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Nota di contenuto	Invited Paper -- Combining Logic and Optimization in Cutting Plane Theory -- Session 1 -- Towards Cooperative Interval Narrowing -- Integrating Constraint Solving into Proof Planning -- Termination of Constraint Contextual Rewriting -- Invited Paper -- Axioms vs. Rewrite Rules: From Completeness to Cut Elimination -- Session 2 -- Normal Forms and Proofs in Combined Modal and Temporal Logics -- Structured Sequent Calculi for Combining Intuitionistic and Classical First-Order Logic -- Session 3 -- Handling Differential Equations with Constraints for Decision Support -- Non-trivial Symbolic Computations in Proof Planning -- Integrating Computer Algebra and Reasoning through the Type System of Aldor -- Invited Paper -- Combinations of Model Checking and Theorem Proving -- Session 4 -- Compiling Multi-paradigm Declarative Programs into Prolog -- Modular Redundancy for Theorem Proving -- Composing and Controlling Search in Reasoning Theories Using Mappings -- Invited Paper -- Why Combined Decision Problems Are Often Intractable -- Session 5 -- Congruence Closure Modulo Associativity and Commutativity -- Combining Equational

Sommario/riassunto

This volume contains the proceedings of FroCoS2000, the 3rd International Workshop on Frontiers of Combining Systems, held March 22-24, 2000, in Nancy, France. Like its predecessors organized in Munich (1996) and in Amsterdam (1998), FroCoS2000 is intended to offer a common forum for research activities related to the combination and the integration of systems in the areas of logic, automated deduction, constraint solving, declarative programming, and artificial intelligence. There were 31 submissions of overall high quality, authored by researchers from countries including Australia, Brasil, Belgium, Chili, France, Germany, - pan, Ireland, Italy, Portugal, Spain, Switzerland, The Netherlands, the United Kingdom, and the United States of America. All submissions were thoroughly evaluated on the basis of at least three referee reports, and an electronic program committee meeting was held through the Internet. The program committee selected 14 research contributions. The topics covered by the selected papers include: combination of logics; combination of constraint solving techniques; combination of decision procedures; modular properties for theorem proving; combination of deduction systems and computer algebra; integration of decision procedures and other solving processes into constraint programming and deduction systems. We welcomed five invited lectures by Alexander Bockmayr on "Combining Logic and Optimization in Cutting Plane Theory", Gilles Dowek on "Axioms vs. Rewrite Rules: From Completeness to Cut Elimination", Klaus Schulz on "Why Combined Decision Problems Are Often Intractable", Tomas Uribe on "Combinations of Theorem Proving and Model Checking", and Richard Zippel on "Program Composition Techniques for Numerical PDE Codes". Full papers of these lectures, except the last one, are also included in this volume.
