

# STACS 2009 Program

Thursday 26 February

8:00

Registration  
Foyer of Building 101

9:00	<p>Welcome Address <b>Conference Chairs and Rector of the University of Freiburg, Prof. Dr. Hans-Jochen Schiewer</b></p>
------	--

9:15-10:15	<p>Invited Talk: Jean-Éric Pin <b>Profinite Methods in Automata Theory</b></p>
------------	--

Coffee Break

	Session 1A	Session 1B
10:45-11:10	<p>Tomáš Ebenlendr and Jiří Sgall <i>Semi-Online Preemptive Scheduling: One Algorithm for All Variants</i></p>	<p>Andrei A. Bulatov, Víctor Dalmau, Martin Grohe and Dániel Marx <i>Enumerating Homomorphisms</i></p>
11:10-11:35	<p>Ho-Leung Chan, Jeff Edmonds, Tak-Wah Lam, Lap-Kei Lee, Alberto Marchetti-Spaccamela and Kirk Pruhs <i>Nonclairvoyant Speed Scaling for Flow and Energy</i></p>	<p>Volker Diekert and Manfred Kufleitner <i>Fragments of First-Order Logic over Infinite Words</i></p>
11:35-12:00	<p>Matthias Englert, Heiko Röglin, Jacob Spönemann and Berthold Vöcking <i>Economical Caching</i></p>	<p>Lutz Schröder and Dirk Pattinson <i>Strong Completeness of Coalgebraic Modal Logics</i></p>

Short Break

	Session 2A	Session 2B
12:10-12:35	<p>Henning Fernau, Fedor V. Fomin, Daniel Lokshantov, Daniel Raible, Saket Saurabh and Yngve Villanger <i>Kernel(s) for Problems with No Kernel: On Out-Trees with Many Leaves</i></p>	<p>Laurent Bienvenu and Rod Downey <i>Kolmogorov Complexity and Solovay Functions</i></p>
12:35-13:00	<p>Stefan Kratsch <i>Polynomial Kernelizations for <math>MIN F^+ \Pi_1</math> and <math>MAX NP</math></i></p>	<p>Marius Zimand <i>Extracting the Kolmogorov Complexity of Strings and Sequences from Sources with Limited Independence</i></p>

Lunch Break

	Session 3A	Session 3B
14:30-14:55	<p>Julien Clément, Maxime Crochemore and Giuseppina Rindone <i>Reverse Engineering Prefix Tables</i></p>	<p>Mikołaj Bojańczyk <i>Weak MSO with the Unbounding Quantifier</i></p>
14:55-15:20	<p>Danny Hermelin, Gad M. Landau, Shir Landau and Oren Weimann <i>A Unified Algorithm for Accelerating Edit-Distance Computation via Text-Compression</i></p>	<p>Dániel Marx <i>Tractable Structures for Constraint Satisfaction with Truth Tables</i></p>
15:20-15:45	<p>Jérémy Barbay and Gonzalo Navarro <i>Compressed Representations of Permutations and Applications</i></p>	<p>Leslie Ann Goldberg, Martin Grohe, Mark Jerrum and Marc Thurley <i>A Complexity Dichotomy for Partition Functions with Mixed Signs</i></p>

Coffee Break

	Session 4A	Session 4B
16:15-16:40	<p>Bodo Manthey <i>On Approximating Multi-Criteria TSP</i></p>	<p>Florian Horn <i>Random Fruits on the Zielonka Tree</i></p>
16:40-17:05	<p>Glencora Borradaile, Erik D. Demaine and Siamak Tazari <i>Polynomial-Time Approximation Schemes for Subset-Connectivity Problems in Bounded-Genus Graphs</i></p>	<p>Szczepan Hummel, Henryk Michalewski and Damian Niwiński <i>On the Borel Inseparability of Game Tree Languages</i></p>
17:05-17:30	<p>Mustaq Ahmed and Anna Lubiw <i>Shortest Paths Avoiding Forbidden Subpaths</i></p>	<p>Tomáš Brázdil, Václav Brožek, Antonín Kučera and Jan Obdržálek <i>Qualitative Reachability in Stochastic BPA Games</i></p>

Guided city tour

18:40 (in English), 19:00 (in German), 19:20 (in English)

## Friday 27 February

9:00-10:00	Invited Talk: Nicole Schweikardt <b>Lower Bounds for Multi-Pass Processing of Multiple Data Streams</b>
------------	---

Coffee Break

	Session 5A	Session 5B
10:30-10:55	Ronald de Wolf <i>Error-Correcting Data Structures</i>	Juraj Hromkovič and Georg Schnitger <i>Ambiguity and Communication</i>
10:55-11:20	Gianni Franceschini, Roberto Grossi and S. Muthukrishnan <i>Optimal Cache-Aware Suffix Selection</i>	Pietro Di Lena and Luciano Margara <i>Undecidable Properties of Limit Set Dynamics of Cellular Automata</i>
11:20-11:45	Roberto Grossi, Alessio Orlandi, Rajeev Raman and S. Srinivasa Rao <i>More Haste, Less Waste: Lowering the Redundancy in Fully Indexable Dictionaries</i>	Laurent Boyer and Guillaume Theyssier <i>On Local Symmetries and Universality in Cellular Automata</i>

Short Break

	Session 6A	Session 6B
11:55-12:20	Michael R. Fellows, Jiong Guo, Hannes Moser and Rolf Niedermeier <i>A Generalization of Nemhauser and Trotter's Local Optimization Theorem</i>	Daniel Kirsten and Sylvain Lombardy <i>Deciding Unambiguity and Sequentiality of Polynomially Ambiguous Min-Plus Automata</i>
12:20-12:45	Nicolas Bousquet, Jean Daligault, Stéphan Thomassé and Anders Yeo <i>A Polynomial Kernel for Multicut in Trees</i>	Frédérique Bassino, Julien David and Cyril Nicaud <i>On the Average Complexity of Moore's State Minimization Algorithm</i>

Lunch Break

	Session 7A	Session 7B
14:15-14:40	Joël Alwen and Chris Peikert <i>Generating Shorter Bases for Hard Random Lattices</i>	Wouter Gelade, Marcel Marquardt and Thomas Schwentick <i>The Dynamic Complexity of Formal Languages</i>
14:40-15:05	André Gronemeier <i>Asymptotically Optimal Lower Bounds on the NIH-Multi-Party Information Complexity of the AND-Function and Disjointness</i>	Sven Schewe <i>Büchi Complementations Made Tight</i>
15:05-15:30	Robert Elsässer and Thomas Sauerwald <i>Cover Time and Broadcast Time</i>	Nathalie Aubrun and Mathieu Sablik <i>An Order on Sets of Tilings Corresponding to an Order on Languages</i>

Coffee Break

	Session 8A	Session 8B
16:00-16:25	Erik D. Demaine, Mohammadtaghi Hajiaghayi, Hamid Mahini and Morteza Zadimoghaddam <i>The Price of Anarchy in Cooperative Network Creation Games</i>	Jop Briët and Ronald de Wolf <i>Locally Decodable Quantum Codes</i>
16:25-16:50	Fabian Kuhn <i>Local Multicoloring Algorithms: Computing a Nearly-Optimal TDMA Schedule in Constant Time</i>	Vikraman Arvind and Partha Mukhopadhyay <i>Quantum Query Complexity of Multilinear Identity Testing</i>
16:50-17:15	Khaled Elbassioni, Erik Krohn, Domagoj Matijević, Julián Mestre and Domagoj Ševerdija <i>Improved Approximations for Guarding 1.5-Dimensional Terrains</i>	Arnab Bhattacharyya, Victor Chen, Madhu Sudan and Ning Xie <i>Testing Linear-Invariant Non-Linear Properties</i>

19:30

Conference dinner

## Saturday 28 February

9:00-10:00	Invited Talk: Monika Henzinger <b>Algorithms Research on the Web</b>
------------	--

Coffee Break

	Session 9A	Session 9B
10:30-10:55	Sourav Chakraborty, Eldar Fischer, Arie Matsliah and Raphael Yuster <i>Hardness and Algorithms for Rainbow Connectivity</i>	Alain Finkel and Jean Goubault-Larrecq <i>Forward Analysis for WSTS, Part I: Completions</i>
10:55-11:20	Babak Farzad, Lap Chi Lau, Van Bang Le and Nguyen Ngoc Tuy <i>Computing Graph Roots Without Short Cycles</i>	François Le Gall <i>Efficient Isomorphism Testing for a Class of Group Extensions</i>
11:20-11:45	Fedor V. Fomin, Petr A. Golovach and Dimitrios M. Thilikos <i>Approximating Acyclicity Parameters of Sparse Hypergraphs</i>	Artur Jež and Alexander Okhotin <i>Equations over Sets of Natural Numbers with Addition Only</i>

Short Break

	Session 10A	Session 10B
11:55-12:20	Peter Gács, Mathieu Hoyrup and Cristóbal Rojas <i>Randomness on Computable Probability Spaces. A Dynamical Point of View</i>	Kenya Ueno <i>A Stronger LP Bound for Formula Size Lower Bounds via Clique Constraints</i>
12:20-12:45	Mahdi Cheraghchi and Amin Shokrollahi <i>Almost-Uniform Sampling of Points on High-Dimensional Algebraic Varieties</i>	Victor Chepoi and Morgan Seston <i>An Approximation Algorithm for <math>l_\infty</math>-Fitting Robinson Structures to Distances</i>

End of conference