

THE SEVENTEENTH ANNUAL
**HIGH CONFIDENCE
SOFTWARE AND SYSTEMS CONFERENCE**

Annapolis, MD | May 8-10, 2017 | <http://cps-hcss.org>

PROGRAM AGENDA

The seventeenth annual HCSS Conference will be held May 8-10, 2017 in Annapolis, Maryland. Daily themes for the program are Privacy, Assurance for AI, Industrialization of Formal Methods, and Technology and Model Cross-over. Our 2017 keynote speakers will be Evan Fortunato (Apogee Research), John Launchbury (DARPA), Naomi Lefkowitz (NIST), Ray Richards (DARPA), and Aaron Roth (UPenn).

The conference will be held at The Governor Calvert House, part of the Historic Inns of Annapolis. The address is 58 State Circle, Annapolis, Maryland 21401. Parking at the Historic Inns of Annapolis is by valet only. Daily parking for local government attendees is complimentary. Please visit the registration table each day to have your parking validated or the full fee may apply.

Monday, May 8

Theme: Industrialization of Formal Methods

0800 – 1630	REGISTRATION
0900 – 1000	KEYNOTE PRESENTATION Formal Methods and the Defense Industrial Base Ray Richards (DARPA)
1000 – 1030	Proving Amazon's s2n Correct Joey Dodds (Galois, Inc.)
1030 – 1100	BREAK
1100 – 1130	Cross-Tool Semantics for Protocol Security Goals Joshua Guttman (MITRE)
1130 – 1200	Levels of Software Assurance in SPARK Yannick Moy (AdaCore)
1200 – 1330	LUNCH (on your own)
1330 – 1400	Certifying SAT Proofs Warren A. Hunt, Jr. and Marijn Heule (UT Austin)
1400 – 1430	SunDew: Systematic Automated Security Testing Franjo Ivancic (Google)
1430 – 1500	POSTER SESSION
1500 – 1530	Development of Verified Message Encoder/Decoder for Automotive V2V Communications Mark Tullsen (Galois, Inc.)
1530 – 1600	Z3str3: A DPLL(T) Solver for a Theory of Strings and Integers Murphy Berzish (University of Waterloo)
1600 – 1630	Identifying Security Critical Properties for the Dynamic Verification of a Processor Rui Zhang (UNC Chapel Hill)
1630	ADJOURN FOR THE DAY

Tuesday, May 9

Theme: *Privacy*

0800 – 1630	REGISTRATION
0900 – 1000	KEYNOTE PRESENTATION Privacy Engineering: Just Another Unicorn? Naomi Lefkowitz (NIST)
1000 – 1030	Jana - Private Data as a Service David Archer (Galois, Inc.)
1030 – 1100	BREAK
1100 – 1130	The Semantics of Privacy: From Privacy Policy Analysis to Code-Level Enforcement Travis Breaux (Carnegie Mellon University)
1130 – 1200	Applying NIST's new Privacy Risk Management Framework Isaac Potoczny-Jones (Tozny, LLC.)
1200 – 1330	LUNCH (on your own)
1330 – 1430	KEYNOTE PRESENTATION Differential Privacy and Data Analysis Aaron Roth (UPenn)
1430 – 1530	POSTER SESSION
1530 – 1615	Allowing Bounded Leakage in Secure Computation: A New Application of Differential Privacy Dov Gordon (George Mason University)
1615	ADJOURN FOR THE DAY
1830	Conference Dinner at Blackwall Hitch Annapolis 400 Sixth Street Annapolis, Maryland 21403

Wednesday, May 10

Theme: *Assurance for AI and Technology and Model Cross-over*

0800 – 1630	REGISTRATION
0900 – 1000	KEYNOTE PRESENTATION Challenges in Assuring AI John Launchbury (DARPA)
1000 – 1030	Certified Multiplicative Weights Update, or Verified Learning Without Regret Gordon Stewart (Ohio University)
1030 – 1100	BREAK
1100 – 1130	A Commitment Logic for Reasoning about Trust in Complex Systems David Burke (Galois, Inc.)
1130 – 1200	Verified Data Structures for Trusted Autonomy: A Compilation Approach David S. Hardin and Konrad Slind (Rockwell Collins)
1200 – 1330	LUNCH (on your own)
1330 – 1430	KEYNOTE PRESENTATION Symmetries in Software Evan Fortunato (Apogee Research)
1430 – 1515	POSTER SESSION
1515 – 1600	A Translationally Inspired Model for Autonomous Device Self-Regulation Greg Wettstein (IDfusion, LLC.)
1600 – 1630	Design Studio for Rigorous System Design Using Architecture Styles and BIP Anastasia Mavridou (Vanderbilt University)
1630	CONFERENCE ADJOURNED