



The 6th CCSC Southwestern Region Conference

April 5-6, 2013 • San Marcos, CA

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Friday, April 5, 2013	
1:30 - 2:00 pm	Registration (SBSB Lobby)
2:00 - 2:30 pm	Welcome and Introduction (SBSB 1101)
2:30 - 3:30 pm	<p>Keynote Speaker I (SBSB 1101)</p> <p>CS 2013 and the Concept of Course Exemplars: Grinnell's Introductory Sequence <i>Henry M. Walker</i> <i>Grinnell College</i></p>
3:30 - 5:00 pm	<p>Paper Session I (SBSB 1101) Chair: Megan Thomas</p> <p>Computer Science I with Flare <i>James Palmer, Northern Arizona University</i></p> <p>Education Appropriate for Game Programmers <i>Penn Wu, Cypress College</i></p> <p>Engaging Hispanic/Latino Youth in CS <i>Margaret Yau, Crafton Hills College</i></p>
5:00 - 5:15 pm	Break (SBSB Lobby & Courtyard)
5:15 - 6:15 pm	<p>Tutorial Session I (SBSB 1101)</p> <p>Structuring Programming Labs to Support an Equitable Classroom Environment <i>Niral Shah, UC Berkeley</i> <i>Colleen Lewis, Harvey Mudd College</i></p>
6:15 - 6:30 pm	Break (SBSB Lobby & Courtyard)
6:30 - 8:30 pm	<p>Dinner & Keynote Speaker II (Grand Salon at Clarke Fieldhouse)</p> <p>Why the Flip Should I Flip My Classroom: Results on the Use of Peer Instruction in Computing Courses <i>Beth Simon</i> <i>UC San Diego</i></p>

Saturday, April 6, 2013			
8:00 - 8:30am	Breakfast & Registration (SBSB Lobby)		
8:30 - 9:45am	<p align="center">Panel Session (SBSB 1101)</p> <p align="center">Flavors of Active Learning in CS Classrooms <i>Colleen Lewis, Harvey Mudd College</i> <i>Michael Clancey, UC Berkeley</i> <i>Cynthia Bailey Lee, UC San Diego</i> <i>Melissa O'Neill, Harvey Mudd College</i> <i>Niral Shah, UC Berkeley</i> <i>Ben Wiedermann, Harvey Mudd College</i></p>		
9:45-10:00am	Break (SBSB Lobby & Courtyard)		
10:00- 11:30 am	<p align="center">Papers Session II (SBSB 1101) Chair: Henry Walker</p> <p align="center">Pedagogical Example of a Stretched Password-Based Key Derivation Function <i>Porter Coggins, University of Great Falls</i></p> <p align="center">Adoption of a Three-Part Approach in a Discrete Math Course <i>Inna V. Pivkina, New Mexico State University</i></p> <p align="center">Expert Code Review and Mastery Learning in a Software Development Course <i>Sophie Engle, Sami Rollins, University of San Francisco</i></p>		
11:30-1:00pm	Lunch & Student Posters (SBSB Lobby & Courtyard)		
1:00 - 2:00pm	<p align="center">Keynote Speaker III (SBSB 1101)</p> <p align="center">Importance of Peer Mentoring of Faculty <i>Abdou Yousef</i> <i>George Washington University</i></p>		
2:00 - 3:00pm	<p align="center">Paper Session III (SBSB 1101) Chairman: Stephanie August</p> <p align="center">Using an Instructor Authored Visual Simulation Framework in a CS 3 Course <i>G. Michael Barnes, CSU Northridge</i></p> <p align="center">Software Complexity Measurement Using Multiple Criteria <i>Bhaskar Raj Sinha, Pradip Dey, Mohammad Amin,</i> <i>Hassan Badkoobehi, National University</i></p>		
3:00 - 3:15pm	Break (SBSB Lobby & Courtyard)		
3:15 - 4:15pm	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> <p>Tutorial Session II (SBSB 1101)</p> <p>DeterLab Testbed for Cybersecurity Research and Education <i>Jelena Mirkovic, USC/ISI</i></p> </td> <td style="width: 50%; text-align: center;"> <p>Tutorial Session III (SBSB 2107)</p> <p>A BeanGrinder tutorial <i>James Palmer,</i> <i>Northern Arizona University</i></p> </td> </tr> </table>	<p>Tutorial Session II (SBSB 1101)</p> <p>DeterLab Testbed for Cybersecurity Research and Education <i>Jelena Mirkovic, USC/ISI</i></p>	<p>Tutorial Session III (SBSB 2107)</p> <p>A BeanGrinder tutorial <i>James Palmer,</i> <i>Northern Arizona University</i></p>
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4:15 - 4:30 pm	Break (SBSB Lobby & Courtyard)		
4:30 - 5:30pm	<p align="center">Keynote Presentation IV (SBSB 1101)</p> <p align="center">Become Successful with NSF Funding Opportunities <i>Guy-Alain Amoussou</i> <i>National Science Foundation</i></p>		
5:30 - 6:00pm	<p align="center">CCSC:SW2014 Officer Elections, Student Poster Awards, Concluding Remarks (SBSB 1101)</p>		



Keynote Speakers Abstracts

CS 2013 and the Concept of Course Exemplars: Grinnell's Introductory Sequence

Henry M. Walker, Grinnell College
April 5, 2013 (2:30 - 3:30pm)
SBSB 1101

For several years, an ACM/IEEE Task Force has been hard at work developing and refining CS 2013, the new curricular recommendations for undergraduate computer science. As part of this effort, the Task Force has decided to identify existing courses as sample exemplars of how various topics (general Knowledge Areas and detailed Knowledge Units) might fit together in courses. This approach provides a different perspective from the past, in which curricular recommendations included hypothetical courses rather than specific ones. The first part of this talk will discuss this general approach of course exemplars within CS 2013.

Why the Flip should I Flip My Classroom: Results on the use of Peer Instruction in Computing Courses

Beth Simon
Director of the Center for Teaching Development
University of California, San Diego
April 5, 2013 (6:30 - 7:30pm)
Grand Salon at Clarke Fieldhouse

Get N people in a room and you'll get at least $O(N)$ definitions of a flipped classroom. You shouldn't flip your class because all the "cool kids" are doing it. But, you should flip it because of the large amount of research-based evidence showing increased learning gains. In this talk, we'll look at a particular approach to "flipping" a classroom -- Peer Instruction -- and how it has been implemented in both large and small classrooms at UCSD, USD, and SDSU. We'll show studies indicating adoption of Peer Instruction can reduce course fail rates by half, showing statistically significantly higher final exam scores (compared to a similar lecture course) and discuss how UCSD has increased retention in the major 30% by adopting a trio of best practices including Peer Instruction, pair programming, and media computation.



Keynote Speakers Abstracts (Cont'd)

Importance of Peer Mentoring of Faculty

Abdou Youssef

Chairman of the Department of Computer Science

George Washington University

April 6, 2013 (1:00 - 2:00pm)

SBSB 1101

Many faculty members have started their academic careers in a sink-or-swim environment with little mentoring and guidance from senior colleagues or support structures. Despite the hardships and rocky starts, and often through trials and errors, many of us managed to survive and thrive. That was possible in earlier days, but the intensifying and ever increasing demands on new faculty, both in research, especially sponsored research, and in the classroom, have made it nearly impossible for a new faculty member to launch without a proper mentoring and support structure. In this talk, we address the modern challenges facing junior faculty, and present mentoring ideas and systems to help address those challenges. In particular, we identify the various areas where new faculty members need help, how best to provide it, and available resources that departments, department heads/chairs, and senior faculty can use for effective mentoring and faculty development.

Become Successful with NSF Funding Opportunities

Guy-Alain Amoussou

National Science Foundation

April 6, 2013 (4:30 - 5:30pm)

SBSB 1101

This presentation focuses on the National Science Foundation (NSF) grant proposal review process to empower you to write successful proposals. Via close examination of the review process, you will gain an understanding of how to write good reviews and how to improve your own proposal writing skills. You will also learn about some existing funding opportunities. The topics covered include: the proposal review process from submission to award or decline; elements of a good review; NSF merit criteria (intellectual merit and broader impacts); elements of good proposals; the format of the typical review panel process; how to volunteer to review; funding opportunities.