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Preface

This volume consists of the refereed papers presented at the *Fourth International Conference on Logic Programming and Non-Monotonic Reasoning* (LP & NMR '97) held at Dagstuhl, Germany, in July 1997. To emphasize the importance of running systems, we have also included for the first time selected papers describing implementations of systems/prototypes based on logic programming and non-monotonic reasoning. These systems were also demonstrated during the conference and were selected by the members of the *Panel on Implementations* (listed on page VII).

LP & NMR '97 is the fourth meeting in a series. The three previous meetings were held in Washington, U.S.A., in July 1991, in Lisbon, Portugal, in June 1993, and in Lexington, U.S.A., in June 1995. The LP & NMR conferences have been designed to promote inter-disciplinary research on logic programming and logical foundations of artificial intelligence. By bringing together researchers in both disciplines they facilitate cooperation and cross-fertilization of ideas. The cross-disciplinary character of the conferences is highlighted by the individuals invited to deliver plenary addresses: *Bruno Buchberger, Michael Gelfond, Joxan Jaffar, Robert M. Karig, and Mirek Truszczyński.* These invited speakers offered a tour, starting from the concepts (constraint logic programming, knowledge representation, and automated reasoning), to the projects (the Theorema project on computing, solving, and proving), and industrial needs.

Special thanks are due to the program committee, the invited speakers, the panelists, and to additional reviewers (listed on the next page) for complete unbiased evaluation of the submitted papers. We thank *Howard Blair* in particular for coordinating the review process.

Many people have contributed to the success of the LP & NMR '97 conference. *Diana Drake* of the Mathematical Sciences Institute at Cornell University (U.S.A.) helped in the timely execution of the review process. The staff of Dagstuhl Castle (Germany) were cordial hosts for the conference and took excellent care of the participants. The Artificial Intelligence group at the University of Koblenz (Germany) including the local organizing committee *Peter Baumgartner, Frieder Stolzenburg, and Chandrabose Aravindan*, handled the overall organization. In particular, *Chandrabose Aravindan* was responsible for many organizational details (maintaining the web page, publicity, collecting papers, preparing the final print) and did a great job.

This conference was sponsored by several organizations listed on page VII. Their generous funding has greatly contributed towards the successful organization of this conference and we thank them all for that.

July 1997

Jürgen Dix, Koblenz
Ulrich Furbach, Koblenz
Anil Nerode, Ithaca, NY

Organization

Previous Conferences

LP&NMR '91:	(Eds.) Marek, Nerode, Subrahmanian	Washington, D.C., U.S.A
LP&NMR '93:	(Eds.) Pereira, Nerode	Lisbon, Portugal
LP&NMR '95:	(Eds.) Marek, Nerode, Truszczyński	Lexington, KY, U.S.A.

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Panel on Implementations

Jürgen Dix	University of Koblenz, Germany
Ronen Feldman	University at Ramat Gan, Israel
Ilkka Niemelä	Helsinki University of Technology, Finland
Torsten Schaub	University of Potsdam, Germany
Mirek Truszczyński	University of Kentucky at Lexington, U.S.A.
David Scott Warren	State University of New York at Stony Brook, U.S.A.

Sponsors

Association of Logic Programming (ALP), Compulog Network of Excellence, Deutsche Forschungsgemeinschaft (DFG), Gesellschaft für Informatik (GI), the Mathematical Sciences Institute at Cornell University (U.S. Army Research Office Center of Excellence), the University of Koblenz, and the U.S. DOD Multiple University Research Initiative (MU) on the Foundations of Intelligent Systems (Cornell, Stanford, and UC Berkeley).

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