

**AAA**  
**Arbeitstagung Allgemeine Algebra**  
**Workshop on General Algebra**

AAA61  
 February 2 - 4, 2001

**Program**

**Friday, February 2**

Room 223 Chair: Rudolf Wille

14.00 **Gunther Schmidt**

*Promising applications of relation algebra in computer science*

Room 223

Chair: Roger D. Maddux

Room 123

Chair: Klaus Keimel

**Relational algebra in computer science**

**Rings**

15.00 Joachim Hereth Correia

*Algebraic Treatment of Database*

*Relations*

Sergei Limarenko

*Density Theorems for Super-Rings*

15.25 Rudolf Wille

*Contextual Relation Algebra*

Gunter F. Pilz

*Rings and near-rings in systems theory*

15.50 Break

Room 223

Chair: Frithjof Dau

Room 123

Chair: Klaus Denecke

Room 112

Chair: Harald Gropp

**Lattices**

**Coalgebras**

**Discrete mathematics**

16.50 Sandor Radeleczki

*Classification Systems*

H. Peter Gumm

*Monoid labeled transition systems*

A. G. Kolpakov

*The discrete convex combinations problem*

17.15 Leonard Kwuida

*Dicomplemented lattices: representation theorem*

Michael Damm

*On check digit systems using totally antisymmetric quasigroups*

I. G. Sheremet

*The convex combinations problem*

17.40	Vladimir Slezak <i>The context of independent sets Defined on special lattices</i>	Tobias Schröder <i>Distributivity of Categories of Coalgebras</i>
18.05	Marcelo Frias <i>Interpretability of First-Order Dynamic Logic in an Extension of Fork Algebras</i>	Ewa Graczynska <i>Completeness of Unary Coalgebras</i>

**Saturday, February 3**

Room 223	Chair: Peter Burmeister
9.00	<b>Ildiko Sain</b> <i>Recent trends and applications in definability theory</i>

Room 223	Chair: Silke Pollandt	Room 123	Chair: Erhard Aichinger
<b>Relational algebra in computer science</b>		<b>General Algebra</b>	
10.00	Reinhard Pöschel <i>Operations and – and on – relations</i>	Ivan Chajda <i>Duality of normally presented varieties</i>	
10.25	Ferdinand Börner <i>Representations of countable Krasneralgebras</i>	Radomir Halas <i>A triplet construction for modular posets</i>	

10.50 Break

Room 223	Room 123	Room 112	
Chair: Bernhard Ganter	Chair: Ondrej Klima	Chair: Josef Slapal	
<b>Formal Concept Analysis</b>	<b>Semigroups</b>	<b>Topology/Categories</b>	
11.45	Sergei O. Kuznetsov <i>Pattern Structures and their Projections</i>	Libor Polak <i>Relationships between classifications. of regular languages by their ordered syntactic monoids and semilattice-ordered syntactic monoids</i>	Alex J. Lemin <i>Treelike lattices and ultrametric spaces</i>

12.10	Christian Sacarea <i>Towards a Contextual Topology</i>	Alexei Vernitski <i>Algebras of Semigroup Formulae</i>	Jan Paseka <i>Bicategories of quantales</i>
12.35	Katja Lengnink <i>Polythetic Concepts</i>	Akihiro Yamamura <i>Van Kampen diagrams and E-unitary extensions</i>	Tobias Rieck <i>Morita Equivalence for Monoids</i>
13.00	Break		
	Room 223    Chair: Heinz-Peter Gumm		
15.00	<b>Roger D. Maddux</b> <i>Constraint Satisfaction Problems</i>		

	Room 223	Chair: Ferdinand Börner	Room 123	Chair: Radomir Halas
	<b>Relational algebra in computer science</b>		<b>General algebra</b>	
16.00	Frithjof Dau <i>Concept graphs as propositions of first- order logic</i>		Mikhail Klin <i>Algebraic and combinatorial isomor- phisms of coherent configurations</i>	
16.25	Silke Pollandt <i>Relational constructions on power context families and semiconcept graphs</i>		V.G. Boitsov <i>Explicit formulas for the Kurihara's homomorphism</i>	
16.50	Break			
	Room 223	Room 123	Room 11:	
	Chair: Ivan Chajda	Chair: Libor Polak	Chair: Mikhail Klin	
	<b>Partial algebras</b>	<b>Semigroups</b>	<b>Discrete mathematics</b>	
17.45	Peter Burmeister <i>The epimorphic images of the free OMA with three generators</i>	I. A. Ivanov <i>The construction of finitely-defined semi- groups, satisfying some exotic properties</i>	Andrei Bulatov <i>Algebraic structures in combinatorial problems</i>	
18.10	Richard Holzer <i>Orthomodular partial algebras</i>	Elena Rudo <i>Isomorphic representations of of semigroups by bicharacters</i>	Harald Gropp <i>Orbital matrices and graph theory – a project for the next century</i>	

18.35	Josef Slapal	Vladimir A. Molchanov	Aiso Heinze
-	<i>Cartesian closedness in</i>	<i>Matrix extension of binary</i>	<i>Small strongly regular</i>
19.00	<i>categories of partial</i>	<i>relation semigroup and its</i>	<i>graphs and corresponding</i>
	<i>algebras</i>	<i>application to the theory of</i>	<i>partial difference</i>
		<i>words on finite automata</i>	<i>sets – a survey</i>
		<i>and semigroups</i>	

**Sunday, February 4**

	Room 223	Chair: Gunther Schmidt	Room 123	Chair: Ewa Graczyńska
	<b>Relational algebra in computer science</b>		<b>Hyperidentities</b>	
9.00	Bernhard Ganter		Klaus Denecke	<i>Equational Theories</i>
	<i>Drawing lattice diagrams</i>			<i>generated by Hypersubstitutions</i>
9.25	Robin Hirsch		Shelly L. Wismath	
	<i>Strongly representable relation algebra</i>		<i>Solid Varieties of Type (n)</i>	
		<i>atom structures</i>		
9.50	D. A. Bredikhin		Jörg Koppitz	
	<i>On the variety generated by positive</i>		<i>Infinite Chains of Solid Varieties of</i>	
	<i>reducts of Tarski's relation algebras</i>		<i>Arbitrary Types</i>	
10.15	Michael Winter		Slavcho Shtrakov	
	<i>A necessary relation algebra for</i>		<i>Algorithms for Depth and Size of</i>	
		<i>mereotopology</i>	<i>Hypersubstitutions</i>	
10.40	Break			
	Room 223	Room 123	Room 112	
	Chair: Reinhard Pöschel	Chair: Gunter F. Pilz	Chair: Richard Holzer	
	<b>General algebra</b>	<b>Rings</b>	<b>Groupoids</b>	
11.40	Erhard Aichinger	Hippolyte Hounnon	Lidija Goracinova Ilieva	
	<i>The polynomial functions</i>	<i>On Presolid Varieties of</i>	<i>Groupoids with the</i>	
	<i>of certain algebras</i>	<i>Semirings</i>	<i>identity (xy)y = yx</i>	

12.05	Danica Jakubikova- Studenovska <i>Antiatomic retract varieties of monounary algebras</i>	Pudji Astuti <i>Stacked bases theorems for finitely generated primary modules over a principal ideal domain</i>	Adam Marczak <i>Square extension of a groupoid</i>
12.30	Boza Tasic - <i>A note on homomorphic images, subalgebras and various products</i>	Irawati <i>Finite length modules over HNP ring</i>	Ondrej Klima <i>Complexity of unification and matching problems in the varieties of bands</i>

Room 223 Chair: Reinhard Pöschel

13.00 **Concluding Discussion**

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13.30