

**ACA 2008 — Sunday, July 27**

	Room A	Room B	Room C	Room D
10:00	<b>Registration</b>			
10:30				
11:00				
11:30	<b>Opening</b>			
12:00	<b>Lunch</b>			
13:30	<b>Lorenzo Robbiano:</b> <i>Border Basis and Gröbner Basis Schemes</i> (9)	<b>Anatoly Nikitin:</b> <i>Symmetries in surface diffusion processes and modelling functions for coverage profiles</i> (2)	<b>Thomas Cluzeau:</b> <i>On algebraic simplifications of linear functional systems</i> (8)	<b>A.G. Akritas, A. I. Argyris, Adam W. Strzeboński:</b> <i>FLQ, the Fastest Quadratic Complexity Bound on the Values of Positive Roots of Polynomials</i> (13)
14:00	<b>John Abbott:</b> <i>Stable Border Bases</i> (9)	<b>Kesh Govinder, Barbara Abraham-Shrauner:</b> <i>Hidden symmetries of PDEs</i> (2)	<b>Margarita Spiridonova:</b> <i>Extensions of the Heaviside Algorithm and the Duhamel Principle for Nonlocal Cauchy Problems</i> (8)	<b>Doru Stefanescu:</b> <i>Efficient Computation of Bounds for Polynomial Real Roots</i> (13)
14:30	<b>Coffee</b>			

	Room A	Room B	Room C	Room D
15:00	<b>Stanislav Bulygin:</b> <i>Obtaining and solving systems of equations in key variables only for the small variants of AES</i> (9)	<b>Sergey Meleshko:</b> <i>Applications of Reduce in equivalence problems of differential equations</i> (2)	<b>Franz Pauer:</b> <i>Gröbner bases with coefficients in rings</i> (8)	<b>Mikhail Cherepnirov:</b> <i>New block algorithm for solving large sparse linear systems over <math>GF(2)</math></i> (13)
15:30	<b>Eng-Wee Chionh:</b> <i>Some “Numerology” for the Moving Surfaces Implicitization Technique with Gröbner Blending Functions</i> (9)	<b>Juha Pohjanpelto:</b> <i>Pseudogroups, Moving Frames, and Exterior Differential Systems</i> (2)	<b>Viktor Levandovskyy:</b> <i>New algorithms and implementations for Computational D-Module theory</i> (8)	<b>Ivan Dimovski, Margarita Spiridonova:</b> <i>Symbolic and Numeric Computations for the Heaviside Algorithm</i> (13)
16:00	<b>Xavier Dahan:</b> <i>Lexicographic Gröbner basis as generalized Lagrange interpolation polynomials and its applications</i> (9)		<b>Wolf Daniel Andres:</b> <i>Various algorithms for the computation of Bernstein-Sato polynomial</i> (8)	<b>Hiroshi Murakami:</b> <i>Numerical Solution of Algebraic Equation by Filter Diagonalization Method</i> (13)
16:30	<b>Break</b>			
17:00	<b>Gerdt V.P., Zinin M.V.:</b> <i>On efficiency of involutive criteria in computing Boolean Gröbner bases</i> (9)	<b>Michal Marvan:</b> <i>On zero curvature representations</i> (2)	<b>Christoph Koutschan:</b> <i>Holonomic function identities</i> (8)	<b>Tateaki Sasaki, Hiroshi Kai:</b> <i>On Ill-conditionedness of Floating-point Gröbner Basis Computation</i> (13)
17:30	<b>Anna Bigatti:</b> <i>The Self-saturating Buchberger Algorithm</i> (9)	<b>Vladimir Kornyak:</b> <i>Gauge invariance in discrete dynamical systems</i> (2)		<b>Kiyoshi Shirayanagi, Hiroshi Sekigawa:</b> <i>Gröbner basis computation by interval trace lifting based on stabilization techniques</i> (13)
18:00	<b>Yosuke Sato:</b> <i>Boolean Gröbner Bases and Sudoku</i> (9)			<b>Daniel Lichtblau:</b> <i>Approximate Grobner Bases and Overdetermined Algebraic Systems</i> (13)
18:30				
19:00	<b>Welcome party at RISC</b>			

**ACA 2008 — Monday, July 28**

	Room A	Room B	Room C	Room D
9:00	<b>Peter Schenzel:</b> <i>Towards a classification of projective varieties by their degree</i> (9)	<b>Olav Geil:</b> <i>On the Second Weight of Generalized Reed-Muller Codes</i> (3)		<b>Oliver Salazar Celis, Annie Cuyt:</b> <i>Symbolic Versus Interval Rational Interpolation: The Problem of Unattainable Data</i> (10)
9:30	<b>Tetsuo Ida:</b> <i>Analysis of Automated Proof of Origami Morley's Theorem</i> (9)	<b>Gary McGuire:</b> <i>Cyclic Codes, APN Functions, Weight Distributions and Equivalence</i> (3)	<b>Frederick W. Chapman, Bruce Char, Jeremy Johnson:</b> <i>Freshman Engineering Computation Lab</i> (5)	<b>W. Krämer:</b> <i>Bugs, Errors, and Unexpected Results in Computer Algebra Packages</i> (10)
10:00	<b>Antonio Montes:</b> <i>Canonical reduced comprehensive Gröbner System</i> (9)	<b>Marta Giorgetti, Marco Pellegrini:</b> <i>Weight distribution of Hermitian codes</i> (3)	<b>Michael Monagan:</b> <i>Computer Algebra for Mathematics Majors</i> (5)	<b>M. Neher:</b> <i>Verification Methods Using Taylor Models</i> (10)
10:30	<b>Coffee</b>			
11:00	<b>Haohao Wang, Xiaohong Jia, Ron Goldman:</b> <i>Axial Moving Planes and Singularities of Rational Space Curves</i> (9)	<b>Roman Popovych:</b> <i>Singular reduction operators</i> (2)	<b>Elena A. Varbanova:</b> <i>Computer Algebra - A Good Reason to Bring Interest and Enthusiasm Back to Mathematics Classes</i> (5)	<b>J. Garloff:</b> <i>Application of the Bernstein Enclosure of Polynomial Ranges to the Solution of Parametric Linear Systems</i> (10)
11:30	<b>Victor Blanco:</b> <i>Multiobjective Polynomial Integer Programming using Gröbner Bases</i> (9)	<b>Alexander Bihlo:</b> <i>Symmetry methods in dynamic meteorology</i> (2)	<b>Michael McCabe:</b> <i>Revolutionary Teaching, Learning and Assessment of Computer Algebra with Computer Algebra</i> (5)	<b>E. Popova:</b> <i>Explicit Characterization of a Class of Parametric Solution Sets</i> (10)
12:00	<b>Lunch</b>			
13:30	<b>Alkis Akritas:</b> <i>Computing bounds on the values of positive roots of polynomials (Plenary Talk)</i>			
14:30	<b>Coffee</b>			

	Room A	Room B	Room C	Room D
15:00	<b>Tomas Recio:</b> <i>A protocol for automatic discovery of geometry theorems through Minimal Canonical Comprehensive Gröbner Basis</i> (9)	<b>Ekaterina Shemyakova:</b> <i>Moving Frames for Laplace Invariants</i> (2)	<b>Tadashi Takahashi:</b> <i>Computer Algebra Systems and Representations</i> (5)	<b>Christoph Quirin Lauter:</b> <i>Sollya - a numerical software tool for the semi-automatic implementation of efficient correctly rounding mathematical functions</i> (10)
15:30	<b>Kyriakos Kalorkoti:</b> <i>Model Checking in the Modal <math>\mu</math>-Calculus by Substitutions and Generic Solutions</i> (9)	<b>Sergey Golovin:</b> <i>Hierarchy of partially invariant solutions to differential equations</i> (2)	<b>Ali Sayfy, S. Khoury:</b> <i>Numerical Algorithm for the Order Verification of Numerical Methods</i> (5)	<b>F. Blomquist:</b> <i>Realizing Complex Interval Functions in Computer Algebra Systems</i> (10)
16:00	<b>Jean-François Pommaret:</b> <i>Macaulay inverse systems revisited with application to control identifiability</i> (9)		<b>Eugenia Kelepesi-Akritis, Aristotelis Raptis, Athanasia Raptis, Alkiviadis G. Akritis:</b> <i>Techniques for Translating Between the Equivalent Representations of Polynomial Functions with the TI-Nspire CAS Technology</i> (5)	
16:30	<b>Break</b>			
17:00	<b>Markus Rosenkranz, Georg Regensburger:</b> <i>Gröbner Bases for Boundary Value Problems</i> (9)	<b>Irina Kogan:</b> <i>tba</i> (2)	<b>Roman Hasek:</b> <i>Introduction to Kinematics of Manipulators using Maple</i> (5)	<b>Franz Winkler:</b> <i>Relative Gröbner bases and dimension polynomials in difference-differential modules</i> (8)
17:30	<b>Oleksandr Motsak:</b> <i>Supercommutative algebras</i> (9)	<b>Nicoleta Bila:</b> <i>A special class of symmetry reductions for PDEs involving arbitrary functions</i> (2)	<b>Gabriel Aguilera, José Luis Galán, M. Ángeles Galán, Antonio Gálvez, Antonio J. Jiménez, Yolanda Padilla, Pedro Rodríguez:</b> <i>Differential Equations with Derive 6</i> (5)	<b>Li Guo:</b> <i>On differential Rota-Baxter algebras</i> (8)
18:00	<b>Roberto La Scala, Viktor Levandovskyy:</b> <i>Letterplace ideals and non-commutative Gröbner bases</i> (9)		<b>Alkiviadis G. Akritis, Adam Strzebonski, Panagiotis S. Vigklas:</b> <i>Linear vs Quadratic Complexity - which algorithm to use?</i> (5)	<b>Georg Regensburger, Markus Rosenkranz:</b> <i>Integro-Differential Algebras as a Natural Setting for Boundary Problems</i> (8)
18:30				
19:00	<b>Business Meeting</b>			
20:00				
20:30	<b>Dinner in the Castle</b>			

**ACA 2008 — Tuesday, July 29**

	Room A	Room B	Room C	Room D
9:00			<b>Ferruh Özbudak:</b> <i>Some results on asymptotic theory of codes</i> (3)	<b>David R. Stoutemyer:</b> <i>Some Ways to Implement Computer Algebra Compactly</i> (7)
9:30		<b>Francesco Biscani:</b> <i>A modern, generic and object-oriented algebraic manipulation framework for Celestial Mechanics</i> (6)	<b>Vinod Tyagi, Amita Sethi:</b> <i>(n1b1, n2b2, n3b3)- Optimal Burst Correcting Codes over GF(2)</i> (3)	
10:00	<b>Eugenio Roanes-Lozano, Angelica Martinez-Zarzuelo, Alberto Garcia Alvarez, Michael J. Wester, Eugenio Roanes-Macias:</b> <i>Obtaining Automatically Railway Maps from a Set of Historical Events</i> (4)	<b>Corrado Falcolini:</b> <i>Construction of periodic orbits and their regularity as approximation of invariant curves</i> (6)	<b>Edgar Martinez-Moro, M.A. Borges Trenard, M. Borges Quintana:</b> <i>An algorithm for checking the equivalence of binary linear codes</i> (3)	<b>David J. Jeffrey:</b> <i>Two for One. LU matrix factors and Moore-Penrose inverse</i> (7)
10:30	<b>Coffee</b>			
11:00	<b>Brian Moore, Josef Schicho, Clément M. Gosselin:</b> <i>Dynamic Balancing of Mechanisms</i> (4)	<b>Ariadna Farrés, Àngel Jorba:</b> <i>Approximating center manifolds on a model for a Solar Sail</i> (6)	<b>Stanislav Bulygin:</b> <i>Complexity issues in decoding linear codes via polynomial systems solving</i> (3)	<b>Michael Monagan:</b> <i>How fast can we multiply and divide sparse polynomials?</i> (7)
11:30	<b>Aleksandr Mylläri, Nikita Gogin:</b> <i>A Recurrent Algorithm for Conway Matrices Related to a Non-transitive Head-or-Tail Game</i> (4)	<b>K.V. Kholshchevnikov, E.D. Kuznetsov:</b> <i>Planetary three-body problem with Poisson series processor</i> (6)	<b>Bruno Buchberger:</b> <i>Automated Algorithm Synthesis in Theorema</i> (11)	
12:00	<b>Lunch</b>			
13:30	<b>Stephen Watt:</b> <i>How to work with polynomials of symbolic degree (Plenary Talk)</i>			
14:30	<b>Coffee</b>			

	Room A	Room B	Room C	Room D
15:00	<b>Eduardo Sáenz de Cabezón, Henry P. Wynn:</b> <i>Computational algebraic algorithms for the reliability of generalized k-out-of-n and related systems</i> (4)	<b>Christoph Lhotka:</b> <i>Nekhoroshev estimates in a symplectic mapping model of the 1:1 resonance of the elliptic restricted three body problem</i> (6)	<b>Hitoshi Yanami:</b> <i>SyNRAC: a Maple Toolbox for Solving Real Algebraic Constraints</i> (11)	<b>Akira Suzuki:</b> <i>Implementation of CGS on small devices (14:50 – 15:20)</i> (7)
15:30	<b>Robert H. Lewis:</b> <i>Polynomial Equations Arising in Global Positioning Systems and in Nash Equilibria</i> (4)	<b>Juan F. San-Juan:</b> <i>PPKBZ9: Symbolic-numeric model in artificial satellite theory</i> (6)	<b>Hidenao Iwane:</b> <i>Symbolic-Numeric Cylindrical Algebraic Decomposition in SyNRAC</i> (11)	<b>Mitsushi Fujimoto:</b> <i>On the User Interface of AsirPad – a Pen-based CAS for PDA (15:20 – 16:15)</i> (7)
16:00	<b>Iulia Costin:</b> <i>Difficulties in Solving a Nonlinear System of Equations using Computer Algebra</i> (4)	<b>Andrey V. Banshchikov:</b> <i>Analysis of dynamics for a satellite with gyros with the aid of the software LinModel</i> (6)	<b>Koichi Kobayashi:</b> <i>Computation Time Reduction Techniques for Model Predictive Control of Hybrid Systems</i> (11)	<b>Stephen M. Watt:</b> <i>Compact Representation and Recognition for Handwritten Mathematical Characters (16:15 – 16:45)</i> (7)
16:30	<b>Break</b>			
17:00	<b>Gabriel Aguilera, José Luis Galán, M. Ángeles Galán, Antonio Gálvez, Antonio J. Jiménez, Yolanda Padilla, Pedro Rodríguez:</b> <i>Tableaux.mth: Semantic Tableaux for Propositional Logic with Derive</i> (4)	<b>Daniel Lichtblau:</b> <i>Dynamic visualization for computational dynamics</i> (6)	<b>Masaaki Kanno:</b> <i>Sum of Roots: a Review.</i> (11)	<b>Chris DeSalvo:</b> <i>Computer algebra for mobile devices in the real world</i> (7)
17:30	<b>E. Roanes-Lozano, Luis M. Laita, E. Roanes-Macias:</b> <i>A Symbolic-Numeric Approach to Minimal Polynomial Logic and to Rule Based Expert Systems that Use this Logic</i> (4)	<b>J. Mikram, F. Zinoun:</b> <i>Symbolic creation of nilpotent normal forms: another point of view</i> (6)	<b>Naoyuki Shinohara:</b> <i>Parametric Polynomial Spectral Factorization by Comprehensive Gröbner System</i> (11)	
18:00	<b>Bill Pletsch:</b> <i>Counting Double Cosets Using Maple</i> (4)	<b>A. Mylläri, T. Mylläri, A.Gusev, S. Vinitzky:</b> <i>Caustics in the Dynamical Systems with Two Degrees of Freedom</i> (6)	<b>Yuki Watanabe:</b> <i>Formal Verification of VLSI Circuits Using Gröbner Bases</i> (11)	<b>Hiroshi Kai:</b> <i>A MathML content markup editor on the xfy</i> (7)
18:30				
20:00	<b>Conference Dinner</b>			

**ACA 2008 — Wednesday, July 30**

	Room A	Room B	Room C	Room D
9:00	<b>Edgar Martínez Moro:</b> <i>Gröbner presentations of a monoid algebras and applications</i> (9)	<b>Àngel Jorba:</b> <i>On the automatic computation of high order variations for the numerical integration of ODE by means of the Taylor method</i> (6)	<b>Chris Brown:</b> <i>A Real Polynomial Inequality Reasoning API or Server</i> (11)	<b>Fernando Hernando, Diego Ruano:</b> <i>Matrix product construction for nested codes</i> (3)
9:30	<b>Daniel Lichtblau:</b> <i>Exact Computation using Approximate Gröbner Bases</i> (9)	<b>Valentine D. Irtegov, Tatiana N. Titorenko:</b> <i>On invariant manifolds of conservative systems with 3-rd and 6-th degree first integrals</i> (6)	<b>Adam Strzebonski:</b> <i>Cylindrical Decomposition for Systems Transcendental in the First Variable</i> (11)	<b>Evangelos A. Coutsias, Michael J. Wester:</b> <i>Application of Dixon Resultants to Protein Structure Refinement</i> (1)
10:00	<b>Gema M. Diaz-Toca:</b> <i>Dynamic Galois Theory and Gröbner Basis</i> (9)	<b>Larisa A. Burlakova:</b> <i>On gyroscopic stabilization with the singular matrix of gyroscopic forces</i> (6)	<b>R. Liska, T. Peprny:</b> <i>Modified Equation of Complex Finite Difference Schemes/Taylor Series Processing of Pseudo-codes</i> (11)	<b>Veronika Pillwein:</b> <i>Symbolic Summation Algorithms for High Order Finite Element Basis Functions</i> (1)
10:30	<b>Coffee</b>			
11:00	<b>Robert Wilson:</b> <i>Involution centraliser methods in computational group theory</i> (15)	<b>O. Chuluunbaatar, V.P. Gerdt, A.A. Gusev, S.I. Vinitsky, P.M. Krassovitskiy:</b> <i>Calculation of the asymptotic expansion of continuous spectrum solutions of the two-dimensional boundary problem</i> (6)	<b>Ashish Tiwari:</b> <i>Deductive Components of Analyzers for Dynamical Systems</i> (11)	<b>Francisco Torrens, Gloria Castellano:</b> <i>Optimizing the Adsorption Partition Coefficient versus Ad-Molecule Charge</i> (1)
11:30	<b>Felix Noeske:</b> <i>The modular Atlas problems – tweaks and techniques</i> (15)	<b>Nikolay Vassiliev:</b> <i>On Complexity of Series Manipulations in Celestial Mechanics</i> (6)	<b>Stefan Ratschan:</b> <i>The Role of Constraint Solving in the Verification of Hybrid Systems</i> (11)	<b>Dmitry Chibisov, Ernst W. Mayr:</b> <i>Computing Minimum Time Motion for 6R Robots</i> (1)
12:00	<b>Lunch</b>			
13:30	<b>Willem de Graaf:</b> <i>Constructing generators of arithmetic subgroups of unipotent groups</i> (15)		<b>Armin Biere:</b> <i>Linear Algebra, Boolean Rings and Resolution?</i> (11)	<b>Jos Vermaseren:</b> <i>The parallel versions of FORM</i> (14)
14:00	<b>Alexander Luzgarev, Nikolai Vavilov:</b> <i>Calculations in exceptional groups</i> (15)	<b>Jos Vermaseren:</b> <i>FORM and Field Theory</i> (12)	<b>Evgeny Kruglov:</b> <i>Superposition Modulo Linear Arithmetic</i> (11)	<b>Gennadi Malaschonok, Mikhail Zueyv:</b> <i>Two recursive pivot-free algorithms for parallel matrix inversion</i> (14)
14:30	<b>Coffee</b>			

	Room A	Room B	Room C	Room D
15:00	<b>Dan Roozmond:</b> <i>Lie algebras over fields of small characteristic</i> (15)	<b>Stefan Weinzierl:</b> <i>Perturbative calculations with shuffle algebras and polylogs</i> (12)	<b>Tino Teige:</b> <i>Constraint-based Modeling and Verification of Hybrid Systems</i> (11)	<b>Shataro Inoue, Yosuke Sato:</b> <i>On the Parallel Computation of Boolean Gröbner Bases</i> (14)
15:30	<b>E. Schost, M.J. Wu, Xavier Dahan:</b> <i>Evaluation properties of invariant polynomials</i> (15)	<b>Sebastian Klein:</b> <i>Mathematical structure of heavy flavor operator matrix elements at <math>O(\alpha_s^2)</math> and beyond</i> (12)	<b>Uwe Waldmann:</b> <i>State Set Representations for Model Checking of Hybrid Systems with Large Discrete State Space</i> (11)	<b>Natasha Malaschonok:</b> <i>Solving differential equations by parallel Laplace method with assured accuracy</i> (14)
16:00	<b>Simon King:</b> <i>The cohomology of the groups of order 128</i> (15)	<b>Johannes Blümlein:</b> <i>Relations between Nested Multiple Harmonic Sums</i> (12)	<b>Viorica Sofronie-Stokkermans:</b> <i>Combining deduction in complex theories with quantifier elimination for the verification of parametric systems</i> (11)	<b>Abdallah Al Zain, Phil Trinder, Kevin Hammond:</b> <i>SymGrid-Par: A Generic Parallel Framework for Computational Algebra Systems</i> (14)
16:30	<b>Break</b>			
17:00	<b>Tateaki Sasaki, Daiju Inaba:</b> <i>Multivariate Hensel Construction in Roots</i> (13)	<b>Peter Paule:</b> <i>Special Functions &amp; Computer Algebra: New Methods and Paradigms</i> (12)	<b>Tudor Jebelean:</b> <i>Systematic Exploration of Mathematical Theories</i> (11)	<b>Alkiviadis Akritas, Yuri Valeev:</b> <i>Parallel implementation of Sendov's real root approximation method</i> (14)
17:30	<b>Matthias Dehmer:</b> <i>Location of Zeros of Univariate Complex Polynomials: Theory and Applications</i> (13)	<b>Flavia Stan:</b> <i>On Recurrences for Ising Integrals</i> (12)	<b>Session organizers:</b> <i>Concluding remarks</i> (11)	
18:00		<b>Carsten Schneider:</b> <i>Difference field algorithms for Quantum Field Theory</i> (12)		
18:45	<b>Closing</b>			