ACA 2003: Schedule of Sessions and Talks

(Last Updated July 22, 2003)

Session Number	Session Name	Organizers	# of Talks in Session
T1	Computational aspects of algebraic curves	Tony Shaska (UC Irvine)	11
T2	Symbolic Summation	Sergei A. Abramov (Moscow), Marko Petkovsek (Ljubljana), Eugene V. Zima (Waterloo)	7
T3	Computer Algebra in Education	Alkis Akritas (Thessaly, Greece), Michael Wester (New Mexico), Bill Pletsch (New Mexico)	7
T4	Computer Algebra in Science and Technology	Laurent Bernardin (Maplesoft), David Jeffrey (Western Ontario)	4
T5	Groebner Bases and Applications	Quoc-Nam Tran (Lamar University, USA) and Alexander Levin (Catholic University of America)	10
T6	Interval Computation	Ned Nedialkov (McMaster) and George Corliss (Marquette)	8
T8	Elimination Theory	Amit Khetan and Carlos D'Andrea (UC Berkeley, USA)	9
T9	Computer Algebra and Polynomial Systems in Chemistry	Karin Gatermann (Berlin)	5
T10	Symbolic Linear Algebra	B. David Saunders (Delaware) and Gilles Villard (ENS Lyon)	8
T11	Mathematics on the Internet	Mike Dewar (NAG, UK)	8
T12	Symbolic-Numeric methods for Curves and Surfaces	J. Schicho and Mohamed Shalaby (RISC Linz, Austria)	9
T13	Young Investigators	Mark Giesbrecht (Waterloo) and Stanly Steinberg (New Mexico)	7

Conference Overall Schedule

Date	July 28, 2003 Monday			July 29, 2003 Tuesday			July 30, 2003 Wednesday			July 31, 2003 Thursday
Start Time	A	B	C	A	B	C	A	B	C	
9:00	Official Opening			T5	T6	T8	RedHat Tour 			Panel Discussion
9:30	T1	T2	T3	T5	T6	T8				
10:00	T1	T2	T3	T5	T6	T8				
10:30	Break			Break						Trip to Wrightsville Beach
11:00	T1	T2	T3	T5	T6	T8	T12	T10	T11	
11:30	T1	T2	T3	T5	T6	T8	T12	T10	T11	
12:00	T1	T2	T3	T5	T6	T8	T12	T10	T11	
12:30	Lunch			Lunch			Lunch			
1:00										
1:30										
2:00	T1	T2	T3	T9	T6	T8	T12	T10	T11	
2:30	T1	T2	T3	T9	T6	T8	T12	T10	T11	
3:00	T1			T9	T4	T8	T12	T10	T11	
3:30	Break			Break			Break			
4:00	T1	T13	T4	T9	T5	T13	T12	T10	T11	
4:30	T1	T13	T4	T9	T5	T13	T12	T10	T11	
5:00	T1	T13	T4	T9	T5	T13	T12	T10		
5:30					T5	T13	ACA Business meeting			
	Activity			Activity (Banquet)			Activity			End of Conference

Monday July 28, 2003

Start Time	A	B	C
9:00	Official Opening		
9:30	B. Brock: *Moments associated to the moduli space of hyperelliptic curves over a finite field*	Juergen Gerhard, Ha Le *Symbolic summation in Maple*	Jerry Uhl, *Raising the Level of Precalculus Mathematics*
10:00	Burhanuddin, *On computing discrete logarithms in Formal groups and it's applications*	Burkhard Zimmermann, *Summation in DifferenceDifferential Rings*	Eugenio Roanes-Lozano & Eugenio Roanes-Macias, *Symbolic Manipulation in Projective Geometry through the Cooperation of Dynamic Geometry Systems and Computer Algebra Systems*
10:30	Break		
11:00	J. Wolper, *Theta Vanishings and Automorphism Groups of Riemann Surfaces of Genus Three*	Sergei A. Abramov, Marko Petkovsek *Gosper's and Zeilberger's algorithms revisited*	Laurent Bernardin, *A Look at the New Student Packages in Maple*
11:30	T. Shaska, *Computational Aspects of Algebraic Curves, a survey*	Daniel Lichtblau, *Issues in Symbolic Definite Integration*	Michel Beaudin, *Give Mathematics a Chance!*
12:00	C. Yin, *Special Loci in Moduli of Curves*	Carsten Schneider, *Symbolic Summation in #- #Fields*	Karsten Schmidt & Wolfgang Moldenhauer, *Using the TI-89 in Math Education - What are the Students' Views?*
12:30	Lunch		
2:00	M. Seppala, *Numerical uniformization of algebraic curves*	Victor Adamchik, *Symbolic Computation of Series and Products in Terms of the Multiple Gamma and Related Functions*	Bill Pletsch, *A CAS Lecture for the Calculus Students: The Riemann Product*
2:30	D. Mills, *Some Questions Regarding Avoidable Families of Sets*	Mark van Hoeij, *Rational definite summation*	Giovanna Albano & Matteo Desiderio, *An Effective Learning using CAS*
3:00	G. Cardona, *Curves of genus 2 over arbitrary fields*		
3:30	Break		
4:00	C. Hurlburt, *Computational Aspects of Differential Algebraic Geometry*	Young Investigator: Howard Cheng, *Algorithms for Normal Forms for Matrices of Ore Polynomials*	Paulina Chin, *Automatic Code Generation*
4:30	M. van Hoeij, *Reparametrizing rational algebraic curves*	Young Investigator: Yang Zhang, *Popov forms of Ore matrices*	Cecelia Laurie, *The Use of Maple in Computing DNA Match Probabilities.*
5:00	T. Yamauchi, *On Q-simple factors of J_0(N)*	Young Investigator: Alin Bostan, *Tellegen's principle into practice.*	Brian Moore, *Symofros: A symbolic modeling and simulation tool for mechanical system*
	Activity		

Tuesday July 29, 2003

Start Time	A	B	C
9:00	Yosuke Sato, *ACGB on Varities*	Ned Nedialkov, *Introduction to Interval Numerical Methods*	Agnes Szanto, *Elimination theory of non-commutative algebras of differential invariants*
9:30	Alexander Levin, *Groebner Bases w.r.t. Several Orderings and Difference Dimension Polynomials*	John Pryce, *Mapping Expressions to Functions in Cset Interval Arithmetic*	John Nahey, *Differential Resolvents of Minimal Order and Weight*
10:00	V. Mityunin, Pankratev, *Comparison of the parallellization quality of algorithms for computing Groebner and involutive bases*	Nathalie Revol, *Multiple Precision Interval Arithmetic and Application to Linear Systems*	Arthur Chtcherba, *Sylvester-type matrices via the Dixon resultant formulation and their optimizations*
10:30	Break		
11:00	Quoc-Nam Tran, *Efficient Groebner Basis Computation for Finding Implicit Representations of Geometric Objects*	Markus Neher, *From Intervals to Taylor Models: A Numeric Symbolic Approach to Validated Computation*	Manfred Minimair, *Developments in resultants of composed polynomials*
11:30	Martinez-Moro, *Using Groebner basis for determining the equivalence of linear codes.*	Jeff Tupper, *Pictures from Proofs: Sound Graphing Algorithms*	Amit Khetan, *Implicitization of rational surfaces using toric varieties*
12:00	Ekaterina Shemyakova, *Graphs of involutive divisions*	Ekaterina Auer, *Interval Arithmetic in the Multibody Modeling System MOBILE*	Laurent Busé, *Implicitizing rational hypersurfaces using approximation complexes*
12:30	Lunch		
2:00	Anke Sensse, *Electrocatalytic oxidation of formic acid*	Yves Papegay, *ALIAS: A Library Mixing Interval Analysis and Computer Algebra*	Marc Moreno Maza, *Recent advances in triangular decomposition methods*
2:30	Brandilyn Stigler, *Polynomial Models for Gene Regulatory Networks*	Stan Wagon, *The Role of Symbolic Computation in the SIAM/Oxford 100-Digit Challenge*	Ilias Kotsireas, *Recent advances in polynomial system solving and an application in Chaos Theory*
3:00	Karin Gatermann, *Positive solutions of systems with mass action kinetics*	Joseph Schicho, *Improving the element pre-conditioning method by symbolic computation*	Ming Zhang, *An Approximation Approach to Molecular Conformational Search*
3:30	Break		
4:00	Carsten Conradi, *Model Discrimination using Algebraic Geometry and Computer Algebra Systems*	Jeff Farr, Shuhong Gao, *Computing Groebner Bases for Vanishing Ideals of Finite Sets of Points*	Young Investigator: Alexey Ovchinnikov, Moscow State University, *Characterizable Radical Differential Ideals and Characteristic Sets*
4:30	David M. Malonza, *Groebner basis methods in Symbolic Computation of Invariants and Equivariants applied to Normal forms of Non linear Systems with Nilpotent linear part*	Aleksandra Slavkovic: *An Application of Algebraic Geometry in Statistical Disclosure Limitation*	Young Investigator: Hirokazu Anai, *On Solving Real Algebraic Constraints in System and Control Theory*
5:00	Bill Pletsch, *Investigating Young Group Double Cosets with Computer Algebra: Latest Advances with Some Proofs*	Quoc-Nam Tran, *A Maple package for fast conversion of Groebner bases*	Young Investigator: Virginia Rodrigues, *Grobner Basis Structure of Finite Sets of Points.*
5:30		Éric Schost, Erwan Le Pennec, *Computing foveal wavelets*	Young Investigator: Ana Gonzalez-Uriel, *Expert System for House Layout Selection*
	Activity: Banquet Dinner Speaker: Eugenio Roanes-Lozano		

Wednesday July 30, 2003

Start Time	A	B	C
9:00	**Redhat Tour** 		
9:30			
10:00			
10:30			
11:00	Rida Farouki, *Minkowski geometric algebra of complex sets.*	Bradford Hovinen, *On Montgomery's Block Lanczos Algorithm*	Laurent Bernardin, *Maple on the Web*
11:30	Lihong Zhi, *A complete symbolic-numeric linear method for camera pose determination.*	Victor Pan, *Nearly Optimal Toeplitz/Hankel Computations*	Stephen Buswell, *MathML, OpenMath and the Evolution of Maths on the Web*
12:00	John May, *Bounding the Radius of Irreducibility of Multivariate Polynomials.*	Shuhong Gao, *Random Krylov spaces over finite fields*	Olga Caprotti, *Mathematical Services Registration and Discovery*
12:30	Lunch		
2:00	Mohamed Shalaby, *Spline Implicitization of Planar Curves*	Wayne Eberly, *On the Reliability of Block Lanczos Algorithms*	James Davenport, *Mathematical Knowledge Management.*
2:30	Wen-shin Lee, *Symbolic-Numeric Sparse Interpolation of Multivariate Polynomials.*	Pascal Giorgi, *From BLAS routine to finite field exact linear algebra solution*	Mike Dewar, *OpenMath and Web Services.*
3:00	Bohumir Bastl, *Symbolic-numeric method for computing surface self-intersection.*	Keith Geddes, *Exploiting Fast Hardware Floating Point in High Precision Computation*	Mika Seppälä, *Advanced Learning Technologies Project.*
3:30	Break		
4:00	Ilias S. Kotsireas, *Implicit Polynomial Support Optimized for Sparseness.*	B. David Saunders, *Rank and Smith Form of extremely sparse matrices*	Clare M. So and Stephen M. Watt, *Conversion Between Content MathML and OpenMath*
4:30	Elisabeth Malsch, *A symbolic method for defining test functions which satisfy ellipticity, boundary conditions lower order field behaviors exactly.*	Robert Lewis, *Using the Dixon Resultant on Big Problems*	Tom Wickham-Jones, *Math on the Web with Mathematica Technology.*
5:00	Daniel Lichtblau, *Computational algebra visits number theory: Trigonometric polynomials, planar extremal packings, and Groebner bases.*	Arne Storjohann, *Effective reductions to matrix multiplication*	
5:30	ACA Business Meeting		

Thursday July 31, 2003

Start Time	
9:00	**Panel Discussion**
9:30	
10:00	
10:30	**Trip to Wrightsville Beach (see Events Page)**