January 24, 2011 Bi-weekly Newsletter Issue 2.13



University of Southern California Women in Science and Engineering Program (WiSE)

www.usc.edu/wise

WiSE Program
Upcoming Deadlines

To see all the USC WiSE Grant Programs, including ongoing grants without specific deadlines, please visit: http://www.usc.edu/programs/wise/programs/

WiSE Major Support for Current Faculty

Deadline: Thursday, January 27, 2011

This competitive program offers awards of up to \$25,000 and is aimed at offsetting subtle biases, barriers, and career interruptions that have been shown to hinder the advancement of women faculty in science and engineering at research universities.

Please visit our website for more information: Major Support for Current Faculty

Calendar: WiSE
Networking Meetings

WiSE Faculty Networking Meetings

Meetings held the last Thursday of the month at 12pm in HNB 107

- Thursday, January 27, 2011
- Thursday, February 24, 2011
- Thursday, March 31, 2011

Bring your own lunch; cookies, coffee, and tea provided

Calendar: Other Events

USC's Young Researchers Program: Informational Meeting

Come learn about USC's Young Researchers Program - a fun and unique summer outreach opportunity where USC graduate students can make a difference in our local community and shape future generations of scientists! YRP pairs grad student mentors with local high school students in order to teach them how to conduct, interpret, and communicate scientific research. Come find out about the many ways YRP can benefit you....starting with FREE FOOD! No RSVP required! See below for details.

When: January 25 from 4-5pm

Where: ZHS 118

Who: Graduate students & post-docs in USC sciences or engineering programs. Faculty are welcome to attend.

Contact: Amanda Liss, aliss@usc.edu; Website: youngresearchers.usc.edu

Mathematics Distinguished Lecturer Series: Sparse Approximations: Algorithms and Analysis

Dr. Anna Gilbert, Mathematics Dept. University of Michigan Thursday, January 27th, at 4:30pm in SAL 101

Abstract: The past 10 years have seen a confluence of research in sparse approximation amongst computer science, mathematics, and electrical engineering. Sparse approximation encompasses a large number of mathematical, algorithmic, and signal processing problems which all attempt to balance the size of a (linear) representation of data and the fidelity of that representation. I will discuss several of the basic algorithmic problems and their solutions, including compressive sensing and sublinear algorithms for sparse signal recovery. Also, I will address two application areas, analog-to-digital conversion and biological group testing, in which sparse approximation problems appear and for which we have novel hardware and experimental designs.

Harvey Mudd Conference: Broadening Participation in the Mathematical Sciences

Friday and Saturday, February 4-5, 2011

Conference webpage: http://www.math.hmc.edu/conferences/2011/

For more information about attending, contact Cymra Haskell at 213-740-2460 or chaskell@usc.edu

...Calendar: Other Events

AWIS LAVC Events

- Welcome Back Networking Event Friday, February 4, 5:30-7:30pm
 - AWIS-LAVC is planning a fun filled happy hour at the martini lounge "Lola's" on Friday 2/4/11 from 5:30 7:30 pm. \$5.00 martinis and \$5.50 happy hour appetizer specials.
 - Address/ phone: Lola's, 945 N Fairfax Ave., West Hollywood, CA 90046, Phone: 323.654.5652
 - Please RSVP here.

If you have any questions about AWIS LAVC events, email <u>webadmin@awislavc.org</u> or <u>president@awislavc.org</u> or <u>visit www.awislavc.org</u>.

Opportunities

Summer 2011 Internship Opportunity, The National Science Foundation (NSF)

Program Dates: May 31 – August 5, 2011

Application Deadline: Friday, January 28, 2011

The ten-week internship includes a one-week pre-internship professional development session, a nine-week research assignment with a mentor/advisor, and a post-internship reflection session.

Benefits:

- · Round-trip ticket to Washington, DC.
- Undergraduate students receive a \$3,000 stipend and graduate students receive a \$4,000 stipends.
- Summer Housing
- Ground transportation and local travel allowances.

Click here for an Application

Summer 2011 Research Program Opportunity

Center of Integrated Nanomechanical Systems (COINS)

University of California, Berkeley

Program Dates: June 20 - August 12, 2011

Application Deadline: Monday, January 31, 2011

This 8 week research experience includes placement in cutting edge nanoscience research laboratory, tours of the Molecular Foundry at the Lawrence Berkeley National Lab, Graduate School Advising & GRE prep course. Research areas include: Energy Scavenging, Sensing, Electronics & Wireless.

Benefits:

- \$4,000 stipend
- Travel Allowance (up to \$500)
- Room & Board at the International House

Application Process:

- On-line application: http://nano.berkeley.edu/coins
- Minimum: GPA 3.25
- Students from underrepresented communities are encouraged to apply
- Must be a US Citizen or Permanent Resident

For more information contact: Meltem Erol Director, Education & Outreach; Phone: 510-643-7380, merol@berkeley.edu

Polymers @Case Research Experience for Undergraduates (REU)

Case School of Engineering , Case Western Reserve University

Program Dates: May 23 – July 29, 2011 Application Deadline: February 1, 2011

Jointly hosted by the Department of Macromolecular Science and Engineering & the Center for Layered Polymeric Systems (CLiPS)

- \$6000 stipend
- Research areas: polymer nanocomposites, layered materials, functional and responsive systems, high
 performance materials, biomedical devices, polymer rheology and processing
- Professional development: polymer fundamentals, communication skills, ethics, industrial visits

Contact: Prof. LaShanda Korley, Prof. David Schiraldi, reu-polymers@case.edu

Website: http://polymers.case.edu/highlights/undergrad_summer.htm

... Opportunities

Summer 2011 Fluid Power Scholars Program for Undergraduates Fluid Power Institute at the Milwaukee School of Engineering (MSOE) June – August, 2011

Application Deadline: February 1, 2011

The Fluid Power Scholars Program is a collaborative effort between the Center for Compact and Efficient Fluid Power (CCEFP) and companies in the fluid power industry who are corporate members of the CCEFP. This highly selective summer program identifies and connects the very best undergraduate engineering students across the United States to the fluid power industry with the purpose of training the next-generation of fluid power leaders.

This is a highly competitive program, open to undergraduates who have successfully completed at least two years in an accredited engineering program in the United States. The Scholars program begins with an intensive three-day instructional program in fluid power, taught at the Fluid Power Institute at the Milwaukee School of Engineering (MSOE), and follows with internships in the fluid power industry. The 2011 Fluid Power short course at MSOE will be held early June 2011. Students should expect to spend 10-11 weeks as a participant in this program. Up to ten undergraduate students will be selected as Fluid Power Scholars by a committee of faculty and industry representatives. In addition to their paid internships, scholars will receive stipends for travel and living expenses associated with their work at MSOE.

Cornell University REU Programs

2011 LSAMP Summer Undergraduate Research Program accepting applications

Program Dates: June 5 - August 13, 2011

Application deadline: March 1, 2011

CU LSAMP-R was developed to aid in the retention of traditionally underrepresented minority groups in the sciences, technology, engineering and mathematics (STEM). It is an all expense paid summer research opportunity that provides undergraduate participants with the opportunity to work with distinguished faculty and staff as well as network with others in their field of interest through weekly luncheons.

Undergraduate students, interested in gaining a deeper understanding in an engineering-related field, have the opportunity to conduct and present research over a ten-week duration under the auspices of a Cornell Engineering faculty research mentor. Through this one-on-one partnership, participants will gain theoretical knowledge and practical training in academic research and scientific experimentation.

CU LSAMP-R offers participants:

- Research stipend of \$3,400
- Round-trip travel stipend up to \$300 for students living outside of Ithaca, NY
- · Double room in a residential hall
- Campus bus pass or a campus parking pass
- Access to state-of-the-art laboratories, libraries, computer/study lounges, etc.

Please visit <u>www.engineering.cornell.edu/lsamp</u> for more information and to apply. **Inquiries:** Jami P. Joyner, Diversity Programs, Cornell University, College of Engineering, 607.254.5202, <u>Jami.Joyner@cornell.edu</u>.

Summer Research at Cornell University: Cornell Center for Materials Research Program: June 6-August 12, 2011

Application deadline: March 1, 2011

The Cornell Center for Materials Research is offering a special summer research program with a stipend valued at \$4000, room in one of Cornell's on-campus dorms and additional funds for travel (non-CU students only). During the ten-week period, students will work with Cornell faculty on interdisciplinary materials research projects involving chemistry, physics, materials science and engineering disciplines. Students will also participate in an organized program of lectures, mini-courses (e.g. electronics, microscopy), laboratory visits and a variety of recreational activities.

- Open to Fall 2011 undergraduates who are US Citizens or permanent residents.
- Selection will be based on academic standing and faculty recommendations.
- Minority and female candidates are strongly encouraged to apply.
- All chemistry, physics and engineering majors are welcome to apply.
- Program includes stipend which covers housing, but does NOT cover food.

Get more information and apply at http://www.ccmr.cornell.edu/education/reu/

... Opportunities

Institute for Broadening Participation

Grad and Undergrad Programs funded by NSF and NASA

A variety of internships, fellowships, and scholarships nationwide in a wide range of STEM and related disciplines.

• For Undergraduates:

Paid Summer 2011 Undergrad Research Placements:

Over 400 programs - REU and Other Summer Research Opportunities for Undergrads

http://www.pathwaystoscience.org/Summerresearch.asp

• For Financial Support in Graduate School Opportunities:

Bridges, GK-12, IGERT and NSF Grad Research Fellowship programs provide generous stipend and tuition support for students through the National Science Foundation:

http://www.pathwaystoscience.org/Grad.asp

• For Postdoc Opportunities:

http://www.pathwaystoscience.org/Postdocs_portal.asp

• For NASA-supported internships, fellowships and scholarships:

http://intern.nasa.gov/

UNIQUE TEACHING OPPORTUNITY FOR FEMALE GRADUATE STUDENTS

Job Description: Iridescent, a STEM education non-profit, is now hiring for a Computer Science graduate student to teach a program called the Technovation Challenge. In this course, high school girls work together in teams to design a mobile app prototype using the Google App Inventor. We bring in professional female mentors from tech companies all over the city as well as undergraduate TA's to support them in this process. At the end of the course, students pitch their ideas to venture capitalists for a chance to have their app globally distributed. Our goal is to promote women in technology, by providing them with a supportive learning environment to gain skills and confidence in programming.

Time Commitment: The course will run for nine weeks, from 2/22/11 to 4/29/11. It will be held at the Iridescent studio (553 W. 23rd St.) from 5:30-7:30 on Tuesdays and Thursdays. The curriculum has already been designed and piloted, but the instructor will be responsible for teaching the course for all nine weeks and attending training sessions beforehand (exact dates TBD.)

Qualifications - Applicants must:

- Be current, female, graduate students in Computer Science or Education
- Have computer programming experience (proficiency in App Inventor is not necessary)
- Have experience teaching (in school setting or teaching courses as a GSI or TA)
- Be extremely responsible, dedicated, and passionate about the mission of Iridescent

Compensation: \$25/hour

Application Process: Please send a resume and cover letter to: <u>jenna@iridescentlearning.org</u>. The position must be filled immediately.

For more information, visit our website: www.technovationchallenge.org

"Spark" Seeks USC Volunteers to Mentor 7th & 8th Graders

Spark is a non-profit that places middle school kids in apprenticeships with professionals from a wide range of fields (www.sparkprogram.org). The organization has had a great track record with youth in the Bay area and they recently expanded to southern California.

Spark is currently looking for volunteers in the engineering and computer science fields to spend two hours per week this spring (March through June) with a 7th or 8th grader. The students would come to your office or workplace once a week and learn about what it's like to be a professor, a computer programmer, a robotics engineer... or you can fill-in-the-blank here! USC students and alums would make great potential apprentice teachers. This semester we have apprenticeships with a professor in the USC Math Department as well as with a professor in the School of Social Work, and we hope to expand our partnership with USC students, professors, and alums! We are happy to come to your office and make a presentation to introduce Spark and provide you with more information about our program.

If you -- and/or your students and colleagues -- would be interested in contributing please contact Ben Allen at 310-346-9826, ballen@sparkprogram.org or Jahan Boulden at 310-291-3900, nboulden@sparkprogram.org.

... Opportunities

Kellogg Center for Biotechnology Executive Education course 2011 April 11-15, 2011

BUSINESS FOR SCIENTISTS is designed to introduce scientists to business concepts and industry specific tools and frameworks. Basic knowledge in accounting, strategy, finance, and management will be covered and its relevance applied to the biomedical sector. The course will enable you to think of how innovation moves from bench to market.

For more information: http://www.kellogg.northwestern.edu/biotech/execed/scientists.htm, or contact Jeanne Laseman, Program Manager, 847.491.5540, j-laseman@kellogg.northwestern.edu.

News & Articles of Interest

NEWS at USC

To see the USC WiSE News archives, please visit www.usc.edu/programs/wise/news/

Katrina Edwards among Eight USC Professors Elected as Fellows of the American Association for the Advancement of Science (AAAS)

USC News, January 11, 2011



Edwards, director of the National Science Foundation-supported Center for Dark Energy Biosphere Investigations in Los Angeles, is honored for "important discoveries on interactions between microbes and minerals, especially at the ocean floor, how these influence global biogeochemical processes and for international leadership."

Click here for the complete story

Maja Matarić to Receive Presidential Mentoring Award

VSoE News, January 22, 2011



On January 21, President Barack Obama named 11 individuals, including Matarić, and four organizations as recipients of the awards, given each year by the White House to recognize the crucial role that mentoring plays in the academic and personal development of students studying science or engineering—particularly those who belong to groups that are underrepresented in those fields. Matarić will be honored for "helping to prepare the next generation of scientists and engineers"

Congratulations, Maja!

<u>Click here for the complete article</u>

Stories Set in Stone

USC College News, January 19, 2011



Ammonite fossil beds at Lyme Regis. Photo credit Frank Corsetti.

"Faculty, David Bottjer and Frank Corsetti, along with graduate students, Sarah Greene and Yadira Ibarra, from the USC College Department of Earth Sciences explore the cliffs of England to search for evidence of an ancient ocean crisis."

Click here for the complete story

...News & Articles of Interest

Other News & Articles of Interest

Keeping Women in the Science Pipeline

Sloan Foundation Conference Paper

by Mary Ann Mason, Marc Goulden, Karie Frasch, University of California, Berkeley

"Premier science largely depends on the quality of the pool of future scientists. For this reason the United States has made a major effort over the past 30 years to attract more outstanding U.S. students, particularly women, into research science. Women have risen to the challenge with significant increases in all physical sciences and engineering, and they have made a huge advance in the life sciences, where they now receive more than 50 percent of all Ph.D.s."

Click here for the complete paper

The Gender Gap on Service

Inside Higher Ed, January 12, 2011

- "For years, women in academe have complained that they are assigned a disproportionate share of departmental service duties -- work that needs to be done but that doesn't carry much weight when it's time to decide who gets promoted.
- "A study on the issue -- by Joya Misra, Jennifer Hickes Lundquist, Elissa Dahlberg Holmes and Stephanie Agiomavritis -- is being released today in *Academe*. It explores the subject through surveys of and interviews with 350 faculty members at the University of Massachusetts at Amherst in 2008-9 -- and finds significant gender gaps in service assignments and advancement of male and female professors. The study examines patterns related to specific service duties as well as allocation of time."

Click here for the complete article