



Aug. 9-15, 2009

University One of Four Host Sites for Scaling to Petascale Workshop

LSU, through the Center for Computation & Technology, was one of four sites nationwide participating in the Great Lakes Consortium Virtual Summer School's Scaling to Petascale Workshop, which took place Aug. 3-7.

The workshop, which CCT faculty and staff hosted on behalf of the University, focused on cyberinfrastructure and applications the scientific research community will need as high-performance computing systems advance to the petascale level, capable of running 1,000 trillion calculations per second.

The Scaling to Petascale Workshop began Monday, Aug. 3, with 140 students participating across four sites -- LSU, National Center for Supercomputing Applications, University of Michigan and Oak Ridge National Laboratory. LSU had 24 registered attendees from institutions including Brown University, Columbia and Emory.

Throughout the week, the workshop covered topics such as Programming with MPI, Debugging with DDT, Profiling and Optimizing, PGAS languages, Charm++, Load Balancing, the DOE Advanced Computational Software Collection, and parallel programming with multi-core.

Professor Thomas Sterling was the keynote speaker for the workshop, and other CCT faculty and staff assisted with teaching and demonstrations. Le Yan gave a Debugging with DDT talk on Monday afternoon, and Yan and Adam Jundt both offered hands-on instruction and assistance for the LSU attendees. Herbert Fosso, a doctoral student working with Juana Moreno, acted as teaching assistant for the workshop, and Isaac Traxler conducted an HPC facility tour for the LSU group.

On Thursday, Aug. 6, CCT hosted a banquet for the LSU participants featuring a speech by Joel Tohline, who described his work and research experiences in the world of computational science.

For more information on the Scaling to Petascale Workshop, please visit <http://www.greatlakesconsortium.org/events/scaling/agenda.html>.

Pats on the Back:

- Congratulations to CCT faculty and staff for a successful exhibit representing University research in digital media during SIGGRAPH 2009, Aug. 4-6 in New Orleans.
- Susan Ryan, a professor in the LSU School of Art, gave an Art Talk during SIGGRAPH that was published in the current edition of Leonardo, a premier arts journal. Ryan was part of a panel on “Stitching it Together: Technology and Aesthetics in the Wearable and Natural.” Her talk examined the trend toward miniaturization of wearable technologies and their context in discourses on art and the body. Stephen David Beck and Robert Kooima also were featured speakers at SIGGRAPH 2009.
- The journal Classical and Quantum Gravity highlights a community paper called "Testing Gravitational-Wave Searches with Numerical Relativity Waveforms: Results from the First Numerical Injection Analysis (NINJA) Project" with authors from many institutions, including several current and former CCT members. Article is online at <http://www.iop.org/EJ/news/-topic=1425/>.
- An article by Shantenu Jha and co-authored by Hugh S. C. Martin, Stefan Howorka and Peter V. Coveney, was selected for the cover story of Journal of Chemical Theory and Computation. The article, “Determination of Free Energy Profiles for the Translocation of Polynucleotides through α -Hemolysin Nanopores using Non-Equilibrium Molecular Dynamics Simulations,” acknowledges LONI and TeraGrid resources.
- Several CCT faculty, staff and students are assisting the Department of Computer Science this week with the Computer Science Intensive Orientation for Students, which takes place Aug. 10-14. This initiative gives incoming freshmen interested in computer science a firm foundation with which to begin their educational careers. Thanks to all who are assisting with this important endeavor!

Please Note:

- The Fall 2009 semester begins Monday, Aug. 24. If you have questions about student worker hours or needs for the fall, please contact Brittany Juneau at bjuneau@cct.lsu.edu.
- Future ALL CCT meetings for summer and the Fall 2009 semester will take place Aug. 26 (there will be a special presentation by LSU Intellectual Property at this meeting!), Sept. 23, 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.
- IEEE Cluster 2009 will take place Aug. 31-Sept. 4 in New Orleans. Daniel S. Katz is general chair, and Thomas Sterling is program chair for Cluster 2009. To register or learn more about the conference, please visit:

<http://www.cluster2009.org>.

- 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>.
- Please feel free to suggest nominees, including yourself, for the SC 09 Education Program Awards: <http://sc09.sc-education.org/opportunities/index.php>. Contact Kristen Sunde at ksunde@cct.lsu.edu if you need assistance with this process.
 - The Dr. Robert M. Panoff Student Award for Explorations in Science Through Computation is open to high school, undergraduate, and graduate students exploring science made possible through computation. Deadline to apply is Monday, August 31, 2009.
- 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. 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.

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>

- Information and Intelligent Systems (IIS): Core Programs
August 30 2009 10:00 am
At Most \$ 3,000,000.00 available
http://www.nsf.gov/pubs/2009/nsf09557/nsf09557.htm?govDel=USNSF_25
- Computing and Communication Foundations (CCF): Core Programs
August 30 2009 10:00 am
At Most \$ 3,000,000.00 available
http://www.nsf.gov/pubs/2009/nsf09555/nsf09555.htm?govDel=USNSF_25

- CISE Cross-Cutting Programs: FY 2010

August 30 2009 10:00 am

At Least \$ 3,000,000.00 available

http://www.nsf.gov/pubs/2009/nsf09558/nsf09558.htm?govDel=USNSF_25