. To apply, interested students should submit a description of the work in progress, a list of their publications, presentations, honors and awards, a copy of their transcript, and a statement outlining the timetable for completing their dissertations within the year. The student also should arrange that three letters of recommendation be sent directly

to the Fellowships Committee. The application packet and letters of recommendation (in pdf format) should be sent to: [jobs@cct.lsu.edu](mailto:jobs@cct.lsu.edu).

- CCT, AVATAR Initiative and the Red Stick International Animation Festival are hosting LSU Get Animated! Summer Camp, June 7-11, at the Shaw Center for the Arts in downtown Baton Rouge. The camp is taking applications through Friday, March 19, so please pass on the word to any Baton Rouge-area high school students with whom you work. Students can visit <http://www.cct.lsu.edu/animate> for more details and to get the necessary materials to register.
- LSU CCT and the Louisiana Biomedical Research Network (LBRN), will host the 3rd Workshop on Computational Biology March 26-27, 2010 at LSU. This workshop will bring together researchers using computational approaches in the biological sciences, HPC providers and cyberinfrastructure developers. For a full schedule, visit: <http://.lbrn.lsu.edu/urls/cw2010>.
- LSU's Department of Physics & Astronomy and CCT will host an afternoon of free, family friendly activities on Saturday, March 27, at the [Highland Road Park Observatory](#), 13800 Highland Road, from 2 p.m. to 6 p.m. as part of [NanoDays](#), a national event of educational programs about nanoscale science and engineering coordinated through the [Nanoscale Informal Science Education Network](#). [NanoDays](#) will feature several hands-on activities for children of all ages, and two prominent nanoscience researchers will speak about their work. At 3 p.m., [Kristen Buchanan, Ph.D., of Colorado State University](#), will talk about "Nanomagnetism" and its application to hard drives. At 4 p.m. [Jayne Garno, Ph.D., of LSU](#), will present "Nano Theater," showing images of nano-objects captured in her lab. For more information, contact Juana Moreno at [Moreno@lsu.edu](mailto:Moreno@lsu.edu), or visit <http://www.cct.lsu.edu/LSUNanoday>.
- The next LONI HPC workshop will be hosted by UNO March 29 - 30 at UNO. For more information, visit <http://www.hpc.lsu.edu/training>. LSU's LONI HPC workshop has been rescheduled for April 26 - 28.
- LSU Day, a celebration of LSU's sesquicentennial anniversary, will take place on Saturday, April 24. The campus will host a large exhibition in the Quad and on the Parade Ground on this day to demonstrate work taking place in the different areas of campus for alumni, current or prospective students, and members of the Baton Rouge community. CCT's exhibit will take place in the visualization resources room in Middleton Library, and will feature the center's research videos and demonstrations of scientific visualization. CCT will also provide a Best of the Fest reel from Red Stick International Animation Festival to show in Dodson Hall, which will be used to screen films from different areas of campus throughout the day. For more information about CCT's exhibit for LSU Day, please contact Kristen Sunde at [ksunde@cct.lsu.edu](mailto:ksunde@cct.lsu.edu).
- This summer, CCT will host its first Research Experience for Undergraduates (REU).

This REU project is a nine-week program where students will work collaboratively on a wide variety of computational science projects. Research groups will be exploring gravitational waves, complex emergent phenomena in materials science, scientific visualization, coastal modeling, computational music, advance parallel computer architecture, and other topics. The participants will be working on cutting edge research in Computational Sciences. This program will involve eight students every summer, and will run from May 31, 2010 through July 30, 2010. Each student will receive a stipend of \$4,500, free housing in university dormitories, and up to \$500 in travel expenses to and from Baton Rouge, Louisiana. Interested students and their faculty mentors should consider applying for these positions. For more information, please visit: <http://reu.cct.lsu.edu>, or contact [ktraxler@cct.lsu.edu](mailto:ktraxler@cct.lsu.edu).

- Please remember to send your news concerning grants, awards, conferences, or other pertinent information to PR Manager Kristen Sunde at [ksunde@cct.lsu.edu](mailto:ksunde@cct.lsu.edu).
- Follow CCT with social media to access photos and see news, events or updated information. Both these pages are public; you do not need a Facebook or Twitter account to view the information.

[Facebook group](#): LSU Center for Computation & Technology  
[Twitter @ LSUCCT](#)

#### **Upcoming Grant Deadlines:**

- [Proactive Recruitment in Introductory Science and Mathematics \(PRISM\)](#)  
March 08 2010 10:15 am  
At Most \$ 600,000.00 available
- [Integrative Graduate Education and Research Traineeship Program \(IGERT\)](#)  
March 29 2010 10:15 am  
At Most \$ 3,000,000.00 available
- [Strategic Technologies for CyberInfrastructure \(STCI\)](#)  
April 21 2010 10:15 am
- [Future Internet Architectures \(FIA\)](#)  
April 22 2010 10:15 am  
At Most \$ 9,000,000.00 available
- [2010 NSF MRI](#)  
April 21, 2010 5 p.m.

Note: Please see the [CCT deadline Web site](#), as many NSF deadlines are listed here.