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This volume contains the refereed proceedings of the 12th International Conference on Logic Programming and Nonmonotonic Reasoning, LPNMR 2013, held in September 2013 in Corunna, Spain. The 34 revised full papers (22 technical papers, 9 application description, and 3 system descriptions) and 19 short papers (11 technical papers, 3 application descriptions, and 5 system descriptions) presented together with 2 invited talks, were carefully reviewed and selected from 91 submissions. Being a forum for exchanging ideas on declarative logic programming, nonmonotonic reasoning, and knowledge representation, the conference aims to facilitate interactions between those researchers and practitioners interested in the design and implementation of logic-based programming languages and database systems, and those who work in the area of knowledge representation and nonmonotonic reasoning.

Topics covered: Theoretical Foundations. Higher-Order Logics. Non-Monotonic Reasoning. Programming Methodology. Programming Environments. Extensions to Logic Programming. Constraint

Satisfaction. Meta-Programming. Language Design and Constructs. Implementation of Logic Programming Languages. Compilation Techniques. Architectures. Parallelism. Reasoning about Programs. Deductive Databases. Applications. 13-16 June 1995, Tokyo, Japan ICLP, which is sponsored by the Association for Logic Programming, is one of two major annual international conferences reporting recent research results in logic programming. Logic programming originates from the discovery that a subset of predicate logic could be given a procedural interpretation which was first embodied in the programming language, Prolog. The unique features of logic programming make it appealing for numerous applications in artificial intelligence, computer-aided design and verification, databases, and operations research, and for exploring parallel and concurrent computing. The last two decades have witnessed substantial developments in this field from its foundation to implementation, applications, and the exploration of new language designs. Topics covered: Theoretical Foundations. Higher-Order Logics. Non-Monotonic Reasoning. Programming Methodology. Programming Environments. Extensions to Logic Programming. Constraint Satisfaction. Meta-Programming. Language Design and

Constructs. Implementation of Logic Programming Languages. Compilation Techniques. Architectures. Parallelism. Reasoning about Programs. Deductive Databases. Applications. Logic Programming series, Research Reports and Notes

This volume contains the proceedings of the 19th International Conference on Logic Programming, ICLP 2003, which was held at the Tata Institute of Fundamental Research in Mumbai, India, during 9-13 December, 2003. ICLP 2003 was colocated with the 8th Asian Computing Science Conference, ASIAN 2003, and was followed by the 23rd Conference on Foundations of Software Technology and Theoretical Computer Science, FSTTCS 2003. The latter event was hosted by the Indian Institute of Technology in Mumbai. In addition, there were several satellite workshops associated with ICLP 2003: - PPSWR 2003, Principles and Practice of Semantic Web Reasoning, 8th Dec. 2003, organized by François Bry, Nicola Henze, and Jan Maluszynski. - COLOPS 2003, Constraint & Logic Programming in Security, 8th Dec. 2003, organized by Martin Leucker, Justin Pearson, Fred Spiessens, and Frank D. Valencia. - WLPE 2003, Workshop on Logic Programming Environments, organized by Alexander Serebrenik and Fred Mesnard. -

CICLOPS2003, Implementation of Constraint and Logic Programming Systems, 14th Dec. 2003, organized by Michel Ferreira and Ricardo Lopes.
- SVV 2003, Software Verification and Validation, 14th Dec. 2003, organized by Sandro Etalle, Supratik Mukhopadhyay, and Abhik Roychoudhury.

This volume constitutes the proceedings of the 6th International Symposium on Programming Language Implementation and Logic Programming (PLILP '94), held in Madrid, Spain in September 1994. The volume contains 27 full research papers selected from 67 submissions as well as abstracts of full versions of 3 invited talks by renowned researchers and abstracts of 11 system demonstrations and poster presentations. Among the topics covered are parallelism and concurrency; implementation techniques; partial evaluation, synthesis, and language issues; constraint programming; meta-programming and program transformation; functional-logic programming; and program analysis and abstract interpretation.

Proceedings of the Twelfth International Conference on Logic Programming

Normalization and Partial Evaluation of Functional Logic Programs

Proceedings of the Third International Workshop 10–13 January 1989,
Newcastle, Australia

Complexity, Analysis, Transformation. Essays Dedicated to Neil D.
Jones

Rule-Based Reasoning, Programming, and Applications

Functional and Constraint Logic Programming

6th International Symposium, PLILP '94, Madrid, Spain, September 14 -
16, 1994. Proceedings

This monograph is the first comprehensive study of the design, application, and implementation of Pandora, a new parallel logic programming language. Pandora combines stream and-parallelism with don't-know non-determinism in a unified and efficient manner. As a result, it provides a programming paradigm of non-deterministic concurrent communicating processes, which opens up interesting application areas that cannot conveniently be expressed in existing logic programming languages. The author describes the use of Pandora for constraint programming, solving resource allocation problems, heuristic search, and distributed discrete event simulation. The final chapters describe in detail the implementation of Pandora on single- as well as multi-processor architectures. The volume is aimed at the community of logic programming students and professionals, as well as researchers and professionals in artificial intelligence. It will

also be of great interest to researchers in programming language design and parallel processing.

This book constitutes the refereed proceedings of the 6th International Symposium on Functional and Logic Programming, FLOPS 2002, held in Aizu, Japan, in September 2002. The 15 revised full papers presented together with 3 full invited papers were carefully reviewed and selected from 27 submissions. The papers are organized in topical sections on constraint programming, program transformation and analysis, semantics, rewriting, compilation techniques, and programming methodology.

This book constitutes the refereed proceedings of the 16th International Conference on Automated Deduction, CADE-16, held in Trento, Italy in July 1999 as part of FLoC'99. The 21 revised full papers presented were carefully reviewed and selected from a total of 83 submissions. Also included are 15 system descriptions and two invited full papers. The book addresses all current issues in automated deduction and theorem proving, ranging from logical foundations to deduction systems design and evaluation

This book constitutes the thoroughly refereed post-conference proceedings of the 16th International Conference on Logic for Programming, Artificial Intelligence, and Reasoning, LPAR 2010, which took place in Dakar, Senegal, in April/May 2010. The 27 revised full papers and 9 revised short papers presented together with 1 invited talk were carefully revised and selected from 47 submissions. The papers address all current issues in automated reasoning, computational logic, programming languages

and deal with logic programming, logic-based program manipulation, formal methods, and various kinds of AI logics. Subjects covered range from theoretical aspects to various applications such as automata, linear arithmetic, verification, knowledge representation, proof theory, quantified constraints, as well as modal and temporal logics.

P-Prolog, a Parallel Logic Programming Language

Algebraic Methodology and Software Technology

The Essence of Computation

Logic Programming

Essays in Honour of Robert A. Kowalski, Part I

Logic for Programming, Artificial Intelligence, and Reasoning

Logics in Artificial Intelligence

The functional logic programming paradigm combines the two most important fields of declarative programming, namely functional and logic programming, in an integrated way to allow the concise notation of high-level programs. However, the variety of concepts and conciseness of programs may also impact their efficiency. In this work we employ the powerful optimization technique of partial evaluation to develop a fully automatic program optimizer, the so-called partial evaluator. In particular, we formalize the normalization of programs during compilation, establish a formal notation of the evaluation process, develop a formal partial evaluation scheme and prove its correctness and termination, and implement a working partial evaluator which shows

impressive results.

Content Description #Includes bibliographical references and index.

This book presents the first attempt to combine concurrent logic programming and constraint logic programming. It is divided into three parts. In the first part, a novel computation model, called the multi-Pandora model, which is designed on the basis of the Pandora model, is presented. In the second part, the distributed implementation schemes for Parlog, Pandora, and multi-Pandora are presented. Finally, the author presents the distributed constraint solvers for finite domain constraints, as well as the distributed constraint solvers in the domains of real numbers and Boolean rings which can be incorporated into the schemes presented in the second part to handle the ?ask?- and ?tell?-constraints.

This book constitutes the refereed proceedings of the 5th International Symposium on Rules, RuleML 2011 - Europe, held in Barcelona, Spain, in July 2011 - collocated with the 22nd International Joint Conference on Artificial Intelligence, IJCAI 2011. It is the first of two RuleML events that take place in 2011. The second RuleML Symposium - RuleML 2011 - America - will be held in Fort Lauderdale, FL, USA, in November 2011. The 18 revised full papers, 8 revised short papers and 3 invited track papers presented together with the abstracts of 2 keynote talks were carefully reviewed and selected from 58 submissions. The papers are organized in the following topical sections: rule-based distributed/multi-agent systems; rules, agents and norms; rule-based event processing and reaction rules; fuzzy rules and uncertainty; rules and the semantic Web; rule learning and extraction; rules and reasoning; and rule-based applications.

Non-deterministic Concurrent Logic Programming in Pandora

International Workshop, Tübingen, FRG, December 8-10, 1989. Proceedings

5th International Symposium, FLOPS 2001, Tokyo, Japan, March 7-9, 2001. Proceedings

17th International Conference, ICLP 2001, Paphos, Cyprus, November 26 - December 1, 2001. Proceedings

10th International Symposium, SAS 2003, San Diego, CA, USA, June 11-13, 2003.

Proceedings

Persistent Object Systems

By presenting state-of-the-art aspects of the theory of computation, this book commemorates the 60th birthday of Neil D. Jones, whose scientific career parallels the evolution of computation theory itself. The 20 reviewed research papers presented together with a brief survey of the work of Neil D. Jones were written by scientists who have worked with him, in the roles of student, colleague, and, in one case, mentor. In accordance with the Festschrift's subtitle, the papers are organized in parts on computational complexity, program analysis, and program transformation.

This book contains the refereed proceedings of the 23rd International Conference on Logic Programming, ICLP 2007, held in Porto, Portugal. The 22 revised full papers together with two invited talks, 15 poster presentations, and the abstracts of five doctoral consortium articles cover all issues of current research in logic programming, including theory, functional and constraint logic

programming, program analysis, answer-set programming, semantics, and applications.

This book constitutes the strictly refereed post-workshop proceedings of the Sixth International Workshop on Logic Program Synthesis and Transformation, LOPSTR'96, held on board a ship sailing from Stockholm to Helsinki, in August 1996. The 17 revised full papers were carefully selected from a total of initially 27 submissions. The topics covered range over the areas of synthesis of programs from specifications, verification, transformation, specialization, and analysis of programs, and the use of program schemata in program development.

This volume constitutes the proceedings of the Fourth International Conference on Algebraic and Logic Programming (ALP '94), held in Madrid, Spain in September 1994. Like the predecessor conferences in this series, ALP '94 succeeded in strengthening the cross-fertilization between algebraic techniques and logic programming. Besides abstracts of three invited talks, the volume contains 17 full revised papers selected from 41 submissions; the papers are organized into sections on theorem proving, narrowing, logic programming, term rewriting, and higher-order programming.

Proceedings of LOPSTR 93, International Workshop on Logic Program Synthesis and Transformation, Louvain-la-Neuve, Belgium, 7-9 July 1993

STACS 96

Functional and Logic Programming

12th International Workshop, LOPSTR 2002, Madrid, Spain, September 17-20,

2002, Revised Selected Papers

16th International Conference on Automated Deduction, Trento, Italy, July 7-10, 1999, Proceedings

Proceedings of the 1999 International Conference on Logic Programming Automated Deduction - CADE-16

Includes tutorials, lectures, and refereed papers on all aspects of logic programming, including theoretical foundations, constraints, concurrency and parallelism, deductive databases, language design and implementation, nonmonotonic reasoning, and logic programming and the Internet. The International Conference on Logic Programming, sponsored by the Association for Logic Programming, includes tutorials, lectures, and refereed papers on all aspects of logic programming, including theoretical foundations, constraints, concurrency and parallelism, deductive databases, language design and implementation, nonmonotonic reasoning, and logic programming and the Internet.

This volume contains finalized versions of papers presented at an international workshop on extensions of logic programming, held at the Seminar for Natural Language Systems at the University of Tübingen in December 1989. Several recent extensions of definite Horn clause programming, especially those with a proof-theoretic background, have much in common. One common thread is a new emphasis on hypothetical reasoning, which is typically inspired by Gentzen-style sequent or natural deduction systems. This is not only of theoretical significance, but also bears upon computational issues. It was one purpose of the workshop to bring some of these recent developments together. The volume covers topics such as the languages Lambda-Prolog, N-Prolog, and GCLA, the relationship between logic programming and functional

programming, and the relationship between extensions of logic programming and automated theorem proving. It contains the results of the first conference concentrating on proof-theoretic approaches to logic programming.

The refereed proceedings of the 10th International Symposium on Static Analysis, SAS 2003, held in San Diego, CA, USA in June 2003 as part of FCRC 2003. The 25 revised full papers presented together with two invited contributions were carefully reviewed and selected from 82 submissions. The papers are organized in topical sections on static analysis of object-oriented languages, static analysis of concurrent languages, static analysis of functional languages, static analysis of procedural languages, static data analysis, static linear relation analysis, static analysis based program transformation, and static heap analysis.

This two-volume set LNCS 9094 and LNCS 9095 constitutes the thoroughly refereed proceedings of the 13th International Work-Conference on Artificial Neural Networks, IWANN 2015, held in Palma de Mallorca, Spain, in June 2013. The 99 revised full papers presented together with 1 invited talk were carefully reviewed and selected from 195 submissions. The papers are organized in topical sections on brain-computer interfaces: applications and tele-services; multi-robot systems: applications and theory (MRSAT); video and image processing; transfer learning; structures, algorithms and methods in artificial intelligence; interactive and cognitive environments; mathematical and theoretical methods in fuzzy systems; pattern recognition; embedded intelligent systems; expert systems; advances in computational intelligence; and applications of computational intelligence.

Algebraic and Logic Programming

13th Annual Symposium on Theoretical Aspects of Computer Science, Grenoble, France,

February 22-24, 1996. Proceedings

6th International Workshop, LOPSTR'96, Stockholm, Sweden, August 28-30, 1996, Proceedings

19th International Conference, ICLP 2003, Mumbai, India, December 9-13, 2003, Proceedings

16th International Conference, LPAR-16, Dakar, Senegal, April 25--May 1, 2010, Revised Selected Papers

Computational Logic: Logic Programming and Beyond

Advances in Computational Intelligence

This book constitutes the thoroughly refereed post-conference proceedings of the 18th International Workshop on Functional and Constraint Logic Programming, WFLP 2009, held in Brasilia, Brazil, in June 2009 as part of RDP 2009, the Federated Conference on Rewriting, Deduction, and Programming. The 9 revised full papers presented together with 2 invited papers were carefully reviewed and selected from 14 initial workshop contributions. The papers cover current research in all areas of functional and constraint logic programming including typical areas of interest, such as foundational issues, language design, implementation, transformation and analysis, software engineering, integration of paradigms, and applications.

Algebraic and Logic Programming 4th International Conference, ALP

'94, Madrid, Spain, September 14-16, 1994. Proceedings Springer Science & Business Media

This volume contains the papers from the Seventh International Workshop on Logic Program Synthesis and Transformation, LOPSTR '97, that took place in Leuven, Belgium, on July 10-12, 1997, 'back to back' with the Fourteenth International Conference on Logic Programming, ICLP '97. Both ICLP and LOPSTR were organised by the K.U. Leuven Department of Computer Science. LOPSTR '97 was sponsored by Compulog Net and by the Flanders Research Network on Declarative Methods in Computer Science. LOPSTR '97 had 39 participants from 13 countries. There were two invited talks by Wolfgang Bibel (Darmstadt) on 'A multi level approach to program synthesis', and by Henning Christiansen (Roskilde) on 'Implicit program synthesis by a reversible metainterpreter'. Extended versions of both talks appear in this volume. There were 19 technical papers accepted for presentation at LOPSTR '97, out of 33 submissions. Of these, 15 appear in extended versions in this volume. Their topics range over the fields of program synthesis, program transformation, program analysis, tabling, metaprogramming, and

inductive logic programming.

Alan Robinson This set of essays pays tribute to Bob Kowalski on his 60th birthday, an anniversary which gives his friends and colleagues an excuse to celebrate his career as an original thinker, a charismatic communicator, and a forceful intellectual leader. The logic programming community hereby and herein conveys its respect and thanks to him for his pivotal role in creating and fostering the conceptual paradigm which is its raison d'Être. The diversity of interests covered here reflects the variety of Bob's concerns. Read on. It is an intellectual feast. Before you begin, permit me to send him a brief personal, but public, message: Bob, how right you were, and how wrong I was. I should explain. When Bob arrived in Edinburgh in 1967 resolution was as yet fairly new, having taken several years to become at all widely known. Research groups to investigate various aspects of resolution sprang up at several institutions, the one organized by Bernard Meltzer at Edinburgh University being among the first. For the half-dozen years that Bob was a leading member of Bernard's group, I was a frequent visitor to it, and I saw a lot of him. We had many discussions about logic, computation, and language.

7th International Workshop, LOPSTR '97, Leuven, Belgium, July 10-12, 1997 Proceedings

Static Analysis

Proceedings of the 1998 Joint International Conference and Symposium on Logic Programming

Logic Based Program Synthesis and Transformation

5th International Symposium, RuleML 2011 - Europe, Barcelona, Spain, July 19-21, 2011, Proceedings

Meta-level Inference Systems

Distributed Constraint Logic Programming

P-Prolog is put forward as an alternative proposal to the difficulties faced in the main research areas of parallel logic programmings, which have been studied. P-Prolog provides the advantages of guarded Horn clauses while retaining don't know non-determinism where required. This monograph presents also an or-tree model and an implementation scheme for it, to combine and- and or- parallelism with reasonable efficiency. The model and implementation scheme discussed can be applied to P-Prolog and other parallel logic languages.

This book constitutes the thoroughly refereed post-proceedings of the 12th

International Workshop on Logic Based Program Synthesis and Transformation, LOPSTR 2002, held in Madrid, Spain in September 2002. The 15 revised full papers presented together with 7 abstracts were carefully selected during two rounds of reviewing and revision from 40 submissions. The papers are organized in topical sections on debugging and types, tabling and constraints, abstract interpretation, program refinement, verification, partial evaluation, and rewriting and object-oriented development.

This book constitutes the refereed proceedings of the 11th European Conference on Logics in Artificial Intelligence, JELIA 2008, held in Dresden, Germany, Liverpool, in September/October 2008. The 32 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 98 submissions. The papers cover a broad range of topics including belief revision, description logics, non-monotonic reasoning, multi-agent systems, probabilistic logic, and temporal logic.

This book constitutes the refereed proceedings of the 5th International Symposium on Static Analysis, SAS'98, held in Pisa, Italy, in September 1998. The 20 revised full papers presented were carefully reviewed and selected from a total of 48 submissions. Also included is an invited tutorial. The papers are organized in topical sections on data-flow analysis, logic

programming, concurrency, abstract domains, partial evaluation, type inference, and optimization. The invited tutorial by David Schmidt and Bernhard Steffen is entitled "data-flow analysis as model checking of abstract interpretations".

New Frontiers

Extensions of Logic Programming

4th International Conference, ALP '94, Madrid, Spain, September 14-16, 1994. Proceedings

6th International Symposium, FLOPS 2002, Aizu, Japan, September 15-17, 2002. Proceedings

18th International Workshop, WFLP 2009, Brasilia, Brazil, June 28, 2009, Revised Selected Papers

Logic Programming and Nonmonotonic Reasoning

23rd International Conference, ICLP 2007, Porto, Portugal, September 8-13, 2007, Proceedings

Covers the theory, applications, theoretical possibilities and implementation issues that represent the material in Prolog.

Includes tutorials, lectures, and refereed papers on all aspects of logic programming, The Joint International Conference and Symposium on Logic Programming, sponsored by the Association for Logic Programming, includes

tutorials, lectures, and refereed papers on all aspects of logic programming, including theoretical foundations, constraints, concurrency and parallelism, deductive databases, language design and implementation, nonmonotonic reasoning, and logic programming and the Internet.

Lists citations with abstracts for aerospace related reports obtained from world wide sources and announces documents that have recently been entered into the NASA Scientific and Technical Information Database.

The International Logic Programming Symposium is one of two major international conferences sponsored by the Association of Logic Programming. Both conferences are held annually. The theme for the 1995 conference was "Declarative Systems", particularly the integration of the logic programming, functional programming, and object-oriented programming paradigms.

12th International Conference, LPNMR 2013, Corunna, Spain, September 15-19, 2013. Proceedings

11th European Conference, JELIA 2008, Dresden, Germany, September 28-October 1, 2008. Proceedings

Logic Program Synthesis and Transformation

Essays in Honour of Robert A. Kowalski, Part II

5th International Symposium, SAS'98, Pisa, Italy, September 14-16, 1998, Proceedings

Proceedings of the 1995 International Symposium

17th International Conference, ILP 2007, Corvallis, OR, USA, June 19-21, 2007, Revised Selected Papers

This book constitutes the refereed proceedings of the 7th International Symposium on Functional and Logic Programming, FLOPS 2004, held in Nara, Japan, in April 2004. The 18 revised full papers presented together with 3 invited contributions were carefully reviewed and selected from 55 submissions. The papers are organized in topical sections on logic and functional-logic programming, applications, program analysis, rewriting, types and modules, logic and semantics, and functional programming. This volume contains extended versions of papers presented at the Third International Workshop on Logic Program Synthesis and Transformation (LOPSTR 93) held in Louvain-la-Neuve in July 1993. Much of the success of the workshop is due to Yves Deville who served as Organizer and Chair. Many people believe that machine support for the development and evolution of software will play a critical role in future software engineering environments. Machine support requires the formalization of the artifacts and processes that arise during the software lifecycle. Logic languages are unique in providing a uniform declarative notation for precisely describing application domains, software requirements, and for prescribing behavior

via logic programs. Program synthesis and transformation techniques formalize the process of developing correct and efficient programs from requirement specifications. The natural intersection of these two fields of research has been the focus of the LOPSTR workshops. The papers in this volume address many aspects of software development including: deductive synthesis, inductive synthesis, transformations for optimizing programs and exploiting parallelism, program analysis techniques (particularly via abstract interpretation), meta programming languages and tool support, and various extensions to Prolog-like languages, admitting non-Horn clauses, functions, and constraints. Despite the progress represented in this volume, the transition from laboratory to practice is fraught with difficulties.

This book contains the post-conference proceedings of the 17th International Conference on Inductive Logic Programming. It covers current topics in inductive logic programming, from theoretical and methodological issues to advanced applications.

This book constitutes the refereed proceedings of the 5th International Symposium on Functional and Logic Programming, FLOPS 2001, held in Tokyo, Japan in March 2001. The 21 revised full papers presented together with three invited papers were carefully reviewed and selected from 40

submissions. The book offers topical sections on functional programming, logic programming, functional logic programming, types, program analysis and transformation, and Lambda calculus.

7th International Symposium, FLOPS 2004, Nara, Japan, April 7-9, 2004, Proceedings

***Programming Language Implementation and Logic Programming
13th International Work-Conference on Artificial Neural Networks, IWANN
2015, Palma de Mallorca, Spain, June 10-12, 2015. Proceedings, Part I
Inductive Logic Programming***

Scientific and Technical Aerospace Reports

***5th International Conference, AMAST '96 Munich, Germany, July 1996.
Proceedings***

Persistent object systems are systems which support the creation and manipulation of objects in a uniform manner, regardless of how long they persist. This is in direct contrast with conventional systems where temporary objects are created and manipulated using one mechanism (typically programming language data structures) and permanent objects are maintained using a different mechanism (usually a filestore). The unification of temporary and permanent objects yields systems which are smaller and more efficient than conventional systems and which provide a powerful and flexible platform for the development of large, data intensive applications. This volume presents the proceedings of a workshop at which latest research in this area was discussed. The papers are grouped into sections on the following

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topics: type systems and persistence, persistent programming languages, implementing persistence, object stores, measurement of persistent systems, transactions and persistence, and persistent machines.

This book constitutes the refereed proceedings of the 17th International Conference on Logic Programming, ICLP 2001, held in Paphos, Cyprus in November/December 2001. The 23 revised full papers presented were carefully reviewed and selected from 64 submissions. All current aspects of logic programming and computational logics are addressed.

This book constitutes the refereed proceedings of the 13th Symposium on Theoretical Aspects of Computer Science, STACS 96, held in Grenoble, France in February 1996. The 52 revised papers presented were selected from a total of 185 submissions; also included are three invited papers. The volume addresses all current aspects of theoretical computer science and is organized in sections on complexity theory, automata theory, parallel algorithms, learning, parallel and distributed systems, cryptography, logic and database theory, algorithms, semantics and program verification, and communication complexity.