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CCT Weekly Jan. 30- Feb. 5, 2011

CCT Weekly, Feb. 1, 2011

The Laptop Orchestra of Louisiana, an LSU-based group which uses computer technology to create musical performances, will take their talents on the road for appearances in Alabama and Georgia at the end of January.

The orchestra will be performing and giving lectures during a four-city tour during the last week of January. Performances and lectures will take place in Mobile, Ala., as well as in Atlanta, Athens and Columbus, Ga.

The concert schedule is as follows:
• Tuesday, Jan. 25, at 7:30 p.m. at the Recital Hall of the Laidlaw Performing Arts Center, on the campus of the University of South Alabama in Mobile;
• Wednesday, Jan. 26, at 7:30 p.m. in the Kopleff Recital Hall on the campus of Georgia State University in Atlanta;
• Thursday, Jan. 27, at 7:30 p.m. at the River Center for the Performing Arts' Studio Theater on the campus of Columbus State University in Columbus, Ga.;
• Friday, Jan. 28, at 6:30 p.m. in Dancz Hall on the campus of the University of Georgia in Athens, Ga.

"The Laptop Orchestra of Louisiana explores new modes of creating sounds with technology and is defining new kinds of musicianship and virtuosity," said LSU School of Music Professor Stephen David Beck, who directs the orchestra. "Objectively, we look to engage audiences with exciting and unusual sounds while challenging the very notion of ensemble music, whether chamber or orchestral. Members of the orchestra are performers, composers and computer scientists, each contributing to these explorations through their individual expertise and strengths. At the same time, all members of the group are expected perform, compose and develop software to broaden the repertoire of music and related technologies.

The orchestra's focus on the concert performance is the means to an end of a larger process of creativity, technological advancement and improvisation, Beck said.

"The group is constantly asking, 'what happens if we do this?' and then seeing what actually happens," he said. "Sometimes things work, sometimes they don't. Regardless, we use the lessons of these experiments to constantly improve our software, our repertoire and our capability, and to rethink the entire process of musical creativity in the age of information technology.

The Laptop Orchestra of Louisiana is a project of the LSU Center for Computation and Technology's Lab for Creative Arts & Technologies, the AVATAR Initiative in Digital Media and the LSU School of Music. It is a research and performance ensemble dedicated to the exploration of real-time computational technologies and digital media for the purpose of group music making. Inspired by ensembles at both Princeton and Stanford, the group looks to bring the same excitement and virtuosity to the Gulf South, but with its own individual flair.

The orchestra's research is focused on time synchronization, creating tangible interactions, developing new tools for managing orchestral software and composing new works for laptop ensembles. It is also exploring the adaptation of distributed computing technologies for management and control of a scalable ensemble from as few as five members to as many as the orchestra can envision.

Along with Beck, members of the orchestra include LSU Center for Computation and Technology Associate Professor Jesse Allison and students Jeff Albert, Lindsey Hartman, Nick Hwang , Corey Knoll, Andy Larson, Yemin Oh and Brandon Thomas. Contributing researches include Chris Branton, Shantenu Jha, Sharath Maddineni, Jeff Modell, Cornelius Toole, Brygg Ullmer and Ole Weidner.

For more information on the tour, contact Beck at sdbeck@lsu.edu.

To learn more about the Laptop Orchestra of Louisiana, visit http://laptoporchestrala.wordpress.com.

CCT Spotlight: Bhupender Thakur

Bhupender Thakur, a native of Kullu (Himachal), India, joined CCT in June of 2010 as a LONI Computational Scientist and an IT Analyst. Bhupender's job is to help his collaborators move from simpler machines to massively parallel ones.

Under the LONI institute and LA-SiGMA, Bhupender's focus area is Materials World, including hard and soft condensed matter and chemical and bio-materials. The tools he uses include MPI, CUDA and other programming languages.

Bhupender's current research project is GPU acceleration for Quantum Monte Carlo simulations. Some of his other research interests include theoretical and computational physics, nuclear structure, strongly correlated systems, theoretical chemistry, numerical linear algebra and scientific computing, parallel programming paradigms and probability and statistics. Bhupender's specialties include theoretical nuclear structure, quantum many body systems, numerical linear algebra, scientific programming and parallel programming paradigms.

Bhupender was recently married in January to Dansha Jiang. In his free time, he enjoys sports and traveling. An interesting fact about Bhupender is that he used to be a physicist. His favorite gadget is his GPS. Bhupender prefers LSU football over the symphony, and spring over fall. When asked what his prescription for life is, he said, "Have your peace of mind, without losing your future perspective."

Pats on the Back:
• Blaise Bourdin, Christopher White, and Mayank Tyagi received an award from Chevron Energy Technology Company titled, "Coupling heat and mass transfer with the variational approach to fracture: An alternative approach to fracture representation and modeling." The award is for $85,000 for one year.

CCT in the News:

LOL Like You've Never Seen It
Source: Ledger-Enquirer

GRENDL: Grid Enabled Deployment for Laptop Orchestras
Source: Georgia Tech Center for Music Technology

Please Note:

• This summer, CCT will host its second Research Experience for Undergraduates (REU), a nine-week program that gives students an opportunity to join interdisciplinary research groups and use the advanced cyberinfrastructure available on campus to work

collaboratively on computational science projects. Each participating student will receive a stipend of $4,500, free housing in University dormitories, and up to $500 in travel expenses. Interested undergraduate students from any academic discipline are welcome to apply. Applications are due February 28, 2011, and students will be notified of whether they have been accepted by March 31. For more information or to see details on how to apply, please visit http://reu.cct.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, 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

• Please remember to send your news concerning grants, awards, conferences, or other pertinent information to CCT Event Coordinator 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

Upcoming Grant Deadlines:

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

Research Experiences for Teachers (RET) in Engineering and Computer Science
Supplements and Sites
February 28 2011 10:00 am
At Most $ 500,000.00 available

High Performance Computing System Acquisition: Enhancing the Petascale Computing Environment for Science and Engineering
March 07 2011 10:00 am
At Most $ 30,000,000.00 available

Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce (CI-TEAM)
March 16 2011 10:00 am
At Most $ 1,000,000.00 available

Cyber-Physical Systems (CPS)
March 21 2011 10:00 am
At Most $ 5,000,000.00 available

***NSF has revised proposal submission requirements - a quick review of the changes are noted in this announcement:
 http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_sigchanges.jsp

Check the NSF website for announcements - www.nsf.gov

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