

ICFEM 2012 (Tentative) Program

(2012.10.22)

14-Nov (Wed)		15-Nov (Thu)		16-Nov (Fri)	
08:30~17:00	Registration	08:30-17:00	Registration		
09:00~09:15	Opening				
09:15~10:30	Invited Speech #1	09:00~10:15	Invited Speech #2	09:00~10:15	Invited Speech #3
10:30~11:00	Break	10:15~10:45	Break	10:15~10:45	Break
11:00~12:30	Session 1 (Concurrency)	10:45~12:15	Session 4 (Formal Verification)	10:45~12:15	Session 9 (Abstraction and Refinement 2)
12:30~14:00	Lunch	12:15~13:45	Lunch	12:15~13:45	Lunch
14:00~15:30	Session 2 (Applications of Formal Methods to New Areas)	13:45~15:45	Session 5 (Tools) Session 6 (Testing and Run-time Verification)	13:45~15:15	Session 10 (Modeling and Development Methodology)
15:30~16:00	Break	15:45~16:15	Break	15:15~15:30	Closing
16:00~17:30	Session 3 (Quantity and Probability)	16:15~17:45	Session 7 (Temporal Logics) Session 8 (Abstraction and Refinement 1)		
18:30~20:00	Reception Party	18:30-20:30	Banquet		

Contents of Each Session

Invited Speaker #1

Mario Tokoro (Sony Computer Science Laboratories, Inc., Japan),

"Toward Practical Application of Formal Methods in Software Lifecycle Processes"

Invited Speaker #2

Darren Cofer (Rockwell Collins, USA),

"Formal Methods in the Aerospace Industry: Follow the Money"

Invited Speaker #3

Robert Shostak (Vocera Communications, Inc., USA),

"Applying Term Rewriting to Speech Recognition of Numbers"

Session 1 [Concurrency]

Authors	Title
Duy-Khanh Le, Wei-Ngan Chin and Yong-Meng Teo	Variable Permissions for Concurrency Verification
Xiaoxiao Yang, Yu Zhang, Ming Fu and Xinyu Feng	A Concurrent Temporal Programming Model with Atomic Blocks
Granville Barnett and Shengchao Qin	A Composable Mixed Mode Concurrency Control Semantics for Transactional Programs

Session 2 [Applications of Formal Methods to New Areas]

Authors	Title
Edmond Gjondrekaj, Michele Loreti, Rosario Pugliese, Francesco Tiezzi, Carlo Pinciroli, Manuele Brambilla, Mauro Birattari and Marco Dorigo	Towards a Formal Verification Methodology for Collective Robotic Systems
Einar Broch Johnsen, Rudolf Schlatte and Silvia Lizeth Tapia Tarifa.	Modeling Resource-Aware Virtualized Applications for the Cloud in Real-Time ABS
Kazuhiro Ogata and Phan Thi Thanh Huyen.	Specification and Model Checking of the Chandy & Lamport Distributed Snapshot Algorithm in Rewriting Logic

Session 3 [Quantity and Probability]

Authors	Title
Chunyan Mu	Quantitative Program Dependence Graphs
Tarek Mhamdi, Osman Hasan and Sofiene Tahar	Quantitative Analysis of Information Flow using Theorem Proving
Mahsa Varshosaz and Ramtin Khosravi	Modeling and Verification of Probabilistic Actor Systems using pRebeca

Session 4 [Formal Verification]

Authors	Title
Zongyan Qiu, Ali Hong and Yijing Liu	Modular Verification of OO Programs with Interfaces
François Bobot and Jean-Christophe Filliâtre	Separation Predicates: a Taste of Separation Logic in First-Order Logic
William Harrison, Adam Procter and Gerard Allwein	The Confinement Problem in the Presence of Faults

Session 5 [Tools]

Authors	Title
Ling Shi, Yang Liu, Jun Sun, Jin Song Dong and Gustavo Carvalho	An Analytical and Experimental Comparison of CSP Extensions and Tools
Truong Khanh Nguyen, Jun Sun, Yang Liu and Jin Song Dong	Symbolic Model-Checking of Stateful Timed CSP using BDD and Digitization
Svetoslav Ganov, Sarfraz Khurshid and Dewayne Perry	Annotation-aided Automated Incremental Analysis for Alloy via Domain Specific Solvers
Alberto Lluch Lafuente, Jose Meseguer and Andrea Vandin	State Space c-Reductions of Concurrent Systems in Rewriting Logic

Session 6 [Testing and Run-time Verification]

Authors	Title
Li Mengjun	A Practical Loop Invariant Generation Approach Based on Random Testing, Constraint Solving and Verification
Tanmoy Sarkar, Samik Basu and Johnny S. Wong	ConSMutate: SQL Mutants for Guiding Concolic Testing of Database Applications
Scott West, Sebastian Nanz and Bertrand Meyer	Demonic Testing of Concurrent Programs
Jan Olaf Blech, Ylies Falcone and Klaus Becker	Towards Certified Runtime Verification

Session 7 [Temporal Logics]

Authors	Title
Takashi Tomita, Shin Hiura, Shigeki Hagihara and Naoki Yonezaki	A Temporal Logic with Mean-Payoff Constraints
Meng Han and Zhenhua Duan	Time Constraints with Temporal Logic Programming
Yoshinori Neya and Noriaki Yoshiura	Stepwise Satisfiability Checking Procedure for Reactive System Specifications by Tableau Method and Proof System

Session 8 [Abstraction and Refinement 1]

Authors	Title
Ralf Huuck, Ansgar Fehnker, Maximilian Junker and Alexander Knapp	SMT-based False Positive Elimination in Static Program Analysis
Daniel Wonisch and Heike Wehrheim	Predicate Analysis with Block-Abstraction Memoization

Session 9 [Abstraction and Refinement 2]

Authors	Title
Yohan Boichut, Benoit Boyer, Axel Legay and Thomas Genet.	Equational Abstraction Refinement for Certified Tree Regular Model Checking
Nils Timm, Heike Wehrheim and Mike Czech	Heuristic-Guided Abstraction Refinement for Concurrent Systems
Ting Wang, Songzheng Song, Jun Sun, Yang Liu, Jin Song Dong, Xinyu Wang and Shanping Li	More Anti-Chain Based Refinement Checking

Session 10 [Modeling and Development Methodology]

Authors	Title
Fabian Buttner, Marina Egea, Jordi Cabot and Martin Gogolla	Verification of ATL Transformations Using Transformation Models and Model Finders
Shang-Wei Lin, Yang Liu, Pao-Ann Hsiung, Jun Sun and Jin Song Dong	Automatic Generation of Provably Correct Embedded Systems
Wen Su, Jean-Raymond Abrial and Huibiao Zhu	Complementary Methodologies for Developing Hybrid Systems with Event-B