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Induction of Default Theories -- Explicitly Using Default Knowledge in Concept Learning: An Extended Description Logics Plus Strict and Default Rules -- Declarative Specification and Solution of Combinatorial Auctions Using Logic Programming -- Bounded LTL Model Checking with Stable Models -- Diagnosing Physical Systems in A-Prolog -- Planning with Different Forms of Domain-Dependent Control Knowledge — An Answer Set Programming Approach -- Encoding Solutions of the Frame Problem in Dynamic Logic -- ?-RES: Reasoning about Actions, Events and Observations -- Omega-Restricted Logic Programs -- Improving ASP Instantiators by Join-Ordering Methods -- Optimizing the Computation of Heuristics for Answer Set Programming Systems -- New Generation Systems for Non-monotonic Reasoning -- Algorithms for Computing X-Minimal Models -- Fixpoint Characterizations for Many-Valued Disjunctive Logic Programs with Probabilistic Semantics -- Multi-adjoint Logic Programming with Continuous Semantics -- Multi-dimensional Dynamic Knowledge Representation -- Antitonic Logic Programs -- System Description -- A-system: Declarative Programming with Abduction -- An Update Front-End for Extended Logic Programs -- asppls — An Implementation of Answer-Set Programming with Propositional Schemata -- NoMoRe: A System for Non-Monotonic Reasoning under Answer Set Semantics -- plp: A Generic Compiler for Ordered Logic Programs -- Prototypes for Reasoning with Infinite Stable Models and Function Symbols -- psmodels: Stable Models Based on Pertinence -- System Description: DLV -- System Description: The DLVK Planning System -- The Smodels System -- The USA-Advisor: A Case Study in Answer Set Planning.

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## Sommario/riassunto

These are the proceedings of the Sixth International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR2001). The conference was held in Vienna from 17th to 19th of September, 2001. It was collocated with the Joint German/Austrian Conference on Artificial Intelligence (24th German/9th Austrian Conference on Artificial Intelligence), KI2001. LPNMR conferences aim to promote research in logic-based programming languages, database systems, nonmonotonic reasoning, and knowledge representation. LPNMR2001 was the sixth conference in the series. The previous meetings were held in Washington, DC, in 1991, in Lisbon, Portugal, in 1993, in Lexington, Kentucky, in 1995, in Dagstuhl, Germany, in 1997, and in El Paso, Texas, in 1999. The technical program of LPNMR2001 was comprised of 23 invited talks that were given by Jürgen Dix, Georg Gottlob, Phokion Kolaitis, Maurizio Lenzerini, and Chiaki Sakama. It also contained 23 technical presentations selected by the program committee during a rigorous review process. Finally, as a part of the technical program, the conference featured a special session comprised of nine presentations and demonstrations of implemented nonmonotonic reasoning systems. All these contributions are included in the proceedings. Many individuals worked for the success of the conference. Special thanks are due to all members of the program committee and to additional reviewers for their effort to produce fair and thorough evaluations of submitted papers. Furthermore, we would like to thank the members of the Knowledge Based Systems Group of the Vienna University of Technology, which took care of the local organization. We particularly appreciated the never tiring effort of Elfriede Nedoma, secretary to the group. We would also like to thank Gerd Brewka for his support in arranging the collocation of the conference with KI2001. Last, but not least, we thank the sponsoring institutions for their generosity.

September 2001 Thomas Eiter Wolfgang Faber Mirosław Truszczyński  
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