



Sept 20- Sept. 26, 2009

### **LSU Secures Additional LONI Funding for TeraGrid Research Activities**

The TeraGrid, a backbone of national cyberinfrastructure, received \$30.2 million in extension funding from the National Science Foundation to continue providing an integrated, persistent computational resource for the national research community. The project, led by the University of Chicago, is titled "TeraGrid Extension: Bridging to eXtreme Digital (XD)," and extends TeraGrid operations through 2011. Included in the extension is \$1.05 million that will come to the Louisiana Optical Network Initiative, or LONI, to extend the support and network connections that allow TeraGrid users to access LONI's computational resources through March 2011.

Honggao Liu, Ph.D., LSU's High-Performance Computing Director, and Daniel S. Katz, Ph.D., senior computational scientist with the University of Chicago and Argonne National Laboratory who also is an adjunct associate professor in the LSU Department of Electrical and Computer Engineering and previously led the Cyberinfrastructure Development Division at the LSU Center for Computation & Technology, developed and led LONI's extension proposal for TeraGrid.

"We are pleased to receive this extension funding so we can continue our work with the TeraGrid, using this effort to enhance Louisiana's own computational resources while contributing to the backbone of our national cyberinfrastructure," Liu said.

TeraGrid is a National Science Foundation-funded research collaboration that incorporates high-performance computing resources from 11 partner sites across the country. Currently, TeraGrid resources include more than one petaflops of computing capability and more than 30 petabytes of online and archival data storage, with rapid access and retrieval across high-speed, fiber optic networks. TeraGrid researchers can access more than 100 discipline-specific databases. With this combination of resources, the TeraGrid is the world's largest, most comprehensive distributed cyberinfrastructure for open scientific research.

The National Science Foundation, or NSF, selected LONI to become a new TeraGrid resource provider in September 2007. Under Katz's direction, LSU staff completed the work necessary to integrate LONI's 50-teraflops centerpiece supercomputer, Queen Bee, into the TeraGrid, and the first national TeraGrid users began accessing Queen Bee in February 2008. LONI contributes half of Queen Bee's computational cycles to support the national research community, in exchange for \$2.59 million in funding that the NSF

allocated to LONI starting in February 2008 through March 2010 for user support and system operations. The new extension award applies through March 2011.

LONI is one of 11 NSF TeraGrid resource providers. The others are Indiana University; National Center for Atmospheric Research; National Center for Supercomputing Applications; National Institute for Computational Sciences; Oak Ridge National Laboratory; Pittsburgh Supercomputing Center; Purdue University; San Diego Supercomputer Center; Texas Advanced Computing Center; and the University of Chicago/Argonne National Laboratory.

For more information on LONI, please visit <http://www.loni.org>. For more information on TeraGrid, please visit <http://www.teragrid.org>.

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

- Gabrielle Allen has received an award from the National Science Foundation titled "Collaborative Research: Community Infrastructure for General Relativistic MHD (CIGR)." The award is in the amount of \$400,000 for three years.
- Gabrielle Allen also received another award from the National Science Foundation titled "Strategies for Remote Visualization on a Dynamically Configurable Testbed." The award is in the amount of \$299,447 for two years.
- Erik Schnetter has received an award from the National Science Foundation titled "Enabling Science at the Petascale: From Binary Systems and Stellar Core Collapse To Gamma-Ray Bursts." The award is in the amount of \$35,896 for one year.
- Dr. Erik Schnetter has received another award from the National Science Foundation titled "PetaCactus: Unraveling the Supernova -- Gamma-Ray Burst Mystery." The award is in the amount of \$1,400,000 for five years.

*All four of these grants contribute toward a larger research project to develop new multi-scale, multi-physics applications for computational science.*

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

- Red Stick Animation Festivals Seeks Films  
Source: 2theadvocate.com  
<http://www.2theadvocate.com/entertainment/fun/59405277.html>
- Students Invited to Participate in ACM Regional Programming Contest Nov. 6 & 7  
Source: Supercomputing Online  
[http://supercomputingonline.com/index.php?option=com\\_content&view=article&id=17266:students-invited-to-participate-in-acm-regional-programming-contest-nov-6-a-7&catid=15:latest&Itemid=50](http://supercomputingonline.com/index.php?option=com_content&view=article&id=17266:students-invited-to-participate-in-acm-regional-programming-contest-nov-6-a-7&catid=15:latest&Itemid=50)

### **Lectures This Week:**

- There are no lectures scheduled for this week.
- Xin Li, assistant professor at CCT and LSU Department of Electrical and Computer Engineering, will be organizing this year's CCT Colloquium Series. He is working hard to put together an interesting program for the coming year and would appreciate any input or suggestions. Feel free to contact Xin at [xinli@cct.lsu.edu](mailto:xinli@cct.lsu.edu).

### **Please Note:**

- There will not be an ALL CCT meeting in September, as the scheduled meeting conflicts with the College of Basic Sciences Honors Convocation. Future ALL CCT meetings for the Fall 2009 semester will take place Oct. 21, Nov. 11 and Dec. 16. All meetings are at 3 p.m. in Johnston 338 unless otherwise announced. Please make every effort to attend these important meetings.
- There will be an HPC training, Introduction to MPI, Thursday Sept. 24 from 1:30 to 3:30 in Johnston 338. For more information or to register visit: <http://www.hpc.lsu.edu/training/tutorials/index.php>
- CCT faculty, staff and students can access pictures from events, conferences and activities from the online photo gallery at <http://www.cct.lsu.edu/site97.php>. These images are CCT property and are available to use for posters, presentations and other needs.
- LSU, through CCT and the Department of Computer Science, hosts the ACM South Central Regional Collegiate Programming Contest for undergraduate students from community and technical colleges and universities in Texas, Oklahoma and Louisiana. This year, that contest will take place Saturday, Nov. 7, with an introductory scripting contest on Friday, Nov. 6. The regional contest is part of annual events leading up to the ACM International Collegiate Programming Contest World Finals. In the semester prior to the international contest, students compete regionally in teams of three undergraduate students and one professor, who acts as the coach. The professor acting as coach must register each team by Saturday, Oct. 31 to compete in the regional competition. Teams pay a registration fee of \$175, or an early bird fee of \$125 if they register by Wednesday, Sept. 30. To register, visit: <http://icpc.baylor.edu> .
- Registration is now open for the Supercomputing 2009 Education Program at the conference in Portland, which will take place Nov. 14-17. The Education Program helps educators and students learn more about computational science topics and gives educators ideas to bring these topics into their classrooms. The program is open to undergraduate faculty, undergraduate and graduate students, and high school teachers. To register or for more information, please visit <http://computationalscience.org/sc09>.

- The SC09 Student Contest Program is accepting team registrations. This is a competitive programming event, where teams of no more than five students will be given eight to 12 problems from various scientific problem domain areas. The competition will take place Monday, Nov. 16 at the SC09 conference in Portland, Oregon. Awards will be announced on Tuesday, November 18 at an SC09 Education Program plenary session. Register your team today, [http://sc09.sc-education.org/conference/studentcomp\\_signup.php](http://sc09.sc-education.org/conference/studentcomp_signup.php). Deadline to register is Thursday, October 1, 2009.
- Please remember to send your news concerning grants, awards, conferences, or other pertinent information that should be communicated to CCT to PR Manager Kristen Sunde at [ksunde@cct.lsu.edu](mailto:ksunde@cct.lsu.edu).

### **Upcoming Grant Deadlines:**

Note: Please see the CCT deadline Web site, as many NSF deadlines are listed here: <http://www.cct.lsu.edu/about/grants/deadlines/events.php>

- CreativeIT  
October 13 2009 10:00 a.m.  
A portion Of \$7,000,000.00 available  
[http://www.nsf.gov/pubs/2009/nsf09572/nsf09572.htm?govDel=USNSF\\_25](http://www.nsf.gov/pubs/2009/nsf09572/nsf09572.htm?govDel=USNSF_25)
- EPSCoR Research Infrastructure Improvement Program: Track-1 (RII Track-1)  
October 19 2009 10:00 am  
At Most \$ 4,000,000.00 available  
[http://www.nsf.gov/pubs/2009/nsf09570/nsf09570.htm?govDel=USNSF\\_25](http://www.nsf.gov/pubs/2009/nsf09570/nsf09570.htm?govDel=USNSF_25)
- EPSCoR Research Infrastructure Improvement Program: Track-2 (RII Track-2)  
November 18 2009 10:00 am  
At Most \$ 2,000,000.00 available  
[http://www.nsf.gov/pubs/2009/nsf09571/nsf09571.htm?govDel=USNSF\\_25](http://www.nsf.gov/pubs/2009/nsf09571/nsf09571.htm?govDel=USNSF_25)