

News Spring/Summer 2015

This page contains cumulative news items for the indicated semester. You can find the news from other semesters in our news archives at the bottom of the page.

Researchers Awarded \$2.1M DARPA Grant to Create New Paradigm for Human-Computer Communication



[Dr. Bruce Draper](#), [Dr. Jaime Ruiz](#), [Dr. Ross Beveridge](#), Dr. Chris Peterson (Mathematics), and Dr. Michael Kirby (Mathematics) have been awarded a \$2.1M grant from DARPA for their project, *Communication through Gestures, Expression, and Shared Perception*. The interdisciplinary research team will develop a system that allows people to communicate with computers through gestures and facial expressions.

When humans communicate with each other, they use more than language; gestures and expressions are an important part of the information that passes between them. As computers become our partners in performing cooperative tasks, we will communicate with them using non-verbal cues. Human-computer, nonverbal communication is beneficial in cases where language use is difficult: noisy environments (e.g., factories), where there is a language barrier, or when someone is hearing impaired.

The goal of this work is to create Elementary Composable Ideas (ECIs) based on gestures and expressions, so that the new paradigm encompasses all forms of communication, bringing communication between people and computers up to the level of communication among people.

[Read the CSU SOURCE article here](#)

Dr. Christina Boucher Wins Best Paper Award at the European Symposium on Algorithms



Congratulations to [Christina Boucher](#) and colleagues for winning a Best Paper Award at the 23rd European Symposium on Algorithms (ESA). The paper is titled, *Consensus Patterns (Probably) Has no EPTAS*. The paper co-authors are Assistant Professor Daniel Lokshantov, University of Bergen, and Christine Lo, a recent Ph.D. graduate at UCSD. This work will be presented at the ESA conference in Patras, Greece, September 14-16.

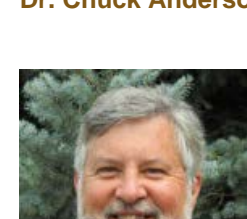
Department Establishes Colorado Computer Science Educators Conference (CoCSE)

This May the department established and held the inaugural Colorado Computer Science Educators Conference (CoCSE) designed to facilitate a long-needed collaboration between CS educators. The purpose of CoCSE is to discuss educational techniques and issues related to undergraduate and high school computer science education. This year, 34 educators from 14 institutions (universities, colleges, community colleges, and high schools) across Colorado and Wyoming participated in the one-day conference. Each institution shared its challenges, demographics, and best practices. They then discussed major topics including: minority and female participation, how to teach introductory CS, program copying and academic integrity, and collaboration between high school and undergraduate faculty.

CoCSE is part of a larger effort to establish CSU Computer Science in the area of CS education through the conference, attending and publishing at the ACM Special Interest Group on Computer Science Education (SIGCSE), and outreach to high schools.

For more information about the CoCSE conference and our efforts in computer science education please visit: <http://www.cs.colostate.edu/cse/>

Dr. Chuck Anderson's Work Highlighted in CSU Magazine



[Dr. Chuck Anderson's](#) latest brain-computer interface research work is highlighted in an article titled, "Unlocked" in the Spring 2015 edition of CSU Magazine. Dr. Anderson is collaborating with Patricia Davies (Occupational Therapy) and William Gavin (Human Development and Family Studies) on their NSF-funded project *Removing Barriers to the Practical Use of Non-Invasive Brain-Computer Interfaces*. Their goal is to help those with locked-in syndrome or other limitations communicate with the outside world.

[Read the full CSU Magazine article here.](#)

CSU Magazine is published 4 times annually. Its mission is to reflect the university's teaching, research, and outreach goals and to create goodwill with CSU alumni and friends.

Awad Younis Receives 2014-2015 Anita Read Graduate Award



Congratulations to Awad Younis, who has received the 2014-2015 Anita Read Graduate Award. This award is given each year to a graduate student in Computer Science with demonstrated dedication to education and excellence in teaching. The recipient is selected by the department faculty. To view a list of past recipients, please visit our webpage on [Scholarships and Awards](#).

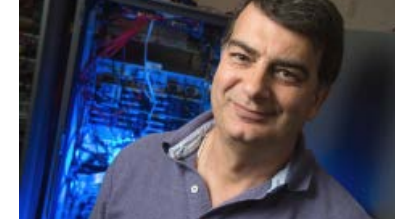
Department Announces 2015 Scholarship and Fellowship Recipients

Congratulations to all our 2015 scholarship and fellowship winners! The department gives several merit-based awards to students. This year's recipients are:

- Thomas J. Heidenfelder Scholarship:** Melinda Ryan
- Patricia R. Mohilner Memorial Scholarship:** David Schud
- James Sites and Elaine Regelson Undergraduate Research Scholarship:** Chancey Dunn
- The Steven Boyd, Jr. Scholarship:** Barajidi Boralo and Timothy Chesson
- The Frances E. Allen Scholarship in Computer Science:** Lauren Bay
- The Evolutionary Computation and Artificial Intelligence Graduate Fellowship:** Elliott Forney

To read about our scholarships and view the list of past recipients, please visit our [Scholarships and Awards page](#).

Dr. Christos Papadopoulos's Work Highlighted in the Coloradoan



A team led by Christos Papadopoulos has been funded by the National Science Foundation to explore new Internet architectures for the future. Their work is highlighted in a recent Coloradoan article titled, "Building a New Internet for the New Millennium." [Visit Dr. Papadopoulos's webpage](#) to learn more about his work in networks and security.

[Read the full Coloradoan article here.](#)

[Read the full article on CSU SOURCE here.](#)

Dr. Chris Wilcox and Sarah Morrison-Smith Win College of Natural Sciences Teaching and Mentoring Awards

Congratulations to [Dr. Chris Wilcox](#) and [Sarah Morrison-Smith](#) on winning 2015 College of Natural Sciences teaching and mentoring awards!



Chris Wilcox
Faculty Excellence in Undergraduate Teaching



Sarah Morrison-Smith
Graduate Student Excellence in Undergraduate Research Mentoring

Dr. Wilcox is a Special Assistant Professor focusing on computer science education, and Sarah Morrison-Smith is a graduate research assistant pursuing research in human-computer interaction with Dr. Jaime Ruiz. The College of Natural Sciences annually recognizes superior teachers and mentors in the college by giving teaching and mentoring awards in several categories. The awards are highly competitive. Nominations are submitted by the college's eight departments and include letters of nomination and supporting documentation. Winners are then selected by the college's Awards Committee. Recipients receive a plaque and monetary award and were honored this year at a ceremony and reception on April 24th.

Researchers Awarded \$2.9M NSF Grant to Help Transform STEM Graduate Education



[Dr. Asa Ben-Hur](#), Dr. Thomas Wei Chen (Electrical and Computer Engineering), and Dr. Carol J. Wilusz (Microbiology, Immunology and Pathology) have been awarded a \$2.9M grant from the National Science Foundation for their project, *NRT-DESE: Generating, Analyzing, and Understanding Sensory and Sequencing Information - A Trans-Disciplinary Graduate Training Program in Biosensing and Computational Biology*. The interdisciplinary research team will create a graduate training program that will equip students with the tools to extract meaning from large biological datasets. Trainees will learn to handle the new computational, statistical, mathematical, and engineering challenges that biologists, computer scientists, and engineers are unable to overcome alone.

As part of this program, faculty across engineering, life sciences, computer science, mathematics, and statistics will develop a flexible, customizable collection of training modules, to create a training experience personalized for each student regardless of their background. These modules will help trainees develop the skills and tools to process, analyze, visualize, and understand large datasets from biosensing, next generation DNA sequencing and other biological experiments. The program awards eight fellowships a year to support students in this interdisciplinary training.

Dr. Ben-Hur received the 2014 College of Natural Sciences award for Faculty Excellence in Graduate Education & Mentoring, and is a winner (with [Dr. Christina Boucher](#)) of the 2012-2013 CSU Provost Course Development Competition.

[Read the CSU SOURCE article about this project here.](#)

Upsilon Pi Epsilon Inducts New Members for 2015



The department is pleased to announce the new members of Upsilon Pi Epsilon who were inducted at a ceremony on April 22. UPE is the international honor society for the computing sciences. It was founded in 1967 to recognize scholarship and professionalism and is the only international honor society for this discipline. It is officially recognized by ACM and the IEEE Computer Society. To view a list of past inductees, please visit the UPE website at: <http://www.cs.colostate.edu/upe/>. Congratulations to our new members:

- Hessah Alsaaran, Lauren Bay, Pritish Chamania, Gareth Halladay, Joshua Larison, Mark Millard, Sarah Morrison-Smith, Subhojeet Mukherjee, Elmehdi Omar, Rudra Sharma*

Elliott Forney Receives Graduate School Excellence Award at Graduate Student Showcase



Congratulations to computer science Ph.D. student [Elliott Forney](#) on his Graduate School Excellence Award at the CSU spring 2015 Graduate Student Showcase. Of 300 showcase presenters, 15 were recognized for their excellence in research, scholarship and entrepreneurship. Elliott's poster was titled: *A Modular Platform for EEG Analysis and Real-Time Brain-Computer Interfaces*. Elliott is a research assistant at the CSU Brain-Computer Interfaces Laboratory working to develop assistive technologies for people with severe motor impairments. His research interests are in machine learning, pattern analysis and data science with a focus on neural networks, time-series analysis, signal processing and the application of these technologies to problems in neuroscience, biomedical engineering and brain-computer interfaces (BCI).

[Read the recent Collegian cover story](#) about the Brain Computer-Interfaces (BCI) Laboratory.

[Learn more about the Graduate Student Showcase and see all the winners.](#)

In Memory: Professor Robert B. France (1960-2015)



Professor Robert B. France passed away on February 15 after a battle with (nonsmoker) lung cancer. Prof. France was a world-renowned researcher who co-founded the Software and Systems Modeling Journal, was named an international chair of INRIA, and was honored with the prestigious Excellence in Science and Technology Award for 2014 by the Institute of Caribbean Studies. The Robert B. France Computer Science Fellowship has been established in his name, and an on-campus Celebration of Life will be held Friday, March 27 from 6-8 p.m. in the University Club/Cherokee Park Room.

[View SOURCE Article](#)

Donations may be made to the Robert France Fellowship at: <https://advancing.colostate.edu/ROBERTFRANCEFELLOWSHIP>

Dr. Sangmi Pallickara and Interdisciplinary Research Team Awarded Catalyst for Innovative Partnerships Grant



[Dr. Sangmi Pallickara](#) is part of an interdisciplinary team of researchers that has been awarded a grant from the new Catalyst for Innovative Partnerships (CIP) program launched by the CSU Office of the Vice President for Research. The 2015 CIP recipients comprise seven teams from across CSU that will pursue innovative ways to solve complicated, global problems. Dr. Pallickara's team, the Coalition for Development and Implementation of Sensor Systems, will focus on developing integrated chemical and biological sensors and sensor networks, which are critical in prevention, monitoring, and treatment applications including infectious diseases, cancer, water, food safety and energy. The project PI is David Dandy (Chemical and Biological Engineering), and the other team members are: Ken Reardon (Chemical and Biological Engineering); Chuck Henry and Melissa Reynolds (Chemistry); Anura Jayasumana and Tom Chen (Electrical and Computer Engineering); Rick Lyons (Infectious Disease Research Center); Jennifer Mueller (Mathematics); Lori Peek (Sociology); and John Volckens (Mechanical Engineering).

Read the full article on [CSU SOURCE](#)

Department Launches ACM-W Student Chapter



The department is pleased to announce the formation of the Colorado State University ACM-W Student Chapter (CSU ACM-W). The group's faculty advisor is Dr. Indrakshi Ray. The mission of ACM-W is to support, celebrate, and advocate internationally for the full engagement of women in the computing field. The CSU chapter seeks to provide a support network for current female students in computing and to increase female student enrollment in CSU computer science. The chapter hosts a variety of activities: industry events and networking, technical sessions, hackathons, social gatherings, and outreach activities targeting high school and middle school students. Membership is open to all ACM members and nonmembers who wish to uphold the mission statement, regardless of race, creed, color, age, or gender.

Please visit the [ACM-W website](#) for information about membership, meetings, events, and more.

CSU Scholarship Application Deadline is March 1

If you are interested in any CSU scholarships, the application deadline is March 1. To be eligible, please complete the online application and submit any required essays, recommendation letters, transcripts, and/or resumes by the March 1 deadline.

[Click here](#) for more information and application links.

Congratulations Fall 2014 Graduates

The Computer Science Department congratulates the following students on the completion of their degrees in Fall 2014:

Doctor of Philosophy

Kathleen Ericson, *Robust Health Stream Processing.*

Wesley J. Lloyd, *Autonomous Management of Cost, Performance, and Resource Uncertainty for Migration of Applications to Infrastructure-as-a-Service (IaaS) Clouds.*

Zhiquan Sui, *Distributed Algorithms for the Orchestration of Stochastic Discrete Event Simulations.*

Master of Science

Navini V. Dantanarayana, Pradyumna Narayana Rao Gari, Pingamage W. Ranasinghe, Ryan A. Stern.

Master of Computer Science

Abdullah M. Algarni, Prakruthi Devaragudi, Patrick T. Flynn, Kyle B. Frampton, Scott J. Goodwyn, Pratik Guharay, Kumar, Nikhil Naole, Harish Narra, Aby Paul, Kalyan Pesala, Sidhar Reddy Shyamala, Evan R. Steinberger, Andrew J. Walters, Jeffrey T. Wangler, Russle B. Wilcox, Zhu Yang.

Bachelor of Science

Duaa S. Alhashem, Bikramjeet S. Bajwa, Andrew E. Benavides, Samuel L. Bruns, Christopher R. Cirulli, Matthew N. Clang, Ian S. Cohee, Daniel P. Elliott, Alexander G. Fathman, Matthew B. Frahy, Colton J. Frazier, Nathaniel L. Gillard, Nicholas R. Heim, Zaccary O. Helfer, Eric S. Helms, Michael J. Hoppal, Adriane J. Huber, Sean P. Maher, Tanner R. Moore, Bryce O. Myers, Yoshiya D. Okayasu, Anne S. Ross, Zachary D. Schrag, Nathan W. Sharp, James M. Thornton, Jonathan L. Todd, Stephen A. Zapp.