

Table of Contents

Invited Paper

Combining Logic and Optimization in Cutting Plane Theory	1
<i>Alexander Bockmayr and Friedrich Eisenbrand</i>	

Session 1

Towards Cooperative Interval Narrowing	18
<i>Laurent Granvilliers</i>	
Integrating Constraint Solving into Proof Planning	32
<i>Erica Melis, Jürgen Zimmer, and Tobias Müller</i>	
Termination of Constraint Contextual Rewriting	47
<i>Alessandro Armando and Silvio Ranise</i>	

Invited Paper

Axioms vs. Rewrite Rules: From Completeness to Cut Elimination	62
<i>Gilles Dowek</i>	

Session 2

Normal Forms and Proofs in Combined Modal and Temporal Logics	73
<i>U. Hustadt, C. Dixon, R. A. Schmidt, and M. Fisher</i>	
Structured Sequent Calculi for Combining Intuitionistic and Classical First-Order Logic	88
<i>Paqui Lucio</i>	

Session 3

Handling Differential Equations with Constraints for Decision Support	105
<i>Jorge Cruz and Pedro Barahona</i>	
Non-trivial Symbolic Computations in Proof Planning	121
<i>Volker Sorge</i>	
Integrating Computer Algebra and Reasoning through the Type System of Aldor	136
<i>Erik Poll and Simon Thompson</i>	

Invited Paper

Combinations of Model Checking and Theorem Proving 151
Tomás E. Uribe

Session 4

Compiling Multi-paradigm Declarative Programs into Prolog 171
Sergio Antoy and Michael Hanus

Modular Redundancy for Theorem Proving 186
Miquel Bofill, Guillem Godoy, Robert Nieuwenhuis, and Albert Rubio

Composing and Controlling Search in Reasoning Theories Using Mappings 200
*Alessandro Coglio, Fausto Giunchiglia, José Meseguer, and
Carolyn L. Talcott*

Invited Paper

Why Combined Decision Problems Are Often Intractable 217
Klaus U. Schulz

Session 5

Congruence Closure Modulo Associativity and Commutativity 245
L. Bachmair, I. V. Ramakrishnan, A. Tiwari, and L. Vigneron

Combining Equational Theories Sharing Non-Collapse-Free Constructors . . 260
Franz Baader and Cesare Tinelli

Comparing Expressiveness of Set Constructor Symbols 275
Agostino Dovier, Carla Piazza, and Alberto Policriti

Author Index 291