



21st Static Analysis Symposium

6th Workshop on Numerical and Symbolic Abstract Domains
5th Workshop on Static Analysis and Systems Biology
5th Workshop on Tools for Automatic Program Analysis



September 11-13 2014, Germany
Novotel, Hochstraße 11, 81669 München



Static Analysis and Systems Biology

Wednesday, September 10th

8:30	Welcome (Loïc Paulevé)
9:00	Gheorghe Craciun. Persistence, Permanence, and Global Stability in Biological Interaction Networks
10:00	coffee break
10:30	Erwan Bigan, Jean-Marc Steyaert, and Stéphane Douady. On necessary and sufficient conditions for stationary proto-cell growth
11:00	Vincent Picard, Anne Siegel, and Jeremie Bourdon. Multivariate Normal Approximation for the Stochastic Simulation Algorithm: limit theorem and applications
11:30	Alan Veliz-Cuba, Boris Aguilar and Reinhard Laubenbacher. Dimension reduction of large sparse AND-NOT networks
12:00	lunch in the Novotel restaurant
14:00	Fabian Theis. Model reduction for the efficient moment-closure based simulation of stochastic chemical reaction kinetics
15:00	Lubos Brim, Juraj Nižnan, and David Šafránek. Compact Representation of Photosynthesis Dynamics by Rule-based Models
15:30	coffee break
16:00	Jerome Feret. An algebraic approach for inferring and using symmetries in rule-based models
16:30	Diana Hermith, Davide Chiarugi, Moreno Falaschi, and Carlos Olarte. Verification of spatial and temporal modalities in biochemical systems
17:00	concluding remarks

Invited talks have a blue background.



Tools for Automatic Program Analysis

Wednesday, September 10th

8:30	Welcome (Anders Møller)
9:00	Alexey Loginov. Machine-code analysis and transformation at GrammaTech
9:45	Yannis Smaragdakis. Declarative Static Program Analysis
10:30	coffee break
11:00	Sebastian Biallas, Stefan Kowalewski, Stefan Stattelmann and Bastian Schlich. Static Analysis of Industrial Controller Code using Arcade.PLC
11:30	Sven Mattsen, Arne Wichmann and Sibylle Schupp. BDDStab: BDD-based Value Analysis of Binaries
12:00	lunch in the Novotel restaurant
13:30	Werner Dietl. The Checker Framework: pluggable static analysis for Java
14:15	David Pichardie. Formal Verification of a C Static Analyzer
15:00	coffee break
15:30	Eric Bodden. What's that app doing with my data? - Challenges and solutions to practical taint analysis
16:15	end of TAPAS
16:30	see program for NSAD on next page

Invited talks have a blue background.



Numerical and Symbolic Abstract Domains

Wednesday, September 10th

16:15	end of TAPAS, see previous page
16:15	Welcome (Axel Simon)
16:30	Gianluca Amato, Francesca Scozzari and Enea Zaffanella. Efficient Constraint/Generator Removal from Double Description of Polyhedra
17:00	Vivien Maisonnette, Olivier Hermant and François Irigoin. Computing Invariants with Transformers: Experimental Accuracy and Speed
17:30	Xueguang Wu, Liqian Chen and Ji Wang. An Abstract Domain to Infer Symbolic Ranges over Nonnegative Parameters
18:00	end of NSAD

workshop day ends at 18:00



Static Analysis Symposium

Thursday, September 11th

	8:50	Welcome (Helmut Seidl)	
	9:00	Patrice Godefroid (Microsoft Research, Redmond, USA). Dynamic Program Verification	
	10:00	coffee break	
Domains	10:30	Liqian Chen, Jiangchao Liu, Antoine Miné, Deepak Kapur, and Ji Wang. An Abstract Domain to Infer Octagonal Constraints with Absolute Value	Chair: Xavier Rival
	11:00	Khalil Ghorbal, Andrew Sogokon, and André Platzer. Invariance of Conjunctions of Polynomial Equalities for Algebraic Differential Equations	
	11:30	Caterina Urban and Antoine Miné. A Decision Tree Abstract Domain for Proving Conditional Termination	
	12:00	lunch at the Novotel restaurant	
Verification	13:30	Yu-Fang Chen, Chiao Hsieh, Ming-Hsien Tsai, Bow-Yaw Wang, and Farn Wang. Verifying Recursive Programs using Intraprocedural Analyzers	Chair: Luke Ong
	14:00	Guillaume Iosif, Christophe Alias, and Sanjay Rajopadhye. On Program Equivalence with Reductions	
	14:30	Parosh Aziz Abdulla, Lukas Holik, and Frédéric Haziza. Block Me If You Can! (Context-Sensitive Parameterized Verification)	
	15:00	coffee break	
Pointers & Heaps	15:30	Magnus Madsen and Anders Møller. Sparse Dataflow Analysis with Pointers and Reachability	Alan Mycroft
	16:00	Sen Ye, Yulei Sui, and Jingling Xue. Region-based Selective Flow-Sensitive Pointer Analysis	
	16:30	Antoine Toubhans, Bor-Yuh Evan Chang, and Xavier Rival. An Abstract Domain Combinator for Separately Conjoining Memory Abstractions	

day one ends at 17:00



Static Analysis Symposium

Friday, September 12th

Concurrency	9:00	Luke Ong (University of Oxford, UK). Higher-Order Model Checking: From Theory to Practice (Chair: Markus Müller-Olm)	Patrice Godefroid
	10:00	coffee break	
	10:30	Louis Mandel and Cédric Pasteur. Reactivity of Cooperative Systems	
	11:00	Yuri Meshman, Andrei Marian Dan, Martin Vechev, and Eran Yahav. Synthesis of Memory Fences via Refinement Propagation	
	11:30	Elvira Albert, Jesús Correas Fernández, and Guillermo Román-Díez. Peak Cost Analysis of Distributed Systems	
Miscellaneous	12:00	lunch at the Novotel restaurant	Tomáš Vojnar
	13:30	Woosuk Lee, Hakjoo Oh, and Kwangkeun Yi. A Progress Bar for Static Analyzers	
	14:00	Roopsha Samanta, Oswaldo Olivo, and E. Allen Emerson. Cost-aware Automatic Program Repair	
day two ends at 14:30			
	16:15	guided tour at Lenbachhaus, see maps	
	18:30	dinner at restaurant ELLA, Lenbachhaus	

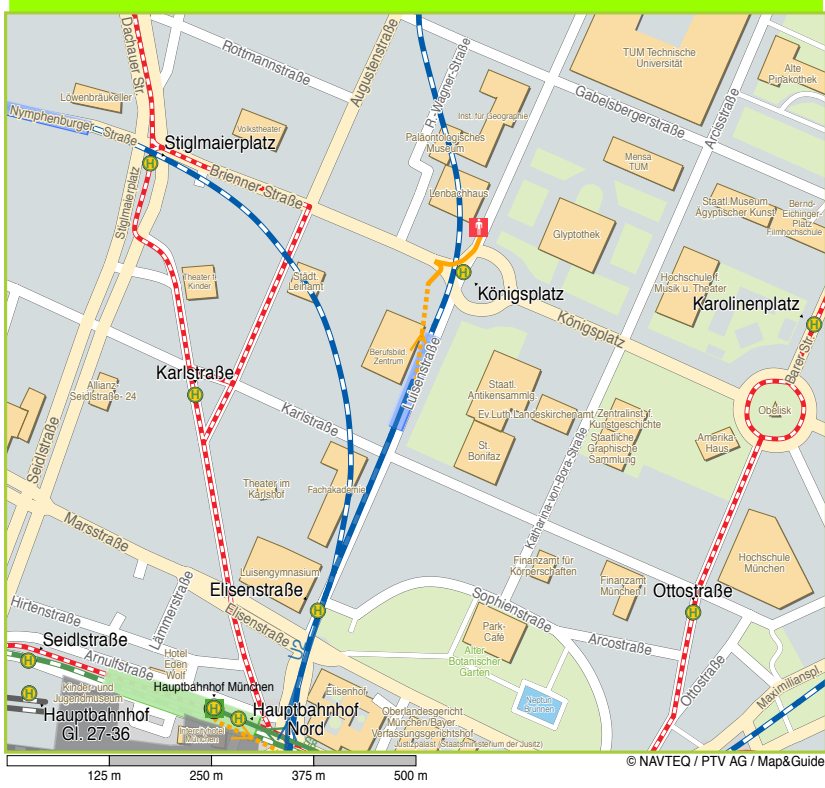


Excursion to Lenbachhaus

We transfer to the Lenbachhaus by public transport. If you do not have a valid ticket you may ask for a day ticket for SAS attendees at the main Novotel reception.

The quickest route is to take any S-Bahn from Rosenheimer Platz towards the central station (Hauptbahnhof). The green man on the map below is where you start.







Static Analysis Symposium

Saturday, September 13th

Heaps & Objects	9:00	Tomáš Vojnar (Brno University of Technology, Czech Republic). Fully Automated Shape Analysis Based on Forest Automata with Data Constraints (Chair: Anders Møller)	Gregor Snelting
	10:00	coffee break	
	10:30	Frédéric Besson, Thomas Jensen, and Pierre Vittet. SawjaCard: a Static Analysis Tool for Certifying Java Card Applications	
	11:00	Arlen Cox, Bor-Yuh Evan Chang, and Xavier Rival. Automatic Analysis of Open Objects in Dynamic Language Programs	
	11:30	James Brotherston and Nikos Gorogiannis. Cyclic Abduction of Inductively Defined Safety and Termination Preconditions	
Fixpoints	12:00	lunch at the Novotel restaurant	Axel Simon
	13:30	David Monniaux and Peter Schrammel. Speeding up Logico-numerical Strategy Iteration	
	14:00	Alexey Bakhirkin, Josh Berdine, and Nir Piterman. Backward Analysis via Over-Approximate Abstraction and Under-Approximate Subtraction	
	14:30	Aleksandar Chakarov and Sriram Sankaranarayanan. Expectation Invariants for Probabilistic Program Loops as Fixed Points	

day three ends at 15:00



Bavarian for Beginners

Bavarian	German	English
Preiss	Preuße	Prussian
Brezn	Brezel	pretzel
ezad	jetzt	now
Fuizl	Bierdeckel	beer mat
Glump	minderwertige Ware	inferior goods
Gschbusi	Liebhaber(-in)	(girl/boy) friend
grantig	schlecht gelaunt	bad tempered
Haxn	Bein	leg
Hendl	gegrilltes Huhn	grilled chicken
Himmefadda	Gott	god
jodeln	jodeln	to yodel
Kraizdaifi	Kreuzteufel	bloody devil
Noàgal	Getränkertest	leftover of a drink
Noàgalzuzla	Person die Noàgal trinkt	person drinking Noàgal
Obazda	bay. Käsespezialität	bavarian cheese speciality
ōzapfa	ein Bierfass anstechen	to tap a barrel beer
pfiäd aich Gōd	Auf Wiedersehen	good bye
pfuidaifi	ekelerregend	disgusting
Raiwadatschi	Kartoffelpuffer	fried potato patty
Radla	Helles mit Limonade	lager shandy
Schmarrn	Unsinn	nonsense
Zweschgndatschi	Pflaumenkuchen	plum pie



Deutsches Museum München





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