BOOK REPORTS 137

Logic Programming: Proceedings of '96 Joint International Conference and Symposium on Logic Programming. Edited by Michael Maher. MIT Press, Cambridge, MA. (1996). 554 pages. \$85.00.

Program Committee. The Association for Logic Programming. Series foreword. Preface. Referees. Invited talks. Constraint programming (Jean-François Puget). Contributed papers. Inferring left-terminating classes of queries for constraint logic programs (Fred Mesnard). CLP (\Re_{lin}) revised (Philippe Refalo and Pascal Van Hentenryck). Effectiveness of optimizing compilation for CLP (%) (Andrew D. Kelly, Andrew Macdonald, Kim Marriott, Peter J. Stuckey and Ronald H.C. Yap). A framework for modal logic programming (Matteo Baldoni, Laura Giordano and Alberto Martelli). A linear logic calculus of objects (Michele Bugliesi, Giorgio Delzanno, Luigi Liquori and Maurizio Martelli). Representing priorities in logic programs (Chiaki Sakama and Katsumi Inoue). A novel implementation method of delay (Neng-Fa Zhou). A thread in time saves tabling time (Prasad Rao, C.R. Ramakrishnan and I.V. Ramakrishnan). Interprocedural register allocation for the WAM based on source to source transformations (Ulrich Neumerkel). Concurrency and communication in transaction logic (Anthony J. Bonner and Michael Kifer). An extension of SLD by abduction and integrity maintenance for view updating in deductive databases (Hendrik Decker). A realistic experiment in knowledge representation in open event calculus: Protocol specification (Marc Denecker, Kristof Van Belleghem, Guy Duchatelet, Frank Piessens and Danny De Schreye). A declarative view of modes (Lee Naish). Type synthesis for logic programs (Jichang Tan and I-Peng Lin). Diagnosing non-well-moded concurrent logic programs (Kenta Cho and Kazunori Ueda). Declarative logic programming with primitive recursive relations on lists (Andreas Hamfelt and Jørgen Fischer Nilsson). Engineering transformations of attributed grammars in \(\lambda\)Prolog (Olivier Ridoux). Unification via explicit substitutions: The case of higher-order patterns (Gilles Dowek, Thérèse Hardin, Claude Kirchner and Frank Pfenning). An abstract machine for computing the well-founded semantics (Konstantinos Sagonas, Terrance Swift and David S. Warren). Efficient implementation of the well-founded and stable model semantics (Ilkka Niemelä and Patrik Simons). Adding flexibility to query evaluation for modularly stratified databases (Ulrich Zukowski and Burkhard Freitag). A conceptual embedding of folding into partial deduction: Towards a maximal integration (Michael Leuschel, Danny De Schreye and André de Waal). Demand transformation analysis for concurrent constraint programs (Moreno Falaschi, Patrick Hicks and William Winsborough). Complementation of abstract domains made easy (Gilberto Filé and Francesco Ranzato). Cumulative scheduling with task intervals (Yves Caseau and François Laburthe). Boosting the interval narrowing algorithm (Olivier Lhomme, Arnaud Gotlieb, Michel Rueher and Patrick Taillibert). Completeness results for basic narrowing in non-copying implementations (M.R.K. Krishna Rao). Extremal problems in logic programming and stable model computation (Pawel Cholewinski and Miroslaw Truszczynski). Logic programs with contested information (Shekhar Pradhan). Asserting lemmas in the stable model semantics (Stefania Costantini, Gaetano Aurelio Lanzarone and Giuseppe Magliocco). A compositional semantics for logic programs and deductive databases (François Bry). A compositional semantics for normal open programs (Sandro Etalle and Frank Teusink). A nonmonotonic disputational-based semantics and proof procedure for logic programs (Michael Thielscher). Visualizing parallel logic program execution for performance tuning (Anthony J. Kusalik and Steven D. Prestwich). Initial results of the parallel implentation of DASWAM (Kish Shen). Poster abstracts. Application of efficient lazy set expression (Stefan Lüttringhaus-Kappel and Dirk Schulz). Logic programming tools applied to fire detection in hard-coal mines (Wolfram Burgard, Armin B. Cremers, Dieter Fox, Angelica M. Kappel and Stefan Lüttringhaus-Kappel). Recognition of 3D objects in aerial images based on generic models (Thomas H. Kolbe). Tracing Prolog without a tracer (Mireille Ducassé and Jacques Noyé). PROCALOG—Programming with constraints and abducibles in logic (Gerhard Wetzel, Robert Kowalski and Francesca Toni). Attempto Controlled English (ACE): A seemingly informal bridgehead in formal territory (Rolf Schwitter and Norbert E. Fuchs). Optimizing constraint-intensive problems using early projection (Andreas Fordan, Ulrich Geske and Alexander Nareyek). Logic programming and databases integrated at last? (Juliana Freire, Terrance Swift and David S. Warren). How to extend partial deduction to derive the KMP string-matching algorithm from a naive specification (Alberto Pettorossi, Maurizio Proietti and Sophie Renault). A hypertext based environment to write literate logic programs (Pierre Deransart, Patrick Parot, Roberto da Silva Bigonha, Mariza Andrade da Silva Bigonha and José de Siqueria). Probabilistic disjunctive deductive databases (Liem Ngo). Dependent and-parallelism revisited (E. Pontelli and G. Gupta). A general framework for integrating HCLP and PCSP (Michael Jampel, Jean-Marie Jacquet and David Gilbert). Specification of complex systems with definite clause grammar (H. Lewis Chau). Resource management method for a compiler system of linear logic programming language (Naoyuki Tamura and Yukio Kaneda). On merging theorem proving and logic programming paradigms (Artificial Intelligence Research Group). Generating rational models (Sven-Erik Bornscheuer). Colour tagging for Prolog visualization (Michael Dobrohoczki, Anthony Kusalik and Eric Neufeld). GUPU: A Prolog course environment and its programming methodology (Ulrich Neumerkel). Author index.

The Maple® O.D.E. Lab Book. By Darren Redfern and Edgar Chandler. Springer-Verlag, New York. (1996). 160 pages. DM 44.00, öS 321.20, sFr 39.50 (diskette included). Contents:

1. Introduction. 2. Getting started with Maple. 3. First-order ODEs. 4. Applications of first-order ODEs. 5. Graphical methods. 6. Homogeneous linear differential equations. 7. Non-homogeneous linear differential equations. 8. Applications of linear differential equations. 9. More applications and systems of differential equations. 10. Phase planes. 11. Matrix operations. 12. Matrix methods of solution. 13. Isoclines. 14. Series solutions. 15. Numerical methods. 16. The Laplace transform. Bibliography. Index.