

# ACA 2017

23rd Conference on Applications of Computer Algebra 17-21 July, 2017, Jerusalem

Commemorating the Heritage of Jonathan Michael Borwein

## Thursday 20 July

9:00 - 10:00	<b>Plenary #5 - Auditorium</b> Stephen Watt Computer Algebra in Online STEM Education				
10:00 - 10:30	Coffee Break				
	<b>S14 - Auditorium</b>	<b>S15 - Room 315</b>	<b>S4 - Room 325</b>	<b>S8 - Room 460</b>	
10:30 - 11:00	M. Klin Some new computer-aided models for the exceptional Zara graph on 126 vertices	S.Covanov Improved method to find optimal formulae for bilinear map	S.Engelberg,O.Keren Finite fields, computer algebra systems, and non-linear coding	I. Kotsireas Algorithms and open problems for weighing matrices	
11:00 - 11:30	N.Kruger Automorphism groups of classical amorphous association schemes of Latin type	O. Schwartz Minimizing arithmetic and communication costs for faster matrix computations	R. Kozera , M.Wilkolazka A modified Hermite interpolation with exponential parametrization	T. Mansour Wilf classification of subsets of four-letter patterns	
11:30 - 12:00	R. Nedela Enumeration of actions of cyclic groups on compact closed surfaces	A. Tiskin Communication-efficient parallel Bruhat decomposition	B.J. Kubica, J.Kurek Interval Nonlinear Solver with symbolic preprocessing for training AI tools in presence of perturbations	E. Rowland Automatic proofs for establishing the structure of integer sequences avoiding a pattern	
12:00 - 12:30	S. Reichard Algebraic Graph Theory Algorithms For Modern Computer Architecture	S. Toledo Efficient algorithms for evaluating high-degree matrix polynomials	A.N. Prokopenya Modelling Atwood's machine with three degrees of freedom	M. Schaps External Littelmann paths for crystals of type A	
12:30 - 13:30	Lunch				
	<b>S14 - Auditorium</b>	<b>S15 - Room 315</b>	<b>S4 - Room 325</b>	<b>S8 - Room 460</b>	<b>S1 - Room 450</b>
13:30 - 14:00	M. Ziv-Av Constructive enumeration of the coherent configurations	J. Johnson High-Performance Kernels for Exact Linear Algebra	H. Sarafian Two-dimensional dipole-dipole interaction and generalized orbitals under the influence of noncentral forces	M.S. Im The category of finite-dimensional representations of periplectic Lie superalgebras	E. Hall, L. Zak, S. Gitelman .A. Kouropatov DUDAMATH - The Digital Environment for Demonstrating Mathematical Ideas and Problem Solving
14:00 - 14:30	E.Shamovich The Clebsch graph on the crossroads of Algebraic Geometry and Algebraic Graph Theory	G. Malaschonok Sparse matrices in computer algebra when using distributed memory: theory and applications	W. Sun New Gronwall type inequality for the Caputo fractional differential operator and applications	L. Ye Computer algebra algorithms for proving Jacobi theta function identities	R. Ovodenjo,A.Kouropatov The use of digital tools to confront errors
14:30 - 15:00	Time for conversations	M.M. Maza Comprehensive Optimization of Parametric Kernels for Graphics Processing Units	H.Wang., R. Goldman Syzygies for Translational Surfaces	Y. Zhang Apparent singularities of D-finite systems	M. Xue Computer-Algebra-Aided Chebyshev Methods for Ordinary Differential Equations
15:00 - 15:30	Time for conversations	Time for conversations	Time for conversations	Time for conversations	W. Wojasa, J. Krupa Teaching complex potential model to students of environmental engineering faculty using Mathematica
15:30 - 16:00	Coffee Break				
16:00 - 16:30	<b>Sponsors Talk - Auditorium</b> Wolfram: Erez Kaminski , New in the Wolfram Language - making Machine Learning and other modern computing disciplines easy to use				
16:30 - 17:30	<b>Business Meeting - Auditorium</b>				