

**9<sup>th</sup> International Conference on Algebraic Informatics  
CAI 2022  
October 27-29, 2022**

**Program  
(all times are in CET)**

<b>Thursday, October 27, 2022</b>	
14:45 – 15:00	Opening
	Session chair: <b>Manfred Droste</b>
15:00 – 16:00	<a href="#">Yuri Matiyasevich</a> (Opening Lecture) <i>On Some Algebraic Ways to Calculate Zeros of the Riemann Zeta Function</i>
16:00 - 16:30	Break
	Session chair: <b>Yuri Matiyasevich</b>
16:30 - 17:30	<a href="#">Panos Pardalos</a> (Invited Lecture) <i>Cliques, Quasi Cliques, and Clique Partitions in Graphs</i>
17:30 - 18:00	<b>Lila Kari and Kalpana Mahalingam</b> <i>Watson-Crick Powers of a Word</i>
18:00 - 18:30	<b>Manuel Kauers and Jakob Moosbauer</b> <i>A Normal Form for Matrix Multiplication Schemes</i>

<b>Friday, October 28, 2022</b>	
	Session chair: <b>Mikhail Volkov</b>
09:00 – 10:00	<a href="#">Jean-Éric Pin</a> (Invited Lecture) <i>Shuffle Product of Regular Languages: Results and Open Problems</i>
10:00 - 10:30	<b>Ivana Micić, Zorana Jančić, and Stefan Stanimirović</b> <i>Computation of Solutions to Certain Nonlinear Systems of Fuzzy Relation Inequations</i>
10:30 - 11:00	Break
	Session chair: <b>Jean-Éric Pin</b>
11:00 - 12:00	<a href="#">Manfred Droste</a> (Invited Lecture) <i>Weighted Automata over Monotonic Strong Bimonoids: Decidability and Undecidability of Finite Image</i>
12:00 - 12:30	<b>Peter Kostolányi</b> <i>Bideterministic Weighted Automata</i>
12:30 - 14:30	Lunch Break

	Session chair: <b>George Rahonis</b>
14:30 - 15:00	<b>Fan Feng and Andreas Maletti</b> <i>Weighted Two-Way Transducers</i>
15:00 - 15:30	<b>Sebastian Maneth, Helmut Seidl and Martin Vu</b> <i>How to decide Functionality of Compositions of Top-Down Tree Transducers</i>
15:30 - 16:00	<b>Christina Chrysovalanti Fountoukidou and Maria Pittou</b> <i>A Formal Algebraic Approach for the Quantitative Modeling of Connectors in Architectures</i>
16:00 - 16:30	Break
	Session chair: <b>Panos Pardalos</b>
16:30 - 17:30	<a href="#">Moshe Y. Vardi</a> (Invited Lecture) <i>Constraints, Graphs, Algebra, Logic, and Complexity</i>
17:30 - 18:00	<b>Leonidas Efstathiadis</b> <i>Weighted Propositional Configuration Logic over De Morgan Algebras</i>

<b>Saturday, October 29, 2022</b>	
	Session chair: <b>Dimitrios Poulakis</b>
09:00 – 10:00	<a href="#">Robert Rolland</a> (Invited Lecture) <i>Chaining Multiplications in Finite Fields with Chudnovsky-type Algorithms and Tensor Rank of the <math>k</math>-multiplication</i>
10:00 - 10:30	<b>Virgile Dossou-Yovo, Abderrahmane Nitaj and Alain Togbé</b> <i>Finding Points on Elliptic Curves with Coppersmith's Method</i>
10:30 - 11:00	Break
	Session chair: <b>Robert Rolland</b>
11:00 - 12:00	<a href="#">Paul Spirakis</a> (Invited Lecture) <i>Some Algorithmic Problems on Temporal Graphs</i>
12:00 - 12:30	<b>Jean Néraud</b> <i>When Variable-Length Codes Meet the Field of Error Detection</i>
12:30 - 14:30	Lunch Break
	Session chair: <b>Paul Spirakis</b>
14:30 - 15:00	<b>Valentin Bakoev</b> <i>Ordering the Boolean Cube Vectors by their Weights and with Minimal Change</i>
15:00 - 15:30	<b>Danai Balla, Pourandokht Behrouz, Panagiotis Grontas, Aris Pagourtzis, Marianna Spyraou and Giannis Vrettos</b> <i>Designated-Verifier Linkable Ring Signatures with Unconditional Anonymity</i>
15:30	Closing remarks