

VMCAI2013 Program	
20-Jan-2013	
8:00-8:45	Breakfast
8:45-9:00	Opening
	<i>Roberto Giacobazzi, Josh Berdine, Isabella Mastroeni</i>
9:00-10:00	Invited Speaker: Leonardo de Moura - A Model-Constructing Satisfiability Calculus
10:00-10:30	Break
	Analysis of Systems with Continuous Behavior
	<i>Chair: Roberto Giacobazzi</i>
10:30-11:00	SMT-Based Bisimulation Minimisation of Markov Models - Christian Dehnert, Joost-Pieter Katoen and David Parker
11:00-11:30	Hybrid Automata-based CEGAR for Rectangular Hybrid Systems - Pavithra Prabhakar, Parasara Sridhar Duggirala, Sayan Mitra and Mahesh Viswanathan
11:30-12:00	Quantifying Information Leakage of Randomized Protocols - Fabrizio Biondi, Axel Legay, Pasquale Malacaria and Andrzej Wasowski
12:00-14:00	Lunch
14:00-15:00	Invited Speaker: Eran Yahav - Abstraction-Guided Synthesis
	Synthesis
	<i>Chair: Josh Berdine</i>
15:00-15:30	Reductions for Synthesis Procedures - Swen Jacobs, Viktor Kuncak and Philippe Suter
15:30-16:00	Towards Efficient Parameterized Synthesis - Ayrat Khalimov, Swen Jacobs and Roderick Bloem
16:00-16:30	Break
	Analysis Algorithms and Theorem Proving Techniques for Program Analysis
	<i>Chair: Samir Genaim</i>
16:30-17:00	Automatic Inference of Necessary Preconditions - Patrick Cousot, Radhia Cousot, Manuel Fähndrich and Francesco Logozzo
17:00-17:30	Fixpoint Computation in the Polyhedra Abstract Domain using Convex and Numerical Analysis Tools - Yassamine Seladji and Olivier Bouissou
17:30-18:00	SMT-Based Array Invariant Generation - Daniel Larraz, Enric Rodríguez Carbonell and Albert Rubio
18:00-18:30	Flow-sensitive Fault Localization - Juergen Christ, Evren Ermis, Martin Schäf and Thomas Wies
21-Jan-2013	
8:00-9:00	Breakfast
9:00-10:00	Invited Speaker: Francesco Ranzato - Complete Abstractions Everywhere
10:00-10:30	Break
	Automata-based Techniques
	<i>Chair: Agostino Cortesi</i>
10:30-11:00	Static Analysis of String Encoders and Decoders - Loris D'Antoni and Margus Veanes
11:00-11:30	Robustness Analysis of Networked Systems - Roopsha Samanta, Jyotirmoy Deshmukh and Swarat Chaudhuri
11:30-12:00	Causality Checking for Complex System Models - Florian Leitner-Fischer and Stefan Leue
12:00-14:00	Lunch

14:00-15:00	Invited Speaker SVARM: Joe Leslie-Hurd - Theory Engineering Using Composable Packages
	Tools
	<i>Chair: Sandrine Blazy</i>
15:00-15:30	ClabureDB: Classified Bug-Reports Database (Tool for developers of program analysis tools) - Jiri Slaby, Jan Strejcek and Marek Trtik
15:30-16:00	Tool Integration with the Evidential Tool Bus - Simon Cruanes, Gregoire Hamon, Sam Owre and Natarajan Shankar
16:00-16:30	Break
	Types and Proof Methodologies
	<i>Chair: Josh Berdine</i>
16:30-17:00	Compositional and Lightweight Dependent Type Inference for ML - He Zhu and Suresh Jagannathan
17:00-17:30	Abstract Read Permissions: Fractional Permissions without the Fractions - Stefan Heule, Rustan Leino, Peter Müller and Alexander Summers
17:30-18:00	Sound and Complete Flow Typing with Unions, Intersections and Negations - David Pearce
18:00-19:00	Invited Speaker SVARM: Ken McMillan - Logic as the lingua franca of software verification
20:00-23:00	Social Dinner
	22-Jan-2013
8:00-9:00	Breakfast
9:00-10:00	Invited Speaker: Andreas Podelski - Automata as Proofs
10:00-10:30	Break
	Abstract domains
	<i>Chair: Isabella Mastroeni</i>
10:30-11:00	Knockout Prediction for Reaction Networks with Partial Kinetic Information - Mathias John, Mirabelle Nebut and Joachim Niehren
11:00-11:30	Reduced Product Combination of Abstract Domains for Shapes - Antoine Toubhans, Bor-Yuh Evan Chang and Xavier Rival
11:30-12:00	Abstraction of Syntax - Vijay D'Silva and Daniel Kroening
12:00-14:30	Lunch
	Combining Boolean Solving and Abstract Domains for Theories
	<i>Chair: Francesco Ranzato</i>
14:30-15:00	Logico-Numerical Max-Strategy Iteration - Peter Schrammel and Pavle Subotic
15:00-15:30	A Constraint Solver based on Abstract Domains - Marie Pelleau, Antoine Miné, Charlotte Truchet and Frederic Benhamou
15:30-16:00	An Abstract Interpretation of DPLL(T) - Martin Brain, Vijay D'Silva, Leopold Haller, Alberto Griggio and Daniel Kroening
16:00-16:30	Break
	Distributed/Concurrent System Verification
	<i>Chair: Lenore Zuck</i>
16:30-17:00	All for the Price of Few (Parameterized Verification through View Abstraction) - Parosh Aziz Abdulla, Frédéric Haziza and Lukas Holik
17:00-17:30	Uncovering Symmetries in Irregular Process Networks - Kedar Namjoshi and Richard Treffler
17:30-18:00	State Space Reduction for Sensor Networks using Two-level Partial Order Reduction - Manchun Zheng, David Sanán, Jun Sun, Yang Liu, Jin Song Dong and Yu Gu
18:00-18:30	Compositional Sequentialization of Periodic Programs - Sagar Chaki, Arie Gurfinkel, Soonho Kong and Ofer Strichman
18:30-18:45	Conference chair report and closing