Program Agenda
Tuesday, May 8 – Theme: Technology Transfer

Moderator:  
*John Launchbury (Galois, Inc.)*

7:30 – 8:30  
Continental Breakfast and Registration

8:30 – 9:30  
Formal Methods and DO-178C  
*Darren Cofer (Rockwell Collins)*

9:30 – 10:00  
Refreshments

10:00 – 10:40  
Accessible Integrated Formal Reasoning Environments in Classroom Instruction of Mathematics  
*Andrei Lapets (Boston University)*

10:40 – 11:20  
Structured Orchestration of Data and Computation  
*Jayadev Misra (University of Texas at Austin)*

11:20 – 12:00  
Developer-Friendly Contract-Based Notations and Machine-Checkable Evidence for Verification of Information Flow Properties for Embedded Systems  
*John Hatcliff (Kansas State University)*

12:00 – 13:30  
Lunch

13:30 – 14:30  
Keynote: Technology Transfer Challenges within the S&T Community  
*Dawn Meyerriecks (ODNI)*

14:30 – 15:00  
Refreshments

15:00 – 15:45  
Tech Transfer of Software Tools  
*Jim Larus (Microsoft Research)*

15:45 – 16:30  
VehicleForge.mil: A Distributed, Semantically-Aware Framework to Support the Needs of the Open Hardware Community  
*Jack Zentner (Georgia Tech)*

16:30 – 17:00  
Open Discussion on Technology Transfer

17:00  
Adjourn for the day
Wednesday, May 9 – Theme: Formal Synthesis
Moderator: Frank Taylor (NSA)

7:30 – 8:30 Continental Breakfast and Registration
8:30 – 9:30 Keynote: Program Synthesis for Performance
Markus Püschel (ETH Zurich)
9:30 – 10:00 Poster Session and Refreshments
10:00 – 10:40 Preventing Exploits Against Software of Uncertain Provenance
David Melski (GrammaTech, Inc.)
10:40 – 11:20 VIBRANCE: Automatic Removal of Security Vulnerabilities from Java Applications
Alessandro Coglio (Kestrel Institute)
11:20 – 12:00 Compositional Verification of Architectural Models
Darren Cofer (Rockwell Collins)
12:00 – 13:30 Lunch
13:30 – 14:10 Formal Synthesis of Efficient Verified Emulators
Magnus Myreen (University of Cambridge, UK)
14:10 – 14:50 Synthesizing Architectural Models of Cyber-Physical Systems
Pete Manolios (Northeastern University)
14:50 – 15:30 Static Previrtualization
Natarajan Shankar (SRI, International)
15:30 – 16:00 Poster Session and Refreshments
16:00 – 16:40 Synthesis of Concurrent Garbage Collectors
Douglas Smith (Kestrel Institute)
16:40 – 17:20 High Assurance Cyber Military Systems: A New DARPA Program
Kathleen Fisher (DARPA)
17:20 Adjourn for the day
18:30 – 20:30 HCSS Conference Dinner (The Chart House)
Thursday, May 10 – Theme: Compositional Reasoning

Moderator: Raymond Richards (Rockwell Collins)

7:30 – 8:30 Continental Breakfast and Registration

8:30 – 9:30 Keynote: A New Approach to Temporal Property Verification
Byron Cook (Microsoft Research)

9:30 – 10:00 Refreshments

10:00 – 10:40 The Ramification Rule of Separation Logic
Jules Villard (University College London, UK)

10:40 – 11:20 Verification of Elliptic Curve Cryptography
Joe Hendrix (Galois, Inc.)

11:20 – 12:00 Axe: An Automated Formal Equivalence Checking Tool for Programs
Eric Smith (Kestrel Institute)

12:00 – 13:30 Lunch

13:30 – 14:10 Reasoning About Non-Determinism
Eric Koskinen (University of Cambridge, UK and New York University)

14:10 – 14:50 FUSE: Inter-Application Security for Android
Joe Hurd (Galois, Inc.)

Ryan Bradetich (University of Idaho)

15:30 – 16:00 Refreshments

16:00 – 16:40 Software Model Checking Secure Systems
Limin Jia (Carnegie Mellon University)

16:40 – 17:20 3 Years After L4.verified
Gerwin Klein (NICTA and UNSW, Australia)

17:20 Adjourn for the day
Friday, May 6 – Designed-In Security Symposium

Moderator: Brad Martin (ODNI/ NSA)

7:30 – 8:30 Continental Breakfast and Registration

8:30 – 9:00 A Brief Introduction to Designed-In Security
   Carl Landwehr (Cyber Security Policy and Research Institute)

9:00 – 10:00 Keynote: Ensuring System Resilience at Design Time: A User and Attacker Oriented Approach
   William Sanders (University of Illinois Urbana-Champaign)

10:00 – 10:30 Refreshments

10:30 – 11:15 Twenty Years of Industrial Formal Methods
   Steve Miller (Rockwell Collins)

11:15 – 12:00 Designing for the Human Element in Security
   M. Angela Sasse (University College London, UK)

12:00 – 13:30 Lunch

13:30 – 14:30 Keynote: A Look at Designed-In Security Needs and Preliminary Successes
   Bill Scherlis (Carnegie Mellon University)

14:30 – 15:00 Refreshments

15:00 – 15:45 Keynote: The Role of Domain-Specific Techniques in Designed-In Security
   John Launchbury (Galois, Inc.)

15:45 – 16:30 Designed-In Security for Mobile Applications
   Jonathan Aldrich (Carnegie Mellon University)

16:30 – 17:15 Margrave: Query-Based Policy Analysis
   Dan Dougherty (Worcester Polytechnic Institute)

17:15 Conference Adjourned