

ASE 2007 Advance Program

Wednesday, November 7, 2007

Continental Breakfast

Wednesday, November 7, 8:00 – 8:45

Keynote Session

Wednesday, November 7, 8:45 – 10:30

Noble Ballrooms II / III

“Toward Automated Software Development”

Doug Smith, Kestrel Institute

Session 1: Maintenance

Wednesday, November 7, 11:00 – 12:30

Noble Ballroom I

“Exploring the Neighborhood with Dora to Expedite Software Maintenance”

Emily Hill, Lori Pollock, and K. Vijay-Shanker, University of Delaware

“NetStub: A Framework for Verification of Distributed Java Applications”

Elliot Barlas and Tevfik Bultan, University of California Santa Barbara

“Modeling Bug Report Quality”

Pieter Hooimeijer and Westley Weimer, University of Virginia

Session 2: Fault Tolerance

Wednesday, November 7, 11:00 – 12:30

Valencia I / II / III

“DiConic Addition of Failsafe Fault-Tolerance”

Ali Ebneenasir, Michigan Technological University

“Ensuring Consistency in Long Running Transactions”

Jeffrey Fischer and Rupak Majumdar, University of California, Los Angeles

“Assertion-based Repair of Complex Data Structures”

Bassem Elkarablieh, Ivan Garcia, Yuk Lai Suen, and Sarfraz Khurshid, University of Texas at Austin

Lunch

Wednesday, November 7, 12:30 – 2:00

Noble Ballrooms II / III

Session 3: Programming Help

Wednesday, November 7, 2:00 – 3:30
Noble Ballroom I

“Automatic Code Stylizing”

Steven Reiss, Brown University

“Keyword Programming in Java”

Greg Little and Robert Miller, MIT CSAIL

“Towards Supporting Awareness of Indirect Conflicts across Software Configuration Management Workspaces”

Anita Sarma, Gerald Bortis, and Andre van der Hoek, University of California, Irvine

Session 4: Program Analysis

Wednesday, November 7, 2:00 – 3:30
Valencia I / II / III

“Combined Static and Dynamic Mutability Analysis”

Shay Artzi, Adam Kiezun, David Glasser, and Michael D. Ernst, MIT

“Sequential Circuits for Program Analysis”

Fadi Zaraket, Adnan Aziz, Sarfraz Khurshid, University of Texas at Austin

“Residual Dynamic Typestate Analysis: Exploiting Static Analysis Results to Reformulate and Reduce the Cost of Dynamic Analysis”

Matthew Dwyer and Rahul Purandare, University of Nebraska - Lincoln

Poster/Tool Demos

Wednesday, November 7, 4:00 – 6:00
Noble Ballrooms II / III

Mini-Tutorial I

Wednesday, November 7, 4:30 – 6:00
Valencia I / II / III

“Tutorial on JML, the Java Modeling Language”

Gary Leavens, University of Central Florida

Conference Reception

Wednesday, November 7, 7:00 – 9:00
Noble Ballrooms II / III

Thursday, November 8, 2007

Continental Breakfast

Thursday, November 8, 8:00 – 9:00

Keynote Session

Thursday, November 8, 9:00 – 10:30

Noble Ballrooms II / III

“Specifying and Verifying Software”

K. Rustan M. Leino, Microsoft Research

Best paper session:

Thursday, November 8, 11:00 – 11:30

Noble Ballrooms II / III

“Scalable Automatic Test Data Generation from Modeling Diagrams”

Yannis Smaragdakis, University of Oregon

Christoph Csallner, Georgia Institute of Technology

Session 5: Test Generation

Thursday, November 8, 11:30 – 12:30

Noble Ballroom I

“Directed Test Generation Using Symbolic Grammars”

Ru-Gang Xu and Rupak Majumdar, UC Los Angeles

“Nighthawk: A Two-Level Genetic-Random Unit Test Data Generator”

James Andrews and Felix Li, University of Western Ontario

Session 6: Model-Based Development 1

Thursday, November 8, 11:30 – 12:30

Valencia I / II / III

“An Aspect-oriented Weaving Mechanism Based on Component and Connector Architecture”

Naoyasu Ubayashi, Akihiro Sakai, Kyushu Institute of Technology

Tetsuo Tamai, University of Tokyo

“Towards Automatic Model Synchronization from Model Transformations”

Yingfei Xiong, Dongxi Liu, Zhenjiang Hu, University of Tokyo

Haiyan Zhao, Peking University

Masato Takeichi, University of Tokyo

Hong Mei, Peking University

Lunch

Thursday, November 8, 12:30 – 2:00
Noble Ballrooms II / III

Session 7: Debugging

Thursday, November 8, 2:00 – 3:30
Noble Ballroom I

“An Automated Model-Based Debugging Approach”

Cemal Yilmaz and Clay Williams, IBM T. J. Watson Research Center

“Context-Aware Statistical Debugging: From Bug Predictors to Faulty Control Flow Paths”

Lingxiao Jiang and Zhendong Su, University of California at Davis

“Object Ownership Profiling: A Technique for Finding and Fixing Memory Leaks”

Derek Rayside and Lucy Mendel, MIT CSAIL

Session 8: Reuse and COTS

Thursday, November 8, 2:00 – 3:30
Valencia I / II / III

“PARSEWeb: A Programmer Assistant for Reusing Open Source Code on the Web”

Suresh Thummalapenta and Tao Xie, North Carolina State University

“Automatic Extraction of Framework-Specific Models from Framework-Based Application Code”

Michal Antkiewicz, Thiago Tonelli Bartolomei, and Krzysztof Czarnecki, University of Waterloo

“Pallino: Automation to Support Regression Test Selection for COTS-based Applications”

Jiang Zheng, Laurie Williams, North Carolina State University

Brian Robinson, ABB Inc., US Corporate Research

Session 9: Traceability

Thursday, November 8, 4:00 – 5:30
Noble Ballroom I

“Feature Location via Information Retrieval based Filtering of a Single Scenario Execution Trace”

Dapeng Liu, Andrian Marcus, Denys Poshyvanyk, and Vaclav Rajlich, Wayne State University

“Clustering Support for Automated Traceability”

Chuan Duan and Jane Cleland-Huang, DePaul University

“Inferring Structural Patterns for Concern Traceability in Evolving Software”

Barthélemy Dagenais, Silvia Breu, Frédéric Weigand Warr, and Martin P. Robillard, McGill University, Canada

Session 10: Protection

Thursday, November 8, 4:00 – 5:30
Noble Ballroom II

“Finding Errors in Components That Exchange XML Data”

Mark Grechanik, Accenture Technology Labs

“A Dynamic Birthmark for Java”

David Schuler, Valentin Dallmeier, and Christian Lindig, Saarland University

“Effective Memory Protection Using Dynamic Tainting”

James Clause, Ioannis Doudalis, Alessandro Orso, and Milos Prvulovic, Georgia Institute of Technology

Mini-tutorial 2

Thursday, November 8, 4:00 – 5:30
Valencia I / II / III

“An Advanced Introduction to Alloy”

Daniel Jackson, MIT

Conference Banquet

Thursday, November 8, 7:30 – 10
Location: off site

Friday, November 9, 2007

Posters/Tool Demos

Friday, November 9, 8:30 – 10:30
Noble Ballrooms II / III

Mini-tutorial 3

Friday, November 9, 9:00 – 10:30
Valencia I / II / III

“Concolic Testing”

Koushik Sen, University of California Berkeley

Session 11: Inception

Friday, November 9, 11:00 – 12:00
Noble I

“An Automated Approach for Monitoring and Diagnosing Requirements”

Yiqiao Wang, University of Toronto

Yijun Yu, The Open University, UK

John Mylopoulos, University of Toronto

“The Business Case for Automated Software Engineering”

Tim Menzies, Oussama Elrawas, West Virginia University

Jairus Hihn and Martin Feather, NASA Jet Propulsion Laboratory

Ray Madachy and Barry Boehm, University of Southern California

Session 12: Concurrency Testing

Friday, November 9, 11:00 – 12:00
Valencia I / II / III

“Testing Concurrent Programs using Value Schedules”

Jun Chen and Steve MacDonald, University of Waterloo

“Effective Random Testing of Concurrent Programs”

Koushik Sen, University of California, Berkeley

Lunch

Friday, November 9, 12:00 – 1:30
Noble Ballrooms II / III

Noble Session 13: Testing

Friday, November 9, 1:30 – 2:30
Noble I

“Automated GUI Regression Testing Guided by User Profiles”

Penelope Brooks and Atif Memon, University of Maryland

“Efficiently Monitoring Data-Flow Test Coverage”

Raul Santelices and Mary Jean Harrold, Georgia Institute of Technology

Session 14: Model-Based Development II

Friday, November 9, 1:30 – 2:30

Valencia I / II / III

“Synthesizing Client Load Models for Performance Engineering via Web Crawling”

Yuhong Cai, Rainbow Cai, John Grundy, and John Hosking, University of Auckland

“Synthesis of Test Purpose Directed Reactive Planning Tester for Nondeterministic Systems”

Jüri Vain, Tallinn Univ. of Technology

Kullo Raiend and Andres Kull, Elvior

Juhan Ernits, Institute of Cybernetics

Keynote session

Friday, November 9, 2:45 – 4:15

Noble II / III

“The Embarrassing Truth About Software and Automation and What Should be Done About It “

Bran Selic, IBM

Closing session

Friday, November 9, 4:15 – 4:30

Noble II / III