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Soggetti	Programming languages (Electronic computers) Artificial intelligence Logic, Symbolic and mathematical Computer logic Programming Languages, Compilers, Interpreters Artificial Intelligence Mathematical Logic and Formal Languages Logics and Meanings of Programs Mathematical Logic and Foundations
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Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Papers -- Local Reasoning about Programs that Alter Data Structures -- Applications of Alfred Tarski's Ideas in Database Theory -- Locus Solum: From the Rules of Logic to the Logic of Rules -- Contributed Papers -- The Expressive Power of Horn Monadic Linear Logic -- Non-commutativity and MELL in the Calculus of Structures -- Quadratic Correctness Criterion for Non-commutative Logic -- Descriptive Complexity -- Capture Complexity by Partition -- An Existential Locality Theorem -- Actual Arithmetic and Feasibility -- The Natural Order-Generic Collapse for ?-Representable Databases over the Rational and the Real Ordered Group -- Semantics -- An Algebraic Foundation for Higraphs -- Semantic Characterisations of Second-Order Computability over the Real Numbers -- An Abstract Look at Realizability -- The Anatomy of Innocence -- Higher-Order Programs

-- An Improved Extensionality Criterion for Higher-Order Logic Programs -- A Logic for Abstract State Machines -- Constrained Hyper Tableaux -- Modal Logics -- Modal Logic and the Two-Variable Fragment -- A Logic for Approximate First-Order Reasoning -- Inflationary Fixed Points in Modal Logic -- Categorical and Kripke Semantics for Constructive S4 Modal Logic -- Verification -- Labelled Natural Deduction for Interval Logics -- Decidable Navigation Logics for Object Structures -- The Decidability of Model Checking Mobile Ambients -- Automata -- A Generalization of the Büchi-Elgot-Trakhtenbrot Theorem -- An Effective Extension of the Wagner Hierarchy to Blind Counter Automata -- Decision Procedure for an Extension of WS1S -- Lambda-Calculus -- Limiting Partial Combinatory Algebras towards Infinitary Lambda-Calculi and Classical Logic -- Intersection Logic -- Life without the Terminal Type -- Fully Complete Minimal PER Models for the Simply Typed  $\lambda$ -Calculus -- Induction -- A Principle of Induction -- On a Generalisation of Herbrand's Theorem -- Well-Founded Recursive Relations -- Equational Calculus -- Stratified Context Unification Is in PSPACE -- Uniform Derivation of Decision Procedures by Superposition -- Complete Categorical Equational Deduction -- Beyond Regularity: Equational Tree Automata for Associative and Commutative Theories -- Constructive Theory of Types -- Normalized Types -- Markov's Principle for Propositional Type Theory -- Recursion for Higher-Order Encodings -- Monotone Inductive and Coinductive Constructors of Rank 2.

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## Sommario/riassunto

The Annual Conference of the European Association for Computer Science Logic, CSL 2001, was held in Paris, Palais de la Mutualité, on September 10-13, 2001. This was the 15th in a series of annual meetings, originally intended as International Workshops on Computer Science Logic, and the 10th to be held as the Annual Conference of the EACSL. The conference was organized by Laboratoire Spécification et Vérification (CNRS & ENS Cachan). The CSL 2001 program committee selected 39 of 91 submitted papers for presentation at the conference and publication in this proceedings volume. The submitted papers originated from 26 different countries.

Each paper was refereed by at least three reviewers. In addition to the contributed papers, the scientific program of CSL 2001 included three invited talks (Jean-Yves Girard, Peter O'Hearn, and Jan Van den Bussche). This volume includes the papers provided by the invited speakers as well as the selected contributed papers. The topics of the papers include: linear logic, descriptive complexity, semantics, higher-order programs, modal logics, verification, automata,  $\lambda$ -calculus, induction, equational calculus, and constructive theory of types. I am most grateful to the members of the program committee and all the referees for their thorough work. I am also particularly indebted to François Laroussinie, helped by Patricia Bouyer, Nicolas Markey, and Philippe Schnobelen, for the successful organization of this event. Special thanks to Emmanuel Fleury for the design of the beautiful "Notre-Dame de Paris" poster.

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