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CCT Weekly September 25- October 1, 2011

[CCT Weekly, September 27, 2011](#)

LA-SiGMA and LSU CCT Host Summer Programs to Impact STEM Education in Louisiana

The Louisiana Alliance for Simulation-Guided Materials Applications (LA-SiGMA) and LSU's Center for Computation & Technology (CCT) welcomed 20 undergraduate and high school students, along with six high school teachers, to conduct research with faculty members this summer. Program participants worked with faculty on cutting-edge research in materials and computational science.

Both LA-SiGMA and CCT hosted a "Research Experiences for Undergraduates (REU)" program for a nine-week session. Undergraduate students and high school students from around Louisiana and the country joined research teams and learned how scientific research is conducted. The research projects varied, ranging from studying better ways to store hydrogen, to ways to enhance drug delivery, and using supercomputers to program and run simulations. CCT's REU in particular included projects such as:

- creation of an interactive and customizable meta-instrument using the Microsoft Kinect;
- associating interactive digital music with physical locations on mobile devices;
- performing high performance computing as part of the ParalleX group software development; and
- exploration of novel design techniques for tangible interfaces.

As part of LA-SiGMA's initiative to reach out to high schools, the LA-SiGMA grant funded three teachers in LSU's LaMSTI program, a three-year program in which high school science teachers earn their Masters' of Natural Science degree. LA-SiGMA also hosted three teachers from the Louisiana School for Math, Science, & the Arts, who learned how to incorporate high performance computing into high school science, math, engineering, and technology classes.

Professors Mark Jarrell and Randall Hall, leads for LA-SiGMA at LSU, stated: Computational science and engineering are now recognized by nearly all national and international science societies as a third method of scientific inquiry, coequal with experiment and theory. Computational methods are also an essential part of technology and even manufacturing. As such, it is imperative for the economic future of Louisiana and the nation that we are help excite and entice the best and brightest students in Louisiana to pursue careers in STEM disciplines. In partnership with the Louisiana School for Math, Science, & the Arts, LA-SiGMA, through its Research Experiences for Teachers (RET), is helping to introduce state-of-the art computational methods in chemistry, physics, and mathematics that can be introduced into high school classrooms to build the intellectual infrastructure necessary to position Louisiana as a major player in computational science and technology. LA-SiGMA, through its REU program, is exposing outstanding undergraduates to computational methods in materials science that will help expand their future educational and professional opportunities.

Participants of both the REUs and the RET gave rave reviews of their experiences and the quality of learning that was available to them. Overall, the experience has either encouraged them to further their education using some form of computational sciences, or it has opened new pathways for their current curriculum strategies.

Chris Hynes, chemistry teacher at the Louisiana School for Math, Science, & the Arts, and a LA-SiGMA RET participant, said, "I have a Ph.D. in chemistry and have been teaching for about 20 years…I was not really convinced that HPC could have a sustained, meaningful contribution to how I teach chemistry. But once I experienced the multi-faceted projects that use HPC, I realized it could be used at a variety of levels. Overall, my participation in the LA-SiGMA program has been career altering."

Katelyn Kufahl, senior at University of Wisconsin and CCT REU participant, said, "I feel that this experience has done nothing less than revolutionize the course of my education. I now recognize that I want to go to graduate school in a computational discipline and continue participating in related research. Here, I have found a wealth of skills and knowledge in the field, met many interesting and successful professionals, and kindled in myself a new interest—even a passion, perhaps. All things considered, the program far exceeded even my wildest expectations."

Funding for LA-SiGMA activities is from a $20 million cooperative agreement between the National Science Foundation (NSF) and the Louisiana Board of Regents' EPSCoR program, #EPS-1003897. LA-SiGMA member institutions are Grambling University, Louisiana State University, Louisiana Tech University, Southern University, Tulane University, University of New Orleans, and Xavier University. LA-SiGMA hosts REU programs at six of the schools. The CCT has a separate NSF grant to fund the CCT REU program (#OCI-1005165); this REU program began in 2010 and has been very successful.

For more information on the La-SiGMA program, visit: http://www.institute.loni.org/lasigma/. For more information on the LSU CCT, visit: http://www.cct.lsu.edu/home.

Pats on the back:
• Xin Li was selected for nomination for the IBM Faculty Award. IBM's recommendation of Li is based on the significance and impact of his work in biomedical science fields, which is also aligned with the strategic direction of CCT.

Lectures this week:
Wednesday –
There will be an AVATAR Series lecture on [“Understanding the Virtuoso: Exploring Music and Performance with Software”](#) by Nicolas Gold, University College London. The lecture will take place Wednesday, September 28 at 9:30 AM in 338 Johnston Hall.

CCT in the news:
LSU CCT Researchers Explore Enhanced Scalability for Accelerated ParalleX Computing
Source: [HPCwire](#)

Please Note:
• CCT will be updating the faculty, staff and postdoc directories on the website with professional LSU portraits. We are asking that all faculty, staff and postdocs (no graduate or undergraduate students) who do not already have one, choose one of the three sessions

below to take one. There is no need to schedule a date/time, just show up at University Relations' office during the given dates/times. It will only take 5-10 minutes per person. If you have already taken a portrait, University Relations will send us the file. University Relations ("Lakeshore House") is located near the Lod Cook Alumni Center on W. Lakeshore Dr., in between the Phi Kappa Psi Fraternity and Kappa Delta Sorority. The photo studio is on the third floor, room 314. We ask that men wear a suit jacket/blazer with a tie and that women wear a suit jacket/blazer. The photo is from the waist up, so it does not matter what you wear on the bottom.

Available dates:

Thursday, September 29th, 9:00 am-noon

Monday, October 3rd, 1:30-4:30 pm

Wednesday, October 12th, 9:00 am-noon

• CCT invites faculty, staff, students and special guests to its 10th Year Celebration of the center's successful growth from its birth as "LSU CAPITAL" to a vibrant center for interdisciplinary computational research, training, and economic development. The celebration is October 26, 2011 (8:30 A.M. - 5:30 P.M.) at the LSU Energy, Coast & Environment Building Rotunda Auditorium and Lobby. Lunch will be provided free of charge in the Rotunda. Please RSVP to susie@cct.lsu.edu to reserve your lunch seat (deadline: October 18th). For more information, visit http://www.cct.lsu.edu/10yr.

• The 2011 ACM ICPC South Central USA Regional Programming Contest is now accepting team entries for the October 28 and 29th event. The ACM International Collegiate Programming Contest (ICPC) provides college students with opportunities to interact with students from other universities and to sharpen and demonstrate their problem-solving, programming, and teamwork skills. The contest provides a platform for ACM, industry, and academia to encourage and focus public attention on the next generation of computing professionals as they pursue excellence. The contest is a two-tiered competition among teams of students representing institutions of higher education. Teams first compete in regional contests held around the world from September to November each year. The winning team from each regional contest qualifies to advance to the ACM International Collegiate Programming Contest World Finals, typically held the following March to mid-April. Additional high-ranking teams may be invited to the World Finals as wild card teams. Fees are $125.00 per team if registered prior to October 10, 2011. Registration fees are for a team of three members and one coach. Guests and alternates are an additional $30 each. (See complete registration rules at: http://icpc.baylor.edu/icpc/regionals/About.htm). The South Central USA Regionals will take place on October 28 and 29th at
o   Louisiana State University, Baton Rouge, Louisiana
o   Baylor University, Waco, Texas
o   La Tourneau University, Longview, Texas
o   East Central University, Ada, Oklahoma
For more information, or to register a team, visit: http://icpc.baylor.edu/icpc/regionals/.

• **Register for SC11 by Oct. 17th and save up to $250!** The SC11 early registration deadline is **October 17th**. The fee structure for SC11 makes it even more advantageous to register early this year. Registering early can save you up to $250 off your technical program registration (depending on your registration category). Also, registering by Oct. 17th can save you up to $305 off tutorial registration. http://sc11.supercomputing.org/?pg=registration.html

• **Electronic Arts Recruiting LSU Students for Internships:** Electronic Arts Inc. will be visiting the LSU campus October 24-25, 2011, to recruit students for their intern positions as follows: software engineer; designer; technical artist; online software engineer; software quality assurance engineer; and business analyst, analytics. Deadline to submit resumes and apply is Monday, October 17, 2011. For more information, visit http://www.cct.lsu.edu/eaintern

• Submissions for the 2012 Red Stick International Animation Festival are now being accepted thru January 6th. Visit http://www.redstickfestival.org/competition/submissions/ for details.

• TechX2011 will be held October 5-7 at the Baton Rouge River Center. The concept behind TechX 2011 is simple - bring together the entire technology and telecommunications buying and decision making community, and provide them with network marketing and education to show them how many great companies are right here in the Gulf Coast Region. Registration is FREE! For more information and to register, visit http://www.techx2011.com/

• TRIPLE EX (Excite, Explore, Experiment) - 3rd Annual Conference for Undergraduate Research, November 4, 2011 (8:00AM - 4:00 PM), LSU Union Cotillion Ballroom. The LSU Office of Strategic Initiatives and The Cain Center are sponsoring a Conference for Undergraduate Student Research. Submissions are open until October 3rd for posters and oral presentations. For more information, visit http://www.i3.lsu.edu/tripleex

• Save the date! Louisiana EPSCoR is hosting the greatly anticipated National Science Foundation workshop, *Science: Becoming the Messenger*, on November 17, 2011, at the Baton Rouge Marriott. The 1-day workshop provides targeted communications training to Researchers, Faculty & Postdocs, Students, Public Relations Officers and Communicators. The NSF's Office of Legislative and Public Affairs has assembled a team of nationally renowned communicators to provide this training. Participants will learn how to craft a message and communicate with a variety of audiences, explore new media, pick up live camera interview skills and more. There is no registration fee to attend but pre-registration is required. Registration details to come soon!

• Post Your Part-time Jobs for FREE through Careers2Geaux: Now that school is back in session, our students looking for part-time jobs. Through Careers2Geaux, you may post any position type, including your part-time opportunities, for FREE! This system is password-protected and available to LSU students, faculty, staff, and registered alumni 24 hours a day, seven days a week. To list your position(s) in Careers2Geaux, click the Careers2Geaux link https://lsu-csm.symplicity.com/employers and follow the instructions for creating an account. Once you enter the information for your position, the status of your posting will remain "pending" until reviewed by a staff member. Open positions are posted for 45 days. If you have any questions, please contact Amy Caillouet, Administrative Coordinator, at 225-578-2162 or email at amyc@lsu.edu.

• 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. Dine-in restaurant meals are not allowed on LaCarte credit cards. Please contact Susie McGlone (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 two weeks, so please plan accordingly.

• Please remember to send your news concerning grants, awards, conferences, or other pertinent information to CCT Event Coordinator Jennifer Fontenot at jennifer@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.
o   Facebook group : LSU Center for Computation & Technology
o   Twitter : LSUCCT
o   YouTube channel : LSUCCT

Interest groups:
• **MAG (Mobile App-Art-Action Group)**: Everyone interested in the potential for Mobile Apps is invited to come and add their vision for these revolutionary devices. Meetings are schedule October 5th, November 2nd and December 7th, 5:00-6:00 pm. For more information, visit http://www.cct.lsu.edu/site.php?pageID=63&newsID=1402. Contact: Jesse Allison (jtallison@lsu.edu)

• **GPU**: meets weekly (Wednesdays @ 2:30 pm in 338 Johnston) and encourages participation from anyone who would like to join in the discussions. Join the mailing list: lasigma-gpu@loni.org. Contact: Bhupender Thakur (bthakur@cct.lsu.edu)

Upcoming events:
September 28: Training: Intro to MPI
October 24-25: Electronic Arts Recruitment @ LSU
October 24: Cinema for the Ears
October 26: CCT's 10th Year Celebration
October 28-29: ACM ICPC South Central USA Regional Programming Contest
Thru November 1: Symposium on Laptop Ensembles & Orchestras accepting entries
November 12-18: SC11
Thru January 6, 2012: Red Stick International Animation Festival "Best of the Fest" accepting entries

Upcoming Grant Deadlines:
Note: Please check the CCT deadline Web site , since it is updated daily.

Partnerships for International Research and Education (PIRE)
October 19, 2011 10:00 am
At Most $ 4,000,000.00 available

Sustainability Research Networks Competition (SRN)
December 1, 2011 10:00 am
At Most $ 12,000,000.00 available

Software Infrastructure for Sustained Innovation (SI2) Scientific Software Innovation Institutes (S2I2)
December 14, 2011 10:00 am
At least $500,000.00 available

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