

ICSE 2009



**CONFERENCE
PROGRAM**

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Welcome to ICSE 2009

On behalf of the entire organizing committee, I welcome you to the thirty-first International Conference on Software Engineering. There are four main tracks running through the conference this year: (1) research papers, (2) research demonstrations, (3) software engineering in practice (SEIP), and (4) new ideas and emerging results (NIER). We also have some special events this year that I would like to point out. We have three excellent technical briefings on the topics of software governance, energy-efficient SE, and multicore software engineering. We have a session that brings the ACM TOSEM and IEEE TSE journals to the conference. We also bring the Student Contest in Software Engineering (SCORE) to the conference. I am excited about the SCORE idea, and hope it can lead to much wider student participation in software engineering at the B.S. and M.S. levels, as well as bring more of these students to the conference. And speaking of students, I also want to welcome the Doctoral Symposium students - look for their posters at the conference.



The Organizing Committee and I set a goal to become more green at the conference. Many good ideas were put on the table. We adopted the ones we could. For instance: your badge is made from unbleached, recycled paper; your badge holder is made from vegetable byproducts; and your lanyard is recycled from soda bottles. The printed program and conference signage were printed locally on 100 percent post-consumer waste recycled paper. We have worked with the chefs at the hotel and at the Aquarium to provide local products when possible. Our goal was to draw a 100-mile circle around Vancouver and look for food and produce within it. Finally, Steve Easterbrook will bring a more global perspective to the green idea in a conference session on Thursday.

In closing, I really enjoy the location of our conference site, near the water and the park. To get ready for an idea-packed day, I try to go jogging every morning. I urge you to say hi if you see me on the trail.

Steve Fickas
General Chair, ICSE 2009

Wednesday, May 20

8:30–10:30 a.m.

Opening Ceremony: General Chair

Keynote Address: Steve McConnell

10 Most Powerful Ideas in Software Engineering

10:30–11:00 a.m.

Break

11:00 a.m.–12:30 p.m.

Research: Collaborative Development (Salon A)

Predicting Build Failures Using Social Network Analysis on Developer Communication
T. Wolf, A. Schröter, D. Damian, T. Nguyen

How Tagging Helps Bridge the Gap between Social and Technical Aspects in Software Development
C. Treude, M. Storey

Tesseract: Interactive Visual Exploration of Socio-Technical Relationships in Software Development
A. Sarma, L. Maccherone, P. Wagstrom, J. Herbsleb

Research: Software Quality and Metrics (MacKenzie)

Succession: Measuring Transfer of Code and Developer Productivity
A. Mockus

Predicting Faults Using the Complexity of Code Changes
A.E. Hassan

A Case-study on Using an Automated In-Process Software Engineering Measurement and Analysis System in an Industrial Environment
I.D. Coman, A. Sillitti, G. Succi

Research: Debugging (Salon F)

HOLMES: Effective Statistical Debugging via Efficient Path Profiling
T. Chilimbi, B. Liblit, K. Mehra, A. Nori, K. Vaswani

Taming Coincidental Correctness: Coverage Refinement with Context Patterns to Improve Fault Localization

X. Wang, S.C. Cheung, W.K. Chan, Z. Zhang

Lightweight Fault-Localization Using Multiple Coverage Types

R. Santelices, J.A. Jones, Y. Yu, M.J. Harrold

SEIP: Complex Systems (Salon B)

Model Checking Flight Control Systems: The Airbus Experience

T. Bochot, P. Virelizier, H. Waeselynck, V. Wiels

Extracting, Specifying, and Predicting Software System Properties in Component Based Real-Time Embedded Software Development

J.E. Kim, O. Rogalla, S. Kramer, A. Haman

Experience with Modularity in an Advanced Teleconferencing Service Deployment

E. Cheung, T.M. Smith

Formal Research Demonstrations: Software Development Assistance (Seymour)

UEMan: A Tool to Manage User Evaluation in Development Environments

S.R. Humayoun, Y. Dubinsky, T. Catarci

TranStrL: An Automatic Need-to-Translate String Locator for Software Internationalization

X. Wang, L. Zhang, T. Xie, H. Mei, J. Sun

SmartTutor: Creating IDE-Based Interactive Tutorials via Editable Replay

Y. Zhang, G. Huang, N. Zhang, H. Mei

11:00 a.m.–12:30 p.m.

New Ideas and Emerging Results (Salon C)

Codebook: Social Networking Over Code
A. Begel, R. DeLine

Creating and Evolving Software by Searching, Selecting and Synthesizing Relevant Source Code

D. Poshyvanyk, M. Grechanik

Detecting Inefficient API Usage

D. Kawrykow, M. Robillard

Mining Recurrent Activities: Fourier Analysis of Change Events

A. Hindle, M.W. Godfrey, R.C. Holt

Toward a Framework for Law-Compliant Software Requirements

A. Siena, J. Mylopoulos, A. Perini, A. Susi

How Do System Architectures Affect Software Requirements?

J. Miller, R. Ferrari, N.H. Madhavji

The Marketplace of User Interface Real Estate

L. Troiano, G. Canfora

SecondWATCH: A Workspace Awareness Tool Based on a 3-D Virtual World

E. Ye, L.A. Neiman, H.Q. Dinh, C. Liu

The Inference Validity Problem in Legal Discovery

R.E.K. Stirewalt, L.K. Dillon, E.T. Kraemer

Improving Bug Tracking Systems

T. Zimmermann, R. Premraj, J. Sillito, S. Breu

12:30 p.m.–2:00 p.m.

Lunch

BOF Meetings

2:00 p.m.–3:30 p.m.

Technical Briefing (Salon C)

Software Governance, Anthony Finkelsteint

Research: Dynamic Adaptation (Salon A)

Using Quantitative Analysis to Implement Autonomous IT Systems

R. Calinescu, M. Kwiatkowska

Model Evolution by Runtime Adaptation

I. Epifani, C. Ghezzi, R. Mirandola, G. Tamburrelli

Taming Dynamically Adaptive Systems Using Models and Aspects

B. Morin, O. Barais, G. Nain, J.M. Jézéquel

Research: Components (Salon F)

In-Field Healing of Integration Problems with COTS Components

H. Chang, L. Mariani, M. Pezzè

Modular String-Sensitive Permission Analysis with Demand-Driven Precision

E. Geay, M. Pistoia, T. Tateishi, B. Ryder, J. Dolby

License Integration Patterns: Addressing License Mismatches in Component-Based Development

D.M. German, A.E. Hassan

Research: Program Analysis I (Seymour)

Accurate Interprocedural Null-Dereference Analysis for Java

M.G. Nanda, S. Sinha

The Road Not Taken: Estimating Path Execution Frequency Statically

R.P.L. Buse, W.R. Weimer

Automatic Dimension Inference and Checking for Object-Oriented Programs

S. Hangal, M. Lam

SCORE presentations by student-team finalists (MacKenzie)

Session Chair: Dino Mandrioli and Mehdi Jazayeri

2:00–3:30 p.m.

SEIP: Refactoring and Tools (Salon B)

Refactoring Big Balls of Mud

P. Adamczyk, A. Zambrano, F. Balaguer

Experience Report: Using Tools and Domain Expertise to Remediate Architectural Violations in the LogicBlox Software Base

R.E.K. Stirewalt, S. Rugaber, H.Y. Hsu, D. Zook

Functional Abstractions for testing Repository-Style Information Systems

P. Salvaneschi

3:30 p.m.– 4:00 p.m.

Break

4:00 p.m.– 5:30 p.m.

Research: Web Applications (Salon A)

Automatic Creation of SQL Injection and Cross-Site Scripting Attacks

A. Kiezun, P.J. Guo, K. Jayaraman, M.D. Ernst

Invariant-Based Automatic Testing of AJAX User Interfaces (*ACM SIGSOFT Distinguished Paper*)

A. Mesbah, A. van Deursen

Research: Development Tools (Salon F)

FeatureHouse: Language-Independent, Automated Software Composition

S. Apel, C. Kaestner, C. Lengauer

Automatically Capturing Source Code Context of NL-Queries for Software Maintenance and Reuse

E. Hill, L. Pollock, K. Vijay-Shanker

SCORE presentations by student-team finalists (MacKenzie)

Session Chairs: Dino Mandrioli and Mehdi Jazayeri

Semantics-Based Code Search

S.P. Reiss

New Ideas and Emerging Results (Salon C)

Integrating Sustainability in Decision-Making Processes: A Modeling Strategy

J. Cabot, S. Easterbrook, J. Horkoff, J. Mazón,

L. Lessard, S. Liaskos

High-level Multicore Programming with XJava

F. Otto, V. Pankratius, W.F. Tichy

Automated Substring Hole Analysis

Y. Adler, E. Farchi, M. Klausner, D. Pelleg, O. Raz,

M. Shochat, S. Ur, A. Zlotnick

Improving the Reliability of Mobile Software Systems through Continuous Analysis and Proactive Reconfiguration

S. Malek, R. Roshandel, D. Kilgore, I. Elhag

Multidimensional Service Compositions

L. Baresi, E.D. Nitto, S. Guinea, S. Dustdar

Toward Safer Composition

A. Classen, P. Heymans, T.T. Thun, B. Nuseibeh

Genetics as a Role Model for Software Variability Management

D. Dhungana, I. Groher

Promoting Evolution by Abstracting Over Implementation Structure

D. Lievens, T. Walsh, D. Dahlem, W. Harrison

Test Selection for Result Inspection via Mining Predicate Rules

W. Zheng, M. Lyu, T. Xie

From System Specifications to Component Behavioral Models

I. Krka, G. Edwards, Y. Brun, N. Medvidovic

Design Tests: An Approach to Programmatically Check Your Code Against Design Rules

J. Brunet, D. Guerrero, J. Figueiredo

4:00 p.m.–5:30 p.m.

SEIP: Agile and Process (Salon B)

Improving Quality, One Process Change at a Time

C. Pinheiro, F. Maurer, J. Sillito

Using a Validation Model to Measure the Agility of Software Development in a Large Software Development Organization

M. Ikoma, M. Ooshima, T. Tanida, M. Oba,

S. Sakai

WEAVE: WEb Applications Validation Environment

S. Rajan, O. Tkachuk, M. Prasad, I. Ghosh,

N. Goel, T. Uehara

Formal Research Demonstrations: Testing and Fault Localization (Seymour)

A Toolset for Automated Failure Analysis

L. Mariani, F. Pastore, M. Pezzè

JUnitMX: A Change-aware Unit Testing Tool

J. Wloka, B. Ryder, F. Tip

Exploiting the Synergy between Automated-Test-Generation and Programming-by-Contract

M. Barnett, M. Fahndrich, P. de Halleux,

F. Logozzo, N. Tillmann

Wednesday Evening

SIGSOFT Townhall (Marine)

Conference Reception (Currents)

Werewolf (How ruthless are your colleagues?) (Front of Salon A)

Thursday, May 21

8:45–10:30 a.m.

Conference Update: General Chair

Keynote Address: Carlo Ghezzi

Reflections on Forty-Plus Years of Software Engineering Research Observed Through ICSE: An Insider's View

10:30 AM - 11:00 AM

Break

11:00 a.m.–12:30 p.m.

Research: Modeling (Salon A)

Reasoning About Edits to Feature Models

T. Thüm, D. Batory, C. Kästner

Learning Operational Requirements from Goal Models

D. Alrajeh, J. Kramer, A. Russo, S. Uchitel

Complete and Accurate Clone Detection in Graph-based Models

N.H. Pham, H.A. Nguyen, J.M. Al-Kofahi, T.T.

Nguyen, T.N. Nguyen

Research: Maintenance (Salon B)

How We Refactor, and How We Know It

(*ACM SIGSOFT Distinguished Paper*)

E. Murphy-Hill, C. Parnin, A. Black

The Secret Life of Bugs: Going Past the Errors and Omissions in Software Repositories

J. Aranda, G. Venolia

Discovering and Representing Systematic Code Changes

M. Kim, D. Notkin

Formal Research Demonstrations: Program Comprehension (Seymour)

CoCoViz with Ambient Audio Software Exploration

S. Boccuzzo, H.C. Gall

ConcernLines: A Timeline View of Co-Occurring Concerns

C. Treude, M.A. Storey

Alitheia Core: An Extensible Software Quality Monitoring Platform

G. Gousios, D. Spinellis

Technical Briefing (Salon C)

Green SE: Ideas for Including Energy Efficiency into your Software Projects, *Gerald Kaefer*

11:00 a.m.–12:30 p.m.

SEIP: Testing—Telecom (MacKenzie)

Automatic GUI Test Generation for Smartphone Applications—An Evaluation

A. Jäskeläinen, M. Katara, A. Kervinen,

M. Maunumaa, T. Pääkkönen, T. Takala,

H. Virtanen

Case Study: How Analysis of Customer Found Defects Can Be Used by System Test to

Improve Quality

E. Moritz

Extended eTVRA vs. Security Checklist: Experiences in a Value-Web

A. Morali, E. Zambon, S.H. Houmb, K. Sallham-

mar, S. Etalle

SEIP: Testing—Medical (Salon F)

An Open Test Bed for Medical Device Integration and Coordination

A. King, S. Procter, D. Andresen, J. Hatcliff, S. Warren, W. Spees, R. Jetley, P. Jones, S. Weininger

Improving Software Risk Management in a Medical Device Company

F. McCaffery, J. Burton, I. Richardson

Automated Testing of Healthcare Document Transformations in the PICASSO Interoperability Platform

M. Pascale, M. Roselli, U. Rugani, C. Bartolini, A. Bertolino, F. Lonetti, E. Marchetti, A. Polini

12:30–2:00 p.m.

Lunch

BOF Meetings

2:00–3:30 p.m.

Research: Code Generation and Transformation (Salon A)

Equality and Hashing for (Almost) Free: Generating Implementations from Abstraction Functions
D. Rayside, Z. Benjamin, R. Singh, J.P. Near, A.I. Milicevic, D. Jackson

Locating Need-to-Translate Constant Strings for Software Internationalization

X. Wang, L. Zhang, T. Xie, H. Mei, J. Sun

Automatically Finding Patches Using Genetic Programming (*IFIP TC2 Manfred Paul Award and ACM SIGSOFT Distinguished Paper*)

W. Weimer, T.V. Nguyen, C. Le Goues, S. Forrest

Research: Program Comprehension (MacKenzie)

Improving API Documentation Usability with Knowledge Pushing

U. Dekel, J.D. Herbsleb

Listening to Programmers—Taxonomies and Characteristics of Comments in Operating System Code
Y. Padioleau, L. Tan, Y.Y. Zhou

TSE-TOSEM (Salon F)

Carving and Replaying Differential Unit Test Cases from System Test Cases

Sebastian Elbaum

Do Crosscutting Concerns Cause Defects?

Marc Eaddy

Tools and Experiments Supporting a Testing-based Theory of Component Composition

Dick Hamlet

Special Green Session (Salon C)

Software Engineering for the Planet

Session Chair: Steve Easterbrook

2:00–3:30 p.m.

SEIP: Predicting Defects and SEIP-Keynote on Video Game Industry (Salon B)

Predicting Defects in SAP Java Code: An Experience Report

T. Holschuh, M. Päufer, K. Herzig, T. Zimmermann, R. Premraj, A. Zeller

Reflecting on Development Processes in the Video Game Industry

A. Brownsword

Formal Research Demonstrations: Web Services (Seymour)

ContextServ: A Platform for Rapid and Flexible Development of Context-Aware Web Services

Q.Z. Sheng, S. Pohlenz, J. Yu, H.S. Wong, A.H.H. Ngu, Z. Maamar

REMAN: a Pro-active Reputation Management Infrastructure for Composite Web Services

D. Bianculli, W. Binder, M.L. Drago, C. Ghezzi

ITACA: An Integrated Toolbox for the Automatic Composition and Adaptation of Web Services

J. Cámara, J.A. Martín, G. Salaün, J. Cubo, M. Ouedern, C. Canal, E. Pimentel

3:30–4:00 p.m.

Break

4:00–5:30 p.m.

Awards Plenary

ACM SIGSOFT Awards

IFIP TC2 Manfred Paul Award

SCORE Awards

Most Influential Paper Award and Paper

Presentation (Dewayne Perry, chair):

N Degrees of Separation: Multi-Dimensional Separation of Concerns

P. Tarr, H. Ossher, W. Harrison,

S.M. Sutton Jr.

Friday, May 22

8:45–10:30 a.m.

Conference Update: General Chair

Keynote Address: Pamela Zave

Software Engineering for the Next Internet

10:30–11:00 a.m.

Break

11:00 a.m.–12:30 p.m.

Research: Testing I (Salon A)

Maintaining and Evolving GUI-Directed Test Scripts

M. Grechanik, Q. Xie, C. Fu

MINTS: A General Framework and Tool for Supporting Test-suite Minimization

H.Y. Hsu, A. Orso

Research: Concurrency (Salon B)

FlexSync: An Aspect-oriented Approach to Java Synchronization

C. Zhang

Effective Static Deadlock Detection (*ACM SIGSOFT Distinguished Paper*)

M. Naik, C.S. Park, K. Sen, D. Gay

Refactoring Sequential Java Code for Concurrency

D. Dig, J. Marrero, M. Ernst

Formal Research Demonstrations: From Requirements to Architecture (Salon C)

Feedback-Driven Requirements Engineering: The Heuristic Requirements Assistant

E. Knauss, D. Lübke, S. Meyer

Ævol: A Tool for Defining and Planning Architecture Evolution

D. Garlan, B. Schmerl

Tesseract: Interactive Environment for Exploration of Project Relationships

L. Maccherone, A. Sarma, P. Wagstrom, J. Herbsleb

11:00 a.m.–12:30 p.m.

SCORE wrap-up session (Salon F)

Session Chair: Dino Mandrioli and Mehdi Jazayeri

12:30–2:00 p.m.

Lunch

BOF meetings

2:00–3:30 p.m.

Research: Testing II (Salon A)

WISE: Automated Test Generation for Worst-Case Complexity

J. Burnim, S. Juvekar, K. Sen

Taint-Based Directed Whitebox Fuzzing

V. Ganesh, T. Leek, M. Rinard

Research: Model Synthesis (Salon B)

Synthesizing Intensional Behavior Models by Graph Transformation

C. Ghezzi, A. Mocci, M. Monga

Analyzing Critical Process Models through Behavior Model Synthesis

C. Damas, B. Lambeau, F. Roucoux,

A. van Lamsweerde

Validation of Contracts Using Enabledness Preserving Finite State Abstractions

G. de Caso, V. Braberman, D. Garbervetsky,

S. Uchitel

Technical Briefing (Salon C)

Multicore Software Engineering
Walter Tichy and Victor Pankratius

Formal Research Demonstrations: Differences and Similarities (Salon F)

Ldiff: An Enhanced Line Differencing Tool
G. Canfora, L. Cerulo, M. Di Penta

SemDiff: Analysis and Recommendation Support for API Evolution
B. Dagenais, M.P. Robillard

CloneDetective—A Workbench for Clone Detection Research
E. Juergens, F. Deissenboeck, B. Hummel

3:30–4:00 p.m.

Break

4:00–5:30 p.m.

Research: Development Paradigms and Software Process (Salon A)

Does Distributed Development Affect Software Quality? An Empirical Case Study of Windows Vista (*ACM SIGSOFT Distinguished Paper*)

C. Bird, N. Nagappan, P. Devanbu, H. Gall, B. Murphy

The Impact of Process Choice in High Maturity Environments: An Empirical Analysis
N. Ramasubbu, R. Balan

How to Avoid Drastic Software Process Change (Using Stochastic Stability)
T. Menzies, S. Williams, O. El-rawas, B. Boehm, J. Hihn

Research: Program Analysis II (Salon B)

Do Code Clones Matter?
E. Juergens, F. Deissenboeck, B. Hummel, S. Wagner

Mining Exception-Handling Rules as Sequence Association Rules
S. Thummalapenta, T. Xie

Safe-commit Analysis to Facilitate Team Software Development
J. Wloka, B. Ryder, F. Tip, X. Ren

4:00–5:30 p.m.

Formal Research Demonstrations: Concurrency and Debugging (Salon C)

Concurrer: A Tool for Retrofitting Concurrency into Sequential Java Applications via concurrent Libraries
D. Dig, J. Marrero, M.D. Ernst

Deconstructing Concurrency Heisenbugs
T. Ball, S. Burckhardt, J. de Halleux, M. Musuvathi, S. Qadeer

VIDA: Visual Interactive Debugging
D. Hao, L. Zhang, L. Zhang, J. Sun, H. Mei

Formal Research Demonstrations: Components and Features (Salon F)

Save-IDE—A Tool for Design, Analysis, and Implementation of Component-Based Embedded Systems
S. Sentilles, A. Pettersson, D. Nyström, T. Nolte, P. Pettersson, I. Crnkovic

FeatureIDE: Tool Framework for Feature-Oriented Software Development
C. Kästner, T. Thüm, G. Saake, J. Feigenspan, T. Leich, F. Wielgorz, S. Apel

Synthesis of Timed Behavior from Scenarios in the Fujaba Real-Time Tool Suite
S. Henkler, J. Greenyer, M. Hirsch, W. Schäfer, K. Alhawash, T. Eckardt, C. Heinzemann, R. Löffler, A. Seibel, H. Giese

5:45–6:30 p.m.

Closing Plenary: General Chair

Report from ICSE 2010 (Cape Town)

Report from ICSE 2011 (Honolulu)

Keynote Speakers

Carlo Ghezzi: Reflections on Forty-Plus Years of Software Engineering Research Observed Through ICSE: An Insider's View

Carlo Ghezzi is a professor and chair of software engineering in the Department of Electronics and Information of Politecnico di Milano. He is the rector's delegate for research, past member of the Academic Senate and of the Board of Governors, and past department chair. He held temporary positions at the University of California at Los Angeles, University of North Carolina at Chapel Hill, University of Padova, ESLAI-Buenos Aires, University of California at Santa Barbara, Technical University of Vienna, University of Klagenfurt, and University of Lugano.

He is an ACM fellow, an IEEE fellow, and a member of the Italian Academy of Sciences. He was awarded the ACM SIGSOFT Distinguished Service Award (2006). He has been a member of the ACM Nominating Committee and is presently a member of the committee for the ACM Software Systems Award and a member-at-large of the ACM Executive Committee. He has been on the evaluation board of several international research projects and institutions in Europe, Japan, and the United States.

He is a regular member of the program committee of important conferences in the software engineering field, such as the ICSE and ESEC/FSE, for which he also served as program and general chair. He was general cochair of the International Conference on Service Oriented Computing.

Ghezzi was the editor-in-chief of the ACM Transactions on Software Engineering and Methodology (from 2001 to 2006). He is currently an associate editor of IEEE Transactions on Software Engineering, Science of Computer Programming, Service Oriented Computing and Applications, and Software Process Improvement and Practice.

Ghezzi's research has been focusing on software engineering and programming languages. Currently, he is especially interested in methods and tools to improve dependability of adaptable and evolvable



distributed applications, such as service-oriented architectures and ubiquitous-pervasive computer applications. He coauthored more than 160 papers and eight books. He coordinated several national and international (EU funded) research projects. He has recently been awarded an advanced grant from the European Research Council.

Steve McConnell: 10 Most Powerful Ideas in Software Engineering

At software engineering's fortieth birthday, do we know which software engineering ideas matter most? In this talk, award-winning author Steve McConnell identifies ten of the most powerful ideas in software engineering. McConnell explains how the ten ideas form the foundation for effective software development, and he shows how practices ranging from the waterfall model to extreme programming measure up. He uses these key ideas to explain which currently popular software engineering practices will withstand the test of time, and which are fleeting fads.

Steve McConnell is best known as the author of *Software Estimation: Demystifying the Black Art*, *Code Complete*, Second Edition, *Rapid Development*, and other software industry classics. His first two books won *Software Development* magazine's Jolt Excellence award for best programming books of their years.

In 1998, readers of *Software Development* maga-



zine named Steve one of the three most influential people in the software industry along with Bill Gates and Linus Torvalds. He is past editor-in-chief of IEEE Software magazine and past chair of the IEEE Professional Practices Committee.

Steve currently works as CEO and chief software engineer at Construx Software, where he personally works with a few select clients to improve their software development practices, and also oversees the rest of Construx's work with many other companies. He can be reached at stevemcc@construx.com.

Pamela Zave: Software Engineering for the Next Internet

The Internet no longer meets the world's requirements. Recognition of the Internet architecture's inherent flaws has opened a window of opportunity for fresh thinking; granting agencies in both Europe and North America are funding large programs to lay a foundation for the next Internet.

The skills and perspective of the networking community are necessary but not sufficient to meet the needs of those who develop and deploy networked applications. The current Internet exhibits problems due to prejudice against application servers, neglect of the functional aspects of networking, poor understanding of abstraction and composition, and conflation of concerns. These problems make some applications very difficult to build and deploy, and they do not appear in the networking research community's mainstream agenda for improving the Internet.

Software engineers are already solving some of these problems by means of middleware. It is time for software engineers to broaden and deepen their

interest in the Internet, so that we can design a hierarchy of composable, optional, functional overlays as the architecture of the next Internet as seen by applications. At the same time, we must work with the networking community to merge our top-down viewpoint with their profound bottom-up understanding of network resources and performance.

Pamela Zave received an A.B. degree in English from Cornell University, and a Ph.D. in computer sciences from the University of Wisconsin–Madison. She has held positions at the University of Maryland and Bell Labs, and is now with AT&T Laboratories—Research.

Zave is interested in all aspects of formal methods for software engineering as applied to networks. For the past ten years she has worked with a group of other researchers building and analyzing IP-based voice and multimedia services using the Distributed Feature Composition architecture, invented by her and Michael A. Jackson. Her other research interests include requirements engineering and multiparadigm specification.

Zave is an ACM fellow. She has won the International Conference on Software Engineering Ten-Year Most Influential Paper Award, the International Requirements Engineering Symposium Ten-Year Most Influential Paper Award, the AT&T Strategic Patent Award, and the AT&T Science and Technology Medal. She has also won three Best Paper awards, and holds twelve patents in the telecommunications area.

Zave is currently chair of IFIP Working Group 2.3 (Programming Methodology).



Tuesday Evening Events

1. IBM Jazz Event

5:30 p.m. Salons D and E

The Jazz platform and the Rational Team Concert are part of a new set of IBM products that support collaborative software development, an excellent platform on which software engineering researchers can build their prototypes. Come to this event to learn more and exchange ideas.

2. The Role of Judgment in Software Estimation

7:00 p.m. Seymour Room

Abstract: Consequences of poor (or good) judgment in estimation are reflected in software quality, cost, time-to-market, and operational reliability. While judgment plays a prominent role in aviation and medicine, the same care arguably needs to be taken in making trade-offs impacting software development. This panel will bring together practitioners to discuss aspects of judgment in software estimation including a discussion of current practices and influences from other disciplines

The Panel



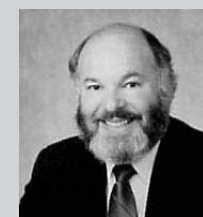
Steven Fraser
Panel Impresario
Director, Cisco Research Center
Cisco Systems
San Jose, California, USA



Magne Jørgensen
Professor and Research Scientist
Simula Research Center
Lysaker, Norway



Barry Boehm
Professor and Director
USC Center for Software Engineering
Los Angeles, California, USA



Stan Rifkin
Principal
Master Systems
Carlsbad, California, USA



Hakan Erdogmus
Senior Research Officer
Software Engineering Group
National Research Council
Ottawa, Ontario, Canada



Mike Ross
President and CEO
r2Estimating, LLC
Scottsdale, Arizona, USA

Tuesday Evening *(continued)*

3. Werewolf (How Ruthless Are Your Colleagues?)

9:00 p.m., meet in front of Salon A

Werewolf is a fun game modeling a battle between an informed minority and an uninformed majority. Players are secretly assigned roles—either “werewolves,” who know each other, or “townspeople,” who know only the number of werewolves among them. During the night phase of the game, the werewolves choose a townspeople to kill. During the day phase, all players debate the identities of the werewolf and vote to kill someone whom the majority suspect. Players are eliminated until either all werewolves are killed or the werewolves outnumber the townspeople.

Wednesday Evening

1. SIGSOFT Town Hall Meeting

6:30 p.m., Marine Room (near Currents Restaurant and indoor pool)

Come hear what ACM SIGSOFT - a sponsor of ICSE - is doing for the community, and let the SIGSOFT leadership know about your concerns and how they can better serve you. Refreshments and libations provided.

2. Conference Reception

7:00 p.m., Currents Restaurant (near lobby)

Meet and chat with ICSE friends, old and new, while wandering among posters.

Thursday Evening

Conference Banquet

7:00–10:00 p.m. Vancouver Aquarium

7:00 p.m. Guests arrive through main admissions
7:30 p.m. Aquarium show
7:45 p.m. Catering stations open
8:45 p.m. Dessert and coffee stations open
10:30 p.m. Event concludes

Buses will run in a round trip loop from 6:45 p.m. to 10:30 p.m., with the last return bus leaving the aquarium at 10:30 p.m.

The walk to the Aquarium is pleasant and approximately 1 mile from the hotel. Maps can be obtained from the concierge or front desk.

Committee Meetings

Monday, May 18

Working Group Meeting on SEPAS
(SE for Parallel Systems)
7:00 p.m. MacKenzie Room

Tuesday, May 19

2011 OC
Lunch, Coquitlam Room

SCORE PC
5:30 p.m. MacKenzie Room

TSE Board
6:00 p.m. Cypress I Room

Wednesday, May 20

SIGSOFT EC
Lunch, Prospect Room

2010 PC
12:30 p.m. Oak I

ICSE SC
7:30 p.m. MacKenzie Room

Thursday, May 21

ISSTA SC
Lunch, Thompson Room

Friday, May 22nd

2010 OC
Lunch, MacKenzie Room

FSE PC
6:30 p.m. MacKenzie Room

Saturday, May 23

FSE PC
9:00 a.m. Salon A (and Sunday, May 24)

Conference Organization

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Joanne M. Atlee, University of Waterloo, Canada

Paola Inverardi, University of L'Aquila, Italy

Workshops

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Victor Braberman, Universidad De Buenos Aires, Argentina

Tutorials/Panels

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Frances Paulisch, Siemens, Germany

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Alessandro (Alex) Orso, Georgia Institute of Technology, USA

Research Demonstrations

Bernd Fischer, University of Southampton, UK

Yannis Smaragdakis, University of Massachusetts, USA

Doctoral Consortium

David Notkin, University of Washington, USA

Marian Petre, Open University, UK

SCORE (Student Contest On softwaRE Engineering)

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Dino Mandrioli, Politecnico di Milano, Italy

Technical Briefings

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