WEDNESDAY 8:30 AM - 5:00 PM
Pre-Symposium Events (room: TBA in Convention Center)

WEDNESDAY 7:00 PM - 10:00 PM
Workshops

Workshop #101: CReST-Security Knitting Kit: Ready to Use Teaching Resources to Embed Security Topics into Upper Division CS Courses (room: L1)
Ambareen Siraj, Tennessee Tech University
Sheikh Ghafoor, Tennessee Tech University

Workshop #102: Making Music with Computers: Creative Programming in Python (room: L2-L3)
Bill Manaris, College of Charleston
Tobias Kohn, ETH Zürich

Workshop #103: A Web-Based IDE for Teaching with Any Language (room: L5-L6)
Dan Armendariz, Harvard University
David Malan, Harvard University
Nikolai Onken, Cloud9

Workshop #104: High Yield in the Short Term: Planning Strategically to Get Women into your Major (room: L8)
Lecia Barker, University of Texas at Austin
Leisa Thompson, University of Virginia

Workshop #105: Guiding Students to Discover CS Concepts and Develop Process Skills using POGIL (room: L9)
Clifton Kussmaul, Muhlenberg College
Helen Hu, Westminster College
Chris Mayfield, James Madison University

Workshop #106: Engage, Energize and Empower Your Students with Team-Based Learning (room: L10)
Lenore Horowitz, University at Albany
George Berg, University at Albany
Kimberly Van Orman, University at Albany

Workshop #107: Teaching Parallel Computing Concepts with OpenMP (room: L11-L12)
Joel Adams, Calvin College
Richard Brown, St. Olaf College
Elizabeth Shoop, Macalester College
Workshop #108: Using OpenDSA eTextbooks in Your Class (room: L13-L14)
  Clifford A. Shaffer, Virginia Tech
  Thomas Naps, University of Wisconsin–Oshkosh
  Susan Rodger, Duke University

Workshop #109: Reading and Writing like Computer Scientists: How to Promote Critical Thinking and Student Engagement (room: River Bluff)
  Mark Hoffman, Quinnipiac University
  Jerod Weinman, Grinnell College

Workshop #110: Lego-based Case Studies for Teaching Software Engineering (room: Sultana)
  Stan Kurkovsky, Central Connecticut State University

Workshop #111: Peer Instruction in Computing: a Focus on Student Learning (room: Mississippi)
  Daniel Zingaro, University of Toronto Mississauga
  Leo Porter, University of California, San Diego
  Quintin Cutts, University of Glasgow
  John Glick, University of San Diego
  Joe Hummel, University of Illinois at Chicago
  Cynthia Lee, Stanford University
  Jaime Spacco, Knox College

Workshop #112: How to launch a STARS Computing Corps cohort to improve retention and broaden participation in computing (room: Cotton Row)
  Jamie Payton, University of North Carolina at Charlotte
  Tiffany Barnes, North Carolina State University

THURSDAY 8:30 AM - 10:00 AM
Plenary Session - Keynote by John Sweller, University of New South Wales

THURSDAY 10:00 AM - 10:45 AM
Break & Exhibits

THURSDAY 10:45 AM - 12:00 PM
Papers: Data Structures (room: L11-L12)

10:45 AM  Paper vs. Computer-based Exams: A Study of Errors in Recursive Binary Tree Algorithms
  Scott Grissom, Grand Valley State University
  Laurie Murphy, Pacific Lutheran University
  Renée McCauley, College of Charleston
  Sue Fitzgerald, Metropolitan State University
11:10 AM  Stay on These Roads: Potential Factors Indicating Students’ Performance in a CS2 Course  
Holger Danielsiek, Westfälische Wilhelms-Universität Münster  
Jan Vahrenhold, Westfälische Wilhelms-Universität Münster

11:35 AM  BRIDGES: A System to Enable Creation of Engaging Data Structures Assignments with Real-World Data and Visualizations  
David Burlinson, The University of North Carolina at Charlotte  
Mihai Mehedint, The University of North Carolina at Charlotte  
Chris Grafer, The University of North Carolina at Charlotte  
Kalpathi Subramanian, The University of North Carolina at Charlotte  
Jamie Payton, The University of North Carolina at Charlotte  
Michael Youngblood, Xerox A PARC company  
Robert Kosara, Tableau Software  
Paula Goolkasian, The University of North Carolina at Charlotte

Papers: Computational Thinking (room: L13-L14)  Thu 10:45 AM - 12:00 PM

10:45 AM  Computational Thinking as Liberal Studies  
Dave Mason, Ryerson University  
Irfan Khan, Ryerson University  
Vadim Farafontov, Ryerson University

11:10 AM  A Study on the Impact of Multidisciplinary Collaboration on Computational Thinking  
S. Monisha Pulimood, The College of New Jersey  
Kim Pearson, The College of New Jersey  
Diane Bates, The College of New Jersey

11:35 AM  Investigating Differences in Wiki-based Collaborative Activities between Student Engagement Profiles in CS1  
Adam Eck, University of Nebraska-Lincoln  
Leen-Kiat Soh, University of Nebraska-Lincoln  
Duane Shell, University of Nebraska-Lincoln

Papers: Research on Learning (room: L5-L6)  Thu 10:45 AM - 12:00 PM

10:45 AM  Subgoals Help Students Solve Parsons Problems  
Briana Morrison, Georgia Institute of Technology  
Lauren Margulieux, Georgia Institute of Technology  
Barbara Ericson, Georgia Institute of Technology  
Mark Guzdial, Georgia Institute of Technology

11:10 AM  An Examination of Layers of Quizzing in Two Computer Systems Courses  
Cindy Norris, Appalachian State University
11:35 AM  As CS Enrollments Grow, Are We Attracting Weaker Students?: A Statistical Analysis of Student Performance in Introductory Programming Courses Over Time
Mehran Sahami, Stanford University
Chris Piech, Stanford University

Papers: Professional Development (room: L2-L3)  Thu 10:45 AM - 12:00 PM

10:45 AM  TEALS: Teacher Professional Development Using Industry Volunteers
Nathaniel Granor, CSNYC/TEALS
Leigh Ann DeLyser, CSNYC
Kevin Wang, Microsoft/TEALS

11:10 AM  Implementation and Outcomes of a Three-Pronged Approach to Professional Development for CS Principles
Chrystalla Mouza, University of Delaware
Lori Pollock, University of Delaware
Kathleen Pusecker, University of Delaware
Kevin Guidry, University of Delaware
Ching-Yi Yeh, University of Delaware
James Atlas, University of Delaware
Terry Harvey, University of Delaware

11:35 AM  Deploying Exploring Computer Science Statewide
Helen Hu, Westminster College
Cecily Heiner, Southern Utah University
Jay McCarthy, University of Massachusetts Lowell

Panel (room: Cotton Row)  Thu 10:45 AM - 12:00 PM
How to Use Open Source Software in Education
Judith Bishop, Microsoft Research
Carlos Jensen, Oregon State University
Walt Scacchi, University of California
Arfon Smith, GitHub Inc

Panel (room: Steamboat)  Thu 10:45 AM - 12:00 PM
Rediscovering the Passion, Beauty, Joy, and Awe: Making Computing Fun Again, part 8
Daniel Garcia, UC Berkeley
Josh Caldwell, code.org
Pamela Fox, Khan Academy
Jeremy Keeshin, CodeHS
Special Session (room: Mississippi)  Thu 10:45 AM - 12:00 PM
The Micro-Cluster Showcase: 7 Inexpensive Beowulf Clusters for Teaching PDC

Joel Adams, Calvin College
Jacob Caswell, St. Olaf College
Suzanne Matthews, U.S. Military Academy
Charles Peck, Earlham College
Elizabeth Shoop, Macalester College
David Toth, Centre College
James Wolfer, Indiana University, South Bend

THURSDAY 12:00 PM - 1:45 PM
LUNCH: FirstTimer's - SIGCSE Award for Lifetime Service to the Computer Science Education Community

THURSDAY 1:45 PM - 3:00 PM

Papers: Pair Programming (room: L11-L12)  Thu 1:45 PM - 3:00 PM

1:45 PM  Three Years of Student Pair Programming—Action Research Insights And Outcomes
Ian McChesney, Ulster University

2:10 PM  Observations of Pair Programming: Variations in Collaboration Across Demographic Groups
Omar Ruvalcaba, California State University, Northridge
Linda Werner, University of California, Santa Cruz
Jill Denner, Education, Training, and Research

2:35 PM  Teaching Mobile Development with Pair Programming
Mohammed Seyam, Virginia Tech
Scott McCrickard, Virginia Tech

Papers: Engagement and Diversity (room: L13-L14)  Thu 1:45 PM - 3:00 PM

1:45 PM  Applying the Communal Goal Congruity Perspective to Enhance Diversity and Inclusion in Undergraduate Computing Degrees
Bo Brinkman, Miami University
Amanda Diekman, Miami University

2:10 PM  Enhancing Engagement by Balancing Rigor and Relevance
Sarnath Ramnath, St Cloud state U
John Hoover, St Cloud state U
2:35 PM  Understanding How Research Experiences for Undergraduate Students May Foster Diversity In The Professorate
Burcin Tamer, Computing Research Association
Jane Stout, Computing Research Association

Papers: CS Ed Research 1 (room: L5-L6)  Thu 1:45 PM - 3:00 PM

1:45 PM  A (Updated) Review of Empiricism at the SIGCSE Technical Symposium
Ahmed Al-Zubidy, University of Alabama
Jeffrey Carver, University of Alabama
Sarah Heckman, North Carolina State University
Mark Sheriff, University of Virginia

2:10 PM  An Approach to Enhancing Compiler Error Messages That Seems to Be Effective
Brett Becker, University College Dublin

2:35 PM  Exploration of Students' Keystroke Latencies in an Introductory Programming Course
Juho Leinonen, University of Helsinki
Krista Longi, University of Helsinki
Arto Vihavainen, University of Helsinki

Papers: CS0 (room: L2-L3)  Thu 1:45 PM - 3:00 PM

1:45 PM  CS0 for Computer Science Majors at Ohio University
Cindy Marling, Ohio University
David Juedes, Ohio University

2:10 PM  Security Injections 2.0: Increasing Ability to Apply Secure Coding Knowledge using Segmented and Interactive Modules in CS0
Sagar Raina, Towson University
Blair Taylor, Towson University
Siddharth Kaza, Towson University

2:35 PM  Combining “Big Data” and “Thick Data” Analyses for Understanding Youth Learning Trajectories in a Summer Coding Camp
Deborah Fields, Utah State University
Lisa Quirke, University of Toronto
Janell Amely, Utah State University
<table>
<thead>
<tr>
<th><strong>Special Session (room: Cotton Row)</strong></th>
<th>Thu 1:45 PM - 3:00 PM</th>
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<tbody>
<tr>
<td>Training Teachers to Integrate Computational Thinking into K-12 Teaching</td>
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<tr>
<td><em>Rania Hodhod, Columbus State University</em></td>
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<td><em>Shamim Khan, Columbus State University</em></td>
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<td><em>Yesem Kurt-Peker, Columbus State University</em></td>
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<td><em>Lydia Ray, Columbus State University</em></td>
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<tr>
<th><strong>Special Session (room: Steamboat)</strong></th>
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<tbody>
<tr>
<td>Demystifying Computing with Magic, part III</td>
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<tr>
<td><em>Dan Garcia, University of California, Berkeley</em></td>
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<td><em>David Ginat, Tel-Aviv University</em></td>
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<tr>
<th><strong>Panel (room: Mississippi)</strong></th>
<th>Thu 1:45 PM - 3:00 PM</th>
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<tr>
<td>Uncommon Teaching Languages</td>
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<td><em>Mark Lewis, Trinity University</em></td>
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<td><em>Douglas Blank, Bryn Mawr College</em></td>
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<td><em>Kim Bruce, Pomona College</em></td>
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<td><em>Peter-Michael Osera, Grinnell College</em></td>
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**THURSDAY 3:00 PM - 3:45 PM**

**Break & Exhibits**

**THURSDAY 3:45 PM - 5:00 PM**

<table>
<thead>
<tr>
<th><strong>Papers: Big Data (room: L11-L12)</strong></th>
<th>Thu 3:45 PM - 5:00 PM</th>
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<tbody>
<tr>
<td>3:45 PM</td>
<td>VisMap: Exploratory Visualization Support for Introductory Data Science and Visualization</td>
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<td><em>Dugald Hutchings, Elon University</em></td>
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<td><em>Megan Squire, Elon University</em></td>
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<td>4:10 PM</td>
<td>A Practical and Sustainable Model for Learning and Teaching Data Science</td>
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<td><em>Bina Ramamurthy, University at Buffalo</em></td>
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<tr>
<td>4:35 PM</td>
<td>Teaching Big Data with a Virtual Cluster</td>
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<td><em>Joshua Eckroth, Stetson University</em></td>
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<tr>
<th><strong>Papers: Teaching with Teams (room: L13-L14)</strong></th>
<th>Thu 3:45 PM - 5:00 PM</th>
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<tr>
<td>3:45 PM</td>
<td>Evaluating Student Teams: Do Educators Know What Students Think?</td>
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<td><em>Anya Tafliovich, University of Toronto Scarborough</em></td>
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<td><em>Andrew Petersen, University of Toronto Mississauga</em></td>
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<td><em>Jennifer Campbell, University of Toronto</em></td>
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### Preliminary Program

#### SIGCSE 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speakers</th>
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</table>
| 4:10 PM| Teaching Global Software Engineering by Simulating a Global Project in the Classroom<br>
Yang Li, Technische Universität München<br>
Stephan Krusche, Technische Universität München<br>
Christian Lescher, Technische Universität München<br>
Bernd Bruegge, Technische Universität München |                                                                                       |
| 4:35 PM| Exploring Lightweight Teams in a Distributed Learning Environment<br>
Stephen MacNeil, University of North Carolina at Charlotte<br>
Celine Latulipe, University of North Carolina at Charlotte<br>
Bruce Long, University of North Carolina at Charlotte<br>
Aman Yadav, Michigan State University |                                                                                       |

### Papers: Program Design (room: L5-L6)

**Thu 3:45 PM - 5:00 PM**

3:45 PM | Can Students Design Software? The Answer Is More Complex Than You Think<br>
Chenglie Hu, Carroll University |

4:10 PM | On the Interplay Between Bottom-Up and Datatype-Driven Program Design<br>
Francisco Enrique Vicente Castro, Worcester Polytechnic Institute<br>
Kathi Fisler, Worcester Polytechnic Institute |

4:35 PM | Modernizing Plan-Composition Studies<br>
Kathi Fisler, Worcester Polytechnic Institute<br>
Shriram Krishnamurthi, Brown University<br>
Janet Siegmund, Universität Passau |

### Papers: Scratch (room: L2-L3)

**Thu 3:45 PM - 5:00 PM**

3:45 PM | Initialization in Scratch: Seeking Knowledge Transfer<br>
Diana Franklin, University of Chicago<br>
Charlotte Hill, University of California, Santa Barbara<br>
Hilary Dwyer, University of California, Santa Barbara<br>
Alexandria Hansen, University of California, Santa Barbara<br>
Ashley Iveland, University of California, Santa Barbara |

4:10 PM | ITCH: Individual Testing Of Computer Homework For Scratch Assignments<br>
David Johnson, University of Utah |

4:35 PM | Multi-Track Programming Competitions with Scratch<br>
Jason Arnold, Marquette University<br>
Heather Bort, Marquette University<br>
Ryan Naugle, Marquette University<br>
Casey O’Hare, Marquette University<br>
Dennis Brylow, Marquette University |
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<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td><strong>Special Session (room: Cotton Row)</strong></td>
<td>Thu 3:45 PM - 5:00 PM</td>
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<tr>
<td>Special Session: ACM Joint Task Force on Cyber Education</td>
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<tr>
<td><em>Diana Burley, George Washington University</em></td>
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<td><em>Matt Bishop, University of California, Davis</em></td>
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<td><em>Elizabeth Hawthorne, Union County College</em></td>
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<td><em>Siddharth Kaza, Towson University</em></td>
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<td><em>Lynn Futcher, Nelson Mandela Metropolitan University</em></td>
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<tr>
<td><strong>Panel (room: Steamboat)</strong></td>
<td>Thu 3:45 PM - 5:00 PM</td>
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<tr>
<td><strong>Technology We Can't Live Without!, revisited</strong></td>
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<td><em>Daniel Garcia, UC Berkeley</em></td>
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<td><em>Leslie Aaronson, Forshay Learning Center</em></td>
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<td><em>Shawn Kenner, Sharon High School</em></td>
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<td><em>Colleen Lewis, Harvey Mudd College</em></td>
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<td><em>Susan Rodger, Duke University</em></td>
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<tr>
<td><strong>Panel (room: Mississippi)</strong></td>
<td>Thu 3:45 PM - 5:00 PM</td>
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<td>igniteCS: Addressing Undergraduate CS Retention</td>
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<td><em>Erin Cannon, Google</em></td>
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<td><em>Priya Chawla, University of Cincinnati</em></td>
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<td><em>Katherine Lo, University of California, Irvine</em></td>
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<tr>
<td><em>Haley Adams, Rhodes College</em></td>
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<tr>
<td><strong>Special Session (room: L10)</strong></td>
<td>Thu 3:45 PM - 5:00 PM</td>
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<tr>
<td>Instructional Design is to Teaching as Software Engineering is to Programming</td>
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<td><em>Austin Bart, Virginia Tech</em></td>
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<td><em>Clifford Shaffer, Virginia Tech</em></td>
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<td><strong>BOFS (room: TBA in Marriott Hotel)</strong></td>
<td>5:30 PM - 6:20 PM</td>
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<td><strong>BOFS (room: TBA in Marriott Hotel)</strong></td>
<td>6:30 PM - 7:30 PM</td>
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<td><strong>THURSDAY 7:30 PM - 8:30 PM</strong></td>
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<tr>
<td><strong>Reception (room: Ballroom A)</strong></td>
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<td><strong>FRIDAY 8:30 AM - 10:00 AM</strong></td>
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<td><strong>Plenary Session - SIGCSE Award for Outstanding Contribution to Computer Science Education</strong></td>
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</table>
FRIDAY 10:00 AM - 10:45 AM
Break & Exhibits

FRIDAY 10:45 AM - 12:00 PM

Papers: Peer Techniques (room: L11-L12)  Fri 10:45 AM - 12:00 PM

10:45 AM   The Sweep: Essential Examples for In-Flow Peer Review
            Joe Politz, Brown University
            Joseph Collard, UMass Amherst
            Arjun Guha, UMass Amherst
            Kathi Fisler, Worcester Polytechnic Institute
            Shriram Krishnamurthi, Brown University

11:10 AM   The Effects of Peer- and Self-assessment on the Assessors
            Joonsuk Park, Cornell University
            Kimberley Williams, Cornell University

11:35 AM   Differences in the Learning Principles Dominating Student-Student vs. Student-Instructor Interactions while Working on Programming Tasks
            Alessio Gaspar, University of South Florida
            Joni Torsella, University of Cincinnati
            Nora Honken, University of Cincinnati
            Sohum Sohoni, Arizona State University
            Colin Arnold, University of South Florida

Papers: Artistic Approaches (room: L13-L14)  Fri 10:45 AM - 12:00 PM

10:45 AM   Computational Art - Introducing High School Students to Computing via Art
            Zoe Wood, California Polytechnic State University
            Paul Muhl, Santa Barbara High School
            Katelyn Hicks, California Polytechnic State University

11:10 AM   The MoveLab: Developing Congruence between the Self-Concept and Computing
            Kayla DesPortes, Georgia Institute of Technology
            Monet Spells, Georgia Institute of Technology
            Betsy DiSalvo, Georgia Institute of Technology

11:35 AM   Creative Computation in High School
            Dianna Xu, Bryn Mawr College
            Aaron Cadle, Fort Worth Country Day School
            Darby Thompson, Sidwell Friends School
            Ursula Wolz, RiverSound Solutions
### Papers: Tests and Outcomes (room: L5-L6)

**Fri 10:45 AM - 12:00 PM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:45</td>
<td>Impact of Student Achievement Goals on CS1 Outcomes</td>
<td>Daniel Zingaro, University of Toronto Mississauga, Leo Porter, University of California, San Diego</td>
</tr>
<tr>
<td>11:10</td>
<td>Introducing and Evaluating Exam Wrappers in CS2</td>
<td>Michelle Craig, University of Toronto, Diane Horton, University of Toronto, Daniel Zingaro, University of Toronto Mississauga, Danny Heap, University of Toronto</td>
</tr>
<tr>
<td>11:35</td>
<td>Measuring Effects of Modality on Perceived Test Anxiety for Computer Programming Exams</td>
<td>Robert Deloatch, University of Illinois Urbana Champaign, Brian Bailey, University of Illinois Urbana Champaign, Alex Kirlik, University of Illinois Urbana Champaign</td>
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### Papers: High School Diversity (room: L2-L3)

**Fri 10:45 AM - 12:00 PM**

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<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:45</td>
<td>The role of mentoring as a way to increase girls' participation in CS</td>
<td>Jody Clarke-Midura, Utah State University, Vicki Allan, Utah State University, Kevin Close, Utah State University</td>
</tr>
<tr>
<td>11:10</td>
<td>Towards More Gender Diversity in CS through an Artificial Intelligence Summer Program for High School Girls</td>
<td>Marie Vachovsky, Stanford University, Grace Wu, Stanford University, Sorathan Chaturapruek, Stanford University, Olga Russakovskiy, Stanford University, Rick Sommer, Stanford University, Li Fei-Fei, Stanford University</td>
</tr>
<tr>
<td>11:35</td>
<td>Sisters Rise Up 4 CS: Helping Female Students Pass the Advanced Placement Computer Science A Exam</td>
<td>Barbara Ericson, Georgia Institute of Technology, Miranda Parker, Georgia Institute of Technology, Shelly Engelman, SageFox Consulting Group</td>
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**Preliminary Program**

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<tr>
<th>Session</th>
<th>Time</th>
<th>Details</th>
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| **Panel (room: Cotton Row)** | Fri 10:45 AM - 12:00 PM | Future Directions of Block-based Programming  
* Neil Brown, University of Kent  
* Jens Möning, SAP Labs  
* Anthony Bau, Phillips Exeter Academy  
* David Weintrop, Northwestern University |
| **Panel (room: Steamboat)** | Fri 10:45 AM - 12:00 PM | Why Don't Some CS0 Students Succeed? How Important Are Background, Experience, Culture, Aptitude, Habits and Attitude?  
* Daniel Garcia, University of California, Berkeley  
* Stuart Reges, University of Washington  
* Colleen Lewis, Harvey Mudd College  
* Nathan Ensmenger, Indiana University |
| **Panel (room: Mississippi)** | Fri 10:45 AM - 12:00 PM | Scrum and Agile Methods in Software Engineering Courses  
* Jennifer Campbell, University of Toronto  
* Stan Kurkovsky, Central Connecticut State University  
* Chun Wai Liew, Lafayette College  
* Anya Tafliovich, University of Toronto Scarborough |
| **Panel (room: L10)** | Fri 10:45 AM - 12:00 PM | Engaging CS Alumni from Afar  
* Christine Shannon, Centre College  
* James Kiper, Miami University  
* Samuel Rebelsky, Grinnell College  
* Janet Davis, Whitman College |
| **FRIDAY 12:00 PM - 1:45 PM** | | **LUNCH: on your own** |
| **FRIDAY 1:45 PM - 3:00 PM** | Fri 1:45 PM - 3:00 PM | Papers: Problem Solving (room: L11-L12)  
1:45 PM A Course on Programming and Problem Solving  
* Swapneel Sheth, University of Pennsylvania  
* Christian Murphy, University of Pennsylvania  
* Kenneth Ross, Columbia University  
* Dennis Shasha, New York University |
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<tr>
<th>Time</th>
<th>Title</th>
<th>Presenters</th>
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<tr>
<td>2:10 PM</td>
<td>The Influence of Problem Solving Abilities on Students' Performance on Different Assessment Tasks in CS1.</td>
<td>Alex Lishinski, Michigan State University, Aman Yadav, Michigan State University, Richard Enbody, Michigan State University</td>
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<tr>
<td>2:35 PM</td>
<td>Online CS1: Who Enrolls, Why, and How Do They Do?</td>
<td>Diane Horton, University of Toronto, Jennifer Campbell, University of Toronto, Michelle Craig, University of Toronto</td>
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</tbody>
</table>
|        | **Papers: Novel Learning Approaches (room: L13-L14)** | **Fri 1:45 PM - 3:00 PM**  
1:45 PM | Just-In-Time Learning for the Just Google It Era                | Elizabeth Boese Boese, University of Colorado - Boulder |
| 2:10 PM| Hackathons as an Informal Learning Platform                          | Arnab Nandi, The Ohio State University, Meris Mandernach, The Ohio State University |
| 2:35 PM| The Video Collaboratory as a Learning Environment                    | Vikash Singh, University of North Carolina at Charlotte, Sarah Abdellahi, University of North Carolina at Charlotte, Mary Lou Maher, University of North Carolina at Charlotte, Celine Latulipe, University of North Carolina at Charlotte |
|        | **Papers: CS Ed Research 2 (room: L5-L6)**                           | **Fri 1:45 PM - 3:00 PM**  
1:45 PM | A Multi-institutional Study of Peer Instruction in Introductory Computing | Leo Porter, University of California, San Diego, Dennis Bouvier, Southern Illinois Univ. Edwardsville, Quentin Cutts, University of Glasgow, Scott Grissom, Grand Valley State University, Cynthia Lee, Stanford University, Robert McCartney, University of Connecticut, Daniel Zingaro, University of Toronto, Mississauga, Beth Simon, University of California, San Diego |
| 2:10 PM| Development of a Concept Inventory for Computer Science Introductory Programming | Ricardo Caceffo, UNICAMP, Steven Wolfman, University of British Columbia, Kellogg Booth, University of British Columbia, Rodolfo Azevedo, UNICAMP |
2:35 PM  A data-driven analysis of informatively hard concepts in introductory programming  
  *Rudolf Wiegand, University of Central Florida*  
  *Anthony Bucci, Independent Contractor*  
  *Amruth Kumar, Ramapo College of New Jersey*  
  *Jennifer Albert, The Citadel*  
  *Alessio Gaspar, University of South Florida*

**Papers: K-8 Diversity (room: L2-L3)**  
**Fri 1:45 PM - 3:00 PM**

1:45 PM  Differentiating for Diversity: Using Universal Design for Learning in Computer Science Education  
  *Alexandria Hansen, University of California, Santa Barbara*  
  *Hilary Dwyer, Ojai Valley School, Ojai*  
  *Eric Hansen, Hope Elementary School, Santa Barbara*  
  *Danielle Harlow, University of California, Santa Barbara*  
  *Diana Franklin, University of Chicago*

2:10 PM  Empowering All Students: Closing the CS Confidence Gap with an In-School Intervention for Middle School Students  
  *Philip Buffum, North Carolina State University*  
  *Megan Frankosky, North Carolina State University*  
  *Kristy Boyer, University of Florida*  
  *Eric Wiebe, North Carolina State University*  
  *Bradford Mott, North Carolina State University*  
  *James Lester, North Carolina State University*

2:35 PM  How Early Does the CS Gender Gap Emerge? A Study of Collaborative Problem Solving in 5th Grade Computer Science  
  *Jennifer Tsan, North Carolina State University*  
  *Kristy Boyer, University of Florida*  
  *Collin Lynch, North Carolina State University*

**Special Session (room: Cotton Row)**  
**Fri 1:45 PM - 3:00 PM**

AP Computer Science and Service Learning with We.org  
  *Sandy Czajka, Riverside Brookfield High School*  
  *Lien Diaz, College Board*  
  *Crystal Furman, College Board*
### Panel (room: Steamboat)

**Booming Enrollments—Survey Data**

*Tracy Camp, Colorado School of Mines*
*Stu Zweben, The Ohio State University*
*Duncan Buell, University of South Carolina*
*Jane Stout, Computing Research Association*

**FRIDAY**

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<th>Time</th>
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<tr>
<td>1:45 PM - 3:00 PM</td>
<td>Booming Enrollments—Survey Data</td>
<td>Tracy Camp, Colorado School of Mines, Stu Zweben, The Ohio State University, Duncan Buell, University of South Carolina, Jane Stout, Computing Research Association</td>
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### Special Session (room: Mississippi)

**Updating Curricular Guidelines for Associate-Degree Computer Science Programs**

*Cara Tang, Portland Community College*
*Cindy Tucker, Bluegrass Community and Technical College*
*Elizabeth Hawthorne, Union County College*

**FRIDAY 3:00 PM - 3:45 PM**

**Break & Exhibits**

**FRIDAY 3:45 PM - 5:00 PM**

### Papers: Databases (room: L11-L12)

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<th>Time</th>
<th>Title</th>
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<tr>
<td>3:45 PM</td>
<td>SQL: From Traditional Databases to Big Data</td>
<td>Yasin N. Silva, Arizona State University, Isadora Almeida, Arizona State University, Michell Queiroz, Arizona State University</td>
</tr>
<tr>
<td>4:10 PM</td>
<td>chidb: Building a Simple Relational Database System from Scratch</td>
<td>Borja Sotomayor, University of Chicago - Department of Computer Science, Adam Shaw, University of Chicago - Department of Computer Science</td>
</tr>
<tr>
<td>4:35 PM</td>
<td>Students’ syntactic mistakes in writing seven different types of SQL queries and its application to predicting students’ success</td>
<td>Alireza Ahadi, University of Technology Sydney, Vahid Behbood, University of Technology Sydney, Julia Prior, University of Technology Sydney, Arto Vihavainen, University of Helsinki, Raymond Lister, University of Technology Sydney</td>
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### Papers: International Perspectives (room: L13-L14)
**Fri 3:45 PM - 5:00 PM**

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<tr>
<th>Time</th>
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<th>Authors</th>
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| 3:45 PM| The Performance of Female Computer Science Students across Three Caribbean Islands | Daniel Fokum, The University of the West Indies, Mona  
Daniel Coore, The University of the West Indies, Mona  
Yewande Lewis-Fokum, The University of the West Indies, Mona |
| 4:10 PM| Alice in the Middle East: An experience report from the formative phase  | Saquib Razak, Carnegie Mellon University  
Wanda Dann, Carnegie Mellon University  
Donald Slater, Carnegie Mellon University  
Huda Gedawy, Carnegie Mellon University |
| 4:35 PM| Piloting Computer Science Education Week in Mexico                    | Nora Escherle, Ph FHNW  
Silvia Ramirez, Department of Computer Science, Tecnológico de Monterrey  
Ashok Basawapatna, Dept. Mathematics, Computer & Information Science, SUNY, Old Westbury  
Carmine Maiello, School of Education, FHNW  
Yasko Endo, University of Colorado, Boulder  
Alexander Repenning, School of Education, FHNW  
Dorit Assaf, School of Education, FHNW  
Juan Flores, Department of Computer Science, Tecnológico de Monterrey |

### Papers: Software Testing (room: L5-L6)
**Fri 3:45 PM - 5:00 PM**

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<th>Time</th>
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<tr>
<td>3:45 PM</td>
<td>Testing Strategies for the Automated Grading of Student Programs</td>
<td>Chris Wilcox, Colorado State University</td>
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</table>
| 4:10 PM| A strategy to combine test-driven development and test criteria to improve learning of programming skills | Bruno Henrique Pachulski Camara, Faculdade Integrado, Federal University of Technology – Paraná  
Marco Aurélio Graciotto Silva, Federal University of Technology – Paraná |
| 4:35 PM| Tool Design and Student Testing Behavior in an Introductory Java Course | Grant Braught, Dickinson College  
James Midkiff, Dickinson College |
### Papers: CS Principles (room: L2-L3)  
** Fri 3:45 PM - 5:00 PM **

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<th>Time</th>
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<tr>
<td>3:45 PM</td>
<td>Lessons Learned from &quot;BJC&quot; CS Principles Professional Development</td>
<td>Thomas Price, NC State University&lt;br&gt;Veronica Catete, NC State University&lt;br&gt;Jenifer Sharp, NC State University&lt;br&gt;Tiffany Barnes, NC State University&lt;br&gt;Dan Garcia, UC Berkeley</td>
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<tr>
<td>4:10 PM</td>
<td>An Experience Report Assessing A Professional Development MOOC For CS Principles</td>
<td>Jeff Gray, The University of Alabama&lt;br&gt;Jonathan Corley, The University of Alabama&lt;br&gt;Brian Eddy, University of West Florida</td>
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<tr>
<td>4:35 PM</td>
<td>Two Teachers, Two Perspectives on CS Principles</td>
<td>Jean Griffin, Temple University&lt;br&gt;Tammy Pirmann, Gwynedd Mercy University&lt;br&gt;Brent Gray, Carver Engineering and Science High School</td>
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### Papers: Beale St. Sampler (room: Cotton Row)  
** Fri 3:45 PM - 5:00 PM **

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<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>3:45 PM</td>
<td>Seeing Is Believing: Helping Students Visualize Multithreaded Behavior</td>
<td>Joel Adams, Calvin College&lt;br&gt;Patrick Crain, Calvin College&lt;br&gt;Christopher Dilley, Calvin College&lt;br&gt;Serita Nelesen, Calvin College&lt;br&gt;Javin Unger, Calvin College&lt;br&gt;Mark Vander Stel, Calvin College</td>
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<tr>
<td>4:10 PM</td>
<td>A Survey of Ethical Agreements in Information Security Courses</td>
<td>Benedict Chukuka, University of Calgary&lt;br&gt;Michael Locasto, University of Calgary</td>
</tr>
<tr>
<td>4:35 PM</td>
<td>Assessing the Tier-1 Core Learning Outcomes of CS2013</td>
<td>James McGuffee, Northern Kentucky University&lt;br&gt;E, Palmer, MacMurray College&lt;br&gt;Indira Guzman, Trident University International</td>
</tr>
</tbody>
</table>
Panel (room: Steamboat) Fri 3:45 PM - 5:00 PM
CS10K Teachers by 2017? Try CS1K+ students NOW! Coping with the Largest CS1 Courses in History
- Daniel Garcia, UC Berkeley
- Jennifer Campbell, University of Toronto
- John DeNero, UC Berkeley
- Mary Lou Dorf, University of Michigan
- Stuart Reges, University of Washington

Panel (room: Mississippi) Fri 3:45 PM - 5:00 PM
Panel: Engage in Reasoning with Tools
- Greg Kulczycki, Virginia Tech
- Murali Sitaraman, Clemson University
- Nigamanth Sridhar, Cleveland State University
- Bruce Weide, The Ohio State University

<table>
<thead>
<tr>
<th>Workshops</th>
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Workshop #301: A Hands-On Introduction to the Internet of Things (room: L1)
- William Siever, Western Illinois University
- Michael Rogers, Northwest Missouri State University
- Marshall Strouse, Engineered Audio, LLC

Workshop #302: Introducing Secure Coding in CS0, CS1, and CS2 (room: L2-L3)
- Blair Taylor, Towson University
- Siddharth Kaza, Towson University

Workshop #303: Building on Blocks: Getting Started With Frames in Greenfoot 3 (room: L5-L6)
- Amjad Altadmri, University of Kent
- Neil Brown, University of Kent

Workshop #304: Rubricking like a boss: writing and using rubrics for faster, fairer grading of student programs (room: L8)
- Don Blaheta, Longwood University
- Adrienne Decker, Rochester Institute of Technology

Workshop #305: Permeating Data Visualization in CS Courses (room: L9)
- Aaron Cadle, Fort Worth Country Day School
- Ira Greenberg, Southern Methodist University
- Deepak Kumar, Bryn Mawr College
- Dianna Xu, Bryn Mawr College
- Ursula Wolz, RiverSound Solutions
Workshop #306: Learn CS1/2 by Playing and Building Commercial Grade Casual Games: No Background Required (room: L10)
Kelvin Sung, University of Washington Bothell
Rob Nash, University of Washington Bothell
Jason Pace, University of Washington Bothell

Workshop #307: CSinParallel: Using WebMapReduce to teach parallel computing concepts, hands-on (room: L11-L12)
Richard Brown Brown, St. Olaf College
Elizabeth Shoop, Macalester College
Joel Adams, Calvin College

Workshop #308: MUzECS: Block-based Arduino Programming for Exploring Computer Science (room: L13-L14)
Dennis Brylow, Marquette University

Workshop #309: How to Plan and Run Summer Computing Camps - Logistics (room: River Bluff)
Barbara Ericson, Georgia Institute of Technology
Kristine Nagel, Georgia Gwinnett College
Nannette Napier, Georgia Gwinnett College
Krishnendu Roy, Valdosta State University

Workshop #310: K-12 Teacher Support for Computer Science Principles: An Introduction to the UTeach Course, Thriving in Our Digital World: AP (room: Sultana)
Jeff Mickel, The UTeach Institute, The University of Texas at Austin
Alicia Beth, The UTeach Institute, The University of Texas at Austin

Workshop #311: Conducting educational research in the computer science classroom: Choosing the appropriate research design to address your research questions. (room: Mississippi)
Aman Yadav, Michigan State University

Workshop #312: AP CS Principles and The Beauty and Joy of Computing Curriculum (room: Cotton Row)
Daniel Garcia, UC Berkeley
Tiffany Barnes, NC State
Michael Ball, UC Berkeley
Emil Biga, Millard North High School
Josh Paley, Gunn High School
Marnie Hill, J. H. Rose High School
Nathan Mattix, Piedmont High School
Parisa Safa, Urban School of San Francisco
Sean Morris, Albany High School
**SATURDAY 8:45 AM - 10:00 AM**

### Papers: Computer Engineering (room: L11-L12)

**8:45 AM**  
Undergraduate Assembly Language Instruction Sweetened with the Raspberry Pi  
*Jalal Kawash, University of Calgary*  
*Andrew Kuipers, University of Calgary*  
*Leonard Manzara, University of Calgary*  
*Robert Collier, Carleton University*

**9:10 AM**  
Droning On: Reflections on Integrating UAV Technology into a Computer Engineering Design Laboratory  
*Meriel Huggard, Trinity College Dublin*  
*Ciarán Mc Goldrick, Trinity College Dublin*

**9:35 AM**  
Effects of a program integrating course for students of computer science and engineering  
*Viggo Kann, KTH Royal Institute of Technology*  
*Anna-Karin Hägfeldt, KTH Royal Institute of Technology*

### Papers: Out-of-school Activities (room: L13-L14)

**8:45 AM**  
Meeting graduate employability needs through open-source collaboration with industry  
*Matthew Forshaw, Newcastle University*  
*Ellis Solaiman, Newcastle University*  
*Oonagh McGee, Newcastle University*  
*Hugo Firth, Newcastle University*  
*Paul Robinson, RedHat*  
*Ryan Emerson, RedHat*

**9:10 AM**  
Agile Software Development: Study Away  
*Maureen Doyle, Northern Kentucky University*  
*Candace Gibson, Northern Kentucky University*  
*Michelle Melish, Northern Kentucky University*  
*Rees Storm, Northern Kentucky University*

**9:35 AM**  
Computer history on the move  
*Graham Farr, Monash University*  
*Barbara Ainsworth, Monash University*  
*Chris Avram, Monash University*  
*Judithe Sheard, Monash University*
### Papers: Classroom Techniques (room: L5-L6)

**8:45 AM** Improving Engagement in Introductory Courses with Homework Resubmission
*Amanda Holland-Minkley, Washington & Jefferson College*
*Thomas Lombardi, Washington & Jefferson College*

**9:10 AM** Animated Examples as a Practice Content in Java Programming Course
*Roya Hosseini, University of Pittsburgh*
*Teemu Sirkiä, Aalto University, School of Science*
*Julio Guerra, University of Pittsburgh*
*Peter Brusilovsky, University of Pittsburgh*
*Lauri Malmi, Aalto University, School of Science*

**9:35 AM** Memory Diagrams: A Consistant Approach Across Concepts and Languages
*Toby Dragon, Ithaca College*
*Paul Dickson, Ithaca College*

### Papers: Computing in Middle School (room: L2-L3)

**8:45 AM** Factors Influencing Computer Science Learning in Middle School
*Shuchi Grover, Stanford University/SRI International*
*Roy Pea, Stanford University*
*Stephen Cooper, Stanford University*

**9:10 AM** MyCS at 5: Assessing a middle-years CS curriculum
*Brenda Castro, Harvey Mudd College*
*Terrence Diaz, Harvey Mudd College*
*Marissa Gee, Harvey Mudd College*
*Rebekah Justice, Harvey Mudd College*
*David Kwan, Harvey Mudd College*
*Preethi Seshadri, Harvey Mudd College*
*Zachary Dodds, Harvey Mudd College*

*Shuchi Grover, SRI International*
*Daisy Rutstein, SRI International*
*Eric Snow, SRI International*

### Papers: Games (room: Cotton Row)

**8:45 AM** A Multidisciplinary, Multifaceted Approach to Improve the Computer Science based Game Design Education: Methodology and Assessment
*Chang Yun, University of Houston*
*Hesam Panahi, University of Houston*
*Zhigang Deng, University of Houston*
9:10 AM  Design Insights into the Creation and Evaluation of a Computer Science Educational Game
Britton Horn, Northeastern University
Christopher Clark, Northeastern University
Oskar Strom, Northeastern University
Hilery Chao, Brown University
Amy Stahl, Northeastern University
Casper Hartevedt, Northeastern University
Gillian Smith, Northeastern University

9:35 AM  Experiences from an Experiential Learning Course on Games Development
Stephan Krusche, Technische Universität München
Barbara Reichart, Technische Universität München
Paul Tolstoi, Technische Universität München
Bernd Brügge, Technische Universität München

Special Session (room: Steamboat)  Sat 8:45 AM - 10:00 AM
Nifty Assignments
Nick Parlante, Stanford University
Julie Zelenski, Stanford University

SATURDAY 10:00 AM - 10:45 AM
Break & Exhibits

SATURDAY 10:45 AM - 12:00 PM
Papers: Security (room: L11-L12)  Sat 10:45 AM - 12:00 PM

10:45 AM  The Teaching Privacy Curriculum
Serge Egelman, International Computer Science Institute
Julia Bernd, International Computer Science Institute
Gerald Friedland, International Computer Science Institute
Daniel Garcia, University of California, Berkeley

11:10 AM  A Reflective Approach to Assessing Student Performance in Cybersecurity Exercises
Richard Weiss, The Evergreen State College
Michael Locasto, University of Calgary
Jens Mache, Lewis and Clark College

11:35 AM  Facilitating a Battle Between Hackers: Computer Security Outside of the Classroom
Nathan Backman, Buena Vista University
### Papers: Alternative Learning Experiences (room: L13-L14)  
**Sat 10:45 AM - 12:00 PM**

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<th>Time</th>
<th>Title</th>
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<tr>
<td>10:45 AM</td>
<td>A Programming Contest Strategy Guide</td>
<td>Aaron Bloomfield, University of Virginia</td>
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<td>Borja Sotomayor, University of Chicago</td>
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<tr>
<td>11:10 AM</td>
<td>Datathons: An Experience Report of Data Hackathons for Data Science Education</td>
<td>Craig Anslow, Middlesex University</td>
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<td>John Brosz, University of Calgary</td>
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<td>Frank Maurer, University of Calgary</td>
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<td>Mike Boyes, University of Calgary</td>
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<td>11:35 AM</td>
<td>Teaching &quot;Lawfulness&quot; With Kodu</td>
<td>David Touretzky, Carnegie Mellon University</td>
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<td>Christina Gardner-McCune, University of Florida</td>
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<td>Ashish Aggarwal, University of Florida</td>
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### Papers: CS Ed Research 3 (room: L5-L6)  
**Sat 10:45 AM - 12:00 PM**

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<th>Time</th>
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<tr>
<td>10:45 AM</td>
<td>Towards a Common Framework for Evaluating Computing Outreach Activities</td>
<td>Adrienne Decker, Rochester Institute of Technology</td>
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<td>Monica McGill, Bradley University</td>
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<td>Amber Settle, DePaul University</td>
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<td>11:10 AM</td>
<td>Retention of Flow: Evaluating a Computer Science Education Week Activity</td>
<td>Dorit Assaf, School of Education FHNW</td>
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<td>Ashok Basawapatna, SUNY Old Westbury</td>
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<td>Nora Escherle, School of Education FHNW</td>
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<td>Alexander Repenning, School of Education FHNW</td>
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<td>Carmine Maiello, School of Education FHNW</td>
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<tr>
<td>11:35 AM</td>
<td>Students' Initial Course Motivation and Their Achievement and Retention in College CS1 Courses</td>
<td>Duane Shell, University of Nebraska-Lincoln</td>
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<td>Leen-Kiat Soh, University of Nebraska-Lincoln</td>
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<td>Abraham Flanigan, University of Nebraska-Lincoln</td>
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<td>Markeya Peteranetz, University of Nebraska-Lincoln</td>
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### Papers: K-12 Teaching (room: L2-L3)  
**Sat 10:45 AM - 12:00 PM**

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<th>Time</th>
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<tr>
<td>10:45 AM</td>
<td>Landscape of K-12 Computer Science Education in the U.S.: Perceptions, Access, and Barriers</td>
<td>Jennifer Wang, Google, Inc.</td>
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<td>Hai Hong, Google, Inc.</td>
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<td>Jason Ravitz, Google, Inc.</td>
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<td>Sepehr Moghadam, Google, Inc.</td>
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</tbody>
</table>
11:10 AM  CS Teacher Experiences with Educational Technology, Problem-Based Learning, and a CS Principles Curriculum  
George Veletsianos, Royal Roads University  
Bradley Beth, The University of Texas at Austin  
Calvin Lin, The University of Texas at Austin

11:35 AM  Contextualized Teaching in the Lower Secondary Education * Long-term Evaluation of a CS Course from Grade 6 to 10  
Arno Pasternak, TU Dortmund

Papers: Tools (room: Cotton Row)  Sat 10:45 AM - 12:00 PM

10:45 AM  Supporting Active Learning by Introducing an Interactive Teaching Tool in a Data Structures and Algorithms Course  
Tommy Färnqvist, Linköping University  
Fredrik Heintz, Linköping University  
Patrick Lambrix, Linköping University  
Linda Mannila, Åbo Akademi University  
Chunyan Wang, Linköping University

11:10 AM  SEURAT_Edu: A Tool to Assist and Assess Student Decision-Making in Design  
John Malloy, Miami University  
Janet Burge, Wesleyan University

11:35 AM  Incorporating Ubiquitous Pedagogical Designs in a Computer Science Tutoring System  
Rachel Harsley, University of Illinois at Chicago  
Nick Green, University of Illinois at Chicago  
Mehrdad Alizedah, University of Illinois at Chicago  
Sabita Acharya, University of Illinois at Chicago  
Davide Fossati, Carnegie Mellon University in Qatar  
Barbara Di Eugenio, University of Illinois at Chicago  
Omar AlZoubi, Carnegie Mellon University in Qatar

Special Session (room: Steamboat)  Sat 10:45 AM - 12:00 PM

Advanced Placement Computer Science Principles (APCSP): A Report from Teachers  
Owen Astrachan, Duke University  
R. Brook Osborne, Code.org
Special Session (room: Mississippi)  
Sat 10:45 AM - 12:00 PM

Special Session: Helping Students to Develop Communication, Teamwork, and Other Process Skills with POGIL  
Clifton Kussmaul, Muhlenberg College  
Helen Hu, Westminster College  
Tammy Pirmann, School District of Springfield Township

SATURDAY 12:00 PM - 2:00 PM
Luncheon - Keynote by Karen Lee Ashcraft, University of Colorado Boulder

SATURDAY 3:00 PM - 6:00 PM
Workshops

Workshop #401: JavaScript Applications for CS0/CS1: Getting hands-on with Code.org's App Lab  
(room: L1)  
Baker Franke, Code.org  
Sarah Filman, Code.org  
Brook Osborne, Code.org

Workshop #402: Programming web services on the cloud with Node.js (room: L2-L3)  
Ariel Ortiz, Tecnológico de Monterrey, Campus Estado de México

Workshop #403: Teaching Robotics Using ROS (room: L5-L6)  
Nathan Sprague, James Madison University  
Ralph Grove, James Madison University

Workshop #405: Advanced Placement Computer Science Principles Performance Task: Create – Applications from Ideas, Approaches to Programming Collaboratively. It's a Hackathon Workshop! (room: L9)  
Lien Diaz, College Board  
Richard Kick, Newbury Park High School  
Andrew Kuemmel, Madison West High School

Workshop #406: Scaling up for CS10K: Teaching and Supporting New Computer Science High School Teachers (room: L10)  
Tiffany Barnes, North Carolina State University  
Jamie Payton, University of North Carolina at Charlotte  
Daniel Garcia, University of California and Berkeley

Workshop #407: App Development for All! (room: L11-L12)  
David Hayes, Lane Tech College Prep High School (Chicago Public Schools)  
Dale Reed, University of Illinois at Chicago
Workshop #408: Mixing Code and 3D Printers with Madeup (room: L13-L14)
Chris Johnson, University of Wisconsin, Eau Claire
Heather Amthauer, University of Wisconsin, Eau Claire
Ryan Hardt, University of Wisconsin, Eau Claire
Peter Bui, University of Notre Dame

Workshop #409: Infusing Cooperative Learning into Early Computer Science Courses to Support Improved Engagement (room: River Bluff)
Fran Trees, Rutgers University
Jeff Gray, University of Alabama
Owen Astrachan, Duke University

Workshop #410: Solving the Cloud Computing Impasse with MBaaS (room: Sultana)
Michael Rogers, Northwest Missouri State University
Bill Siever, Western Illinois University

Workshop #411: Reviewing NSF Proposals: Learn about Effective Proposal Writing via the Review Process (room: Mississippi)
Paul Tymann, The National Science Foundation
Michael Erlinger, The National Science Foundation

Workshop #412: Transition to Java Using Alice 3 (room: Cotton Row)
Donald Slater, Alice Project, Carnegie Mellon University
Wanda Dann, Alice Project, Carnegie Mellon University