

Curriculum Vitae Maurice Bruynooghe

General

Citizenship: Belgium

Date of birth: July 6, 1950

Work address:

Departement Computerwetenschappen

Katholieke Universiteit Leuven

Celestijnenlaan, 200 A

3001 Heverlee

Belgium

email: Maurice.Bruynooghe@cs.kuleuven.ac.be

fax: ++32 16 327996

tel: ++32 16 327539

URL research group: <http://www.cs.kuleuven.ac.be/cwis/research/dtai/>

personal URL: <http://www.cs.kuleuven.ac.be/~maurice>

Current Research Interests

Logic Programming, Knowledge Representation, Machine Learning, Program Analysis.

Education

- "Special Doctor" faculty applied sciences, KULeuven, Jan. 1988.
- Ph.D. computer science, faculty applied sciences, KULeuven, May 1979.
- Engineer in computer science, faculty applied sciences, KULeuven, July 1974.

Professional Experience

- 2000-present: professor ("hoogleraar"), Dept. Comp. Sc., KULeuven.
- 1993-2000: part-time professor, Dept. Comp. Sc., KULeuven.
- 1992-2000: Research Director NFWO, Dept. Comp. Sc., KULeuven.
- 1988-1992: Senior Research Associate NFWO, Dept. Comp. Sc., KULeuven.
- 1983-1988: Research Associate NFWO, Dept. Comp. Sc., KULeuven.
- 1974-1983: Researcher, Dept. Comp. Sc., KULeuven.

Awards

- ECCAI fellow (European European Coordinating Committee for Artificial Intelligence) since 2004
- P-A-M-Award (Physics-Astronomy-Mathematics Division of the Special Libraries Association), 2000 for work that benefits the libraries (involvement in the creation of the Theory and Practice of Logic Programming, a low cost alternative for the Journal of Logic Programming).
- Francqui Chair FUNDP Namur, 1994 (with D. De Schreye).
- SWIFT-Award 1988 (with D. De Schreye) for: "De analyse en de synthese van logische programma's uitgaande van abstracte bewijsbomen".
- IBM-Award for Informatics 1980 for Ph.D. thesis: "Naar een betere beheersing van de uitvoering van programma's in de logika der Horn-uitdrukkingen".
- IBM-Award for Informatics 1975 for Master thesis: "Het automatisch bewijzen van stellingen".

Professional Activities

Program Committee Member

- ICLP 2011, 27th International Conference on Logic Programming, Lexington, Kentucky, USA, July 6-10, 2011.
- BNAIC'10, The 22nd Benelux Conference on Artificial Intelligence, Luxembourg, October 25-26 2010.
- ICAI2010, The second International Conference on Advanced Intelligence, Beijing, August 20-23 2010.
- BNAIC 2009 The 21st Benelux Conference on Artificial Intelligence, Eindhoven, the Netherlands, 29-30 October 2009.
- BNAIC 2008, The 20th Belgian-Netherlands Conference on Artificial Intelligence, University of Twente, Enschede, the Netherlands, October 30-31, 2008.
- ICAI-08 The 1st International Conference on Advanced Intelligence, Beijing, China, October 19-22, 2008.
- SAS 2008 15th International Static Analysis Symposium, SAS 2008, Valencia (Spain), July 16-18, 2008.
- BNAIC 2007 19th Belgian-Dutch Conference on Artificial Intelligence, Utrecht, October 6-7th, 2007.
- ICLP 2007 23rd International Conference on Logic Programming, Porto, Portugal, September 8-13, 2007.
- BNAIC 2006 18th Belgian-Dutch Conference on Artificial Intelligence, Namur, October 5-6th, 2006.
- BNAIC 2005 Belgium-Netherlands Conference on Artificial Intelligence, Brussel October 17-18, 2005.
- Int. Conf. on Logic Programming, Sitges, Spain, October 2-5, 2005.
- PADL 2004 Practical Applications of Declarative Languages, Dallas, TX, June 18-19, 2004.
- LOPSTR 2004 International Symposium on Logic-based Program Synthesis and Transformation, Verona, August 24-28, 2004.
- BNAIC 2003 Belgian Dutch Conference on Artificial Intelligence, Nijmegen, October 23-23, 2003.
- LOPSTR 2003 International Symposium on Logic-based Program Synthesis and Transformation, Uppsala, Sweden, August 25 - 27, 2003.
- LPAR 2003 Int. Conf. on Logic for Programming, Artificial Intelligence and Reasoning, September 22-26, 2003, Almaty, Kazakhstan.
- LPAR02 Logic for Programming, Artificial Intelligence and Reasoning September 16-20 2002, Tbilisi, Georgia
- BNAIC'02 (Belgian Dutch AI Conference , Leuven, October 2002.
- LPAR'01 (Logic for Programming, Artificial Intelligence and Reasoning), La Habana, Cuba, December.
- LOPSTR'01 (11th International Workshop on Logic-based Program Synthesis and Transformation) Paphos, Cyprus, November.
- SAS'01 (Static Analysis Symposium), July 2001, Paris.
- LPAR'2000 (Logic for Programming and Automated Reasoning), November. 2000, R'eunion.
- WLP'2000 (Ges. Inform. Workshop on Logic Programming), 25-27 August, Berlin.
- CL'2000 (Computational Logic), July 00, London.
- LOPSTR'2000 (Logic Programming Synthesis and Transformation), July 00, London.
- LPAR'99 (Logic for Programming and Automated Reasoning), Sept. 99, Tbilisi.
- SAS'98 (Int. Static Analysis Symposium), Sept. 98 Pisa.
- JICSLP'98 (Joint Int. Conf and Symp. on Logic Programming), June 98, Manchester.
- DDLP'97 (Fifth Int. Workshop on Deductive Databases and Logic Programming), July 97, Leuven.
- ILPS'97 (International Logic programming Symposium), Oct. 97, Port Jefferson, New York,
- SAS'97 (Fourth International Static Analysis Symposium), Sept. 97, Paris.
- DPLE'97 (Declarative Programming Languages in Education, Sept. 97, Southampton).
- KR'96 (Fifth International Conference on Principles of Knowledge Representation and Reasoning), Nov. 96, Boston.
- IJCAI'95 (Int. Joint Conf on Artificial Intelligence), Montreal, August 1995.
- ILPS'94 (Int. Logic Programming Symposium), Ithaca, November 1994.
- ICLP'94 (Internat. Conf. on Logic Programming), Santa Margherita Ligure, Italy, June 94.
- KR'94 (Fourth International Conference on Principles of Knowledge Representation and Reasoning), Bonn, May 94.

- PLILP'93 (5th International Symposium on Programming Language Implementation and Logic Programming), Tallinn, Aug. 93.
- PLILP'92 (4th International Symposium on Programming Language Implementation and Logic Programming), Leuven, Aug. 92.
- META'92 (3th Int. Workshop on Metaprogramming in Logic), Uppsala, June 92.
- COMPEURO'92 (Int. Conf. on Computer Systems and Software Engineering), Den Haag , May 92.
- IWMM'92 (Int. Workshop on Memory Management), St. Malo, Sept. 92.
- JICSLP'92 (Joint Int. Conf. and Symp. on Logic Programming), Washington D.C., Nov. 92.
- NAIC'91 (Nederlandse AI Conferentie), Amsterdam, Nov. 91.
- PLILP'91 (3th International Symposium on Programming Language Implementation and Logic Programming), Passau, Aug. 91.
- PDK'91 (Workshop Processing Declarative Knowledge), Kaiserslautern, July 91.
- PLILP'90 (2nd International Symposium on Programming Language Implementation and Logic Programming), Linköping, Aug. 90.
- ICLP'90 (7th Int. Conf. on Logic Programming), Jeruzalem, June, 90.
- META'90 (2nd Workshop on Meta Programming in Logic), Leuven, April, 90.
- NACL'89 (North American Conf. on Logic Programming), Cleveland, Oct. 89.
- ICLP'89 (6th Int. Conf. on Logic Programming), Lisboa, June 89.
- ESOP'88 (European Symposium on Programming), Nancy, March 88.
- AIMSA'86 (Artificial Intelligence: Methods, Systems and Applications), Varna, Sept. 86.
- ICLP'84 (Second Int. Conf. on Logic Programming), Uppsala, July 84.
- ICLP'82 (First Int. Conf. on Logic Programming), Marseille, sept. 82.

Program Committee Chair

- LOPSTR 2003 International Symposium on Logic-based Program Synthesis and Transformation, Uppsala, Sweden August 25 - 27, 2003.
- ILPS'94 International Logic Programming Symposium, Ithaca, N.Y., Nov. 94
- PLILP'93 5th International Symposium on Programming Language Implementation and Logic Programming), Tallinn, Aug. 93 (with J. Penjam).
- PLILP'92 (4th International Symposium on Programming Language Implementation and Logic Programming), Leuven, Aug. 92 (with M. Wirsing).
- META'90 (2nd Workshop on Meta Programming in Logic), Leuven, April 90.

Editor

- 1983-1990: Editorial Advisor of Journal of Logic Programming.
- 1991-2000: Editor-in-Chief of Journal of Logic Programming.
- 1991-present: Member Editorial Board of New Generation Computing.
- 2001-2005: Editor-in-Chief of Theory and Practice of Logic Programming.
- 2006-present: Editorial Advisor of Theory and Practice of Logic Programming.
- Guest editor Special Issue "Ten years of Logic Programming", Journal of Logic Programming, Vol. 19 and 20, 1994 (714p), and Vol. 23(2), 1995 (61p) (with S. Debray, M. Hermenegildo and M. Maher).
- Guest editor Special Issue "Program Development", Theory and Practice of Logic Programming, Vol 2(4-5) July-September 2002 (with K-K. Lau).

Tutorials

- A course " Abstract Interpretation for Logic Programming ", European Summer School on Language Logic and Information, ESSL'94, Copenhagen, Aug. 1994.
- Francqui Chair at FUNDP Namur, spring 1994, a course on Logic Programming (with D. De Schreye).
- A course " Abstract Interpretation for (Constraint) Logic Programming " NATO ASI Summer School Constraint Programming , Parnu, Estonia, Aug. 93
- Tutorial " Abstract Interpretation " (with D. De Schreye) at 5th Int. Conf. and Symp. on Logic Programming, Seattle, Aug. 88.

- A course ” Theorem Proving ” (with D. De Schreye and B. Demoen) at 2nd Eur. Summer School in Language, Logic and Information, Leuven, Aug. 90.

Invited lectures at international meetings

- 50 jaar AI, Verwezenlijkingen in Vlaanderen, Brussel, 23 november 2006, “Logica: Van programmeren tot kennis representeren”.
- AGP2000 - 2000 Joint Conference on Declarative Programming, La Habana, Cuba, Dec. 2000, “Logic programming revisited: logic programs as inductive definitions”.
- Reunion Workshop on Implementation of Logics, Reunion Island, Nov. 2000, “More declarative finite domain CLP-programming with open functions”.
- SLA2000 - 91th Annual Special Libraries Association Conference, Philadelphia, USA, June 2000, “From Journal of Logic Programming to Theory and Practice of Logic Programming”.
- Journée Francophone de Programmation Logique, Lille, May 92, ”Abstract Interpretation of Constraint Logic Programs”.
- Workshop on Static Analysis of Equational, Functional and Logic Programs, Bordeaux, Oct. 91, ” On abstract interpretation of Logic Programs”.
- RCLP 91 Second Russian Conference on Logic Programming, St. Petersburg, Sept. 91, ”On abstract interpretation of Logic Programs”.
- ALPUK 91, Association of Logic Programming (UK) Annual Conf. on Log. Progr., Edinburgh, April 91, ” On abstract interpretation of Logic Programs”.
- AII 89, International Workshop on Analogical and Inductive Inference, Reinhardbrunn, Oct. 89, ”Some thoughts on the role of examples in program transformation and its relevance for explanation based learning”.
- AIMS 86, Second International Conference on Artificial Intelligence: Methods, Systems and Applications, Varna, Sept. 86, ”Some thoughts on the Relationship between ALGOL-like and Applicative Languages”.
- Logic Programming Workshop 83, Albufeira, June 83, ”Some reflections on Implementation Issues of Prolog”.

Member of Ph.D. committee of:

- Wannes Meert, K.U.Leuven, March 2011
- Anton Dries, K.U.Leuven, December 2010
- Angelika Kimmig, K.U.Leuven, November 2010
- Leander Schietgat, *Graph-based data mining for biological applications*, K.U.Leuven, May 2010 (advisor)
- Peter Van Weert, K.U.Leuven, May 2010
- Johan Wittoecx, K.U.Leuven, May 2010
- Joaquin Vanschoren, K.U.Leuven, May 2010
- Ping Hou, K.U.Leuven, K.U.Leuven, March 2010
- Geert Meyfroidt, *Computerized data management in the intensive care unit: predictive modeling, time series analysis and opportunities for support of care*. K.U.Leuven, March 2010 (advisor)
- Quan Phan, K.U.Leuven, November 2009
- Étienne Payet, Université de la Réunion, October 2009
- Robby Goetschalckx, *The use of domain knowledge in reinforcement learning* . K.U.Leuven, September 2009 (advisor)
- Steven Van Vooren, K.U.Leuven, September 2009
- Fabian Guíza, *Predictive data mining in intensive care*. K.U.Leuven, September 2009 (advisor)
- Tom Croonenborghs, *Model-assisted approaches for relational reinforcement learning*. K.U.Leuven, September 2009 (advisor)
- Manh Thang Nguyen, K.U.Leuven, July 2009
- Maarten Mariën, K.U.Leuven, Februari 2009
- Álvaro Cortés Calabuig, *Towards a logical reconstruction of a theory of locally complete databases*. K.U.Leuven, December 2008 (advisor)

- Jon Sneyers, K.U.Leuven, November 2008
- Leslie De Koninck, K.U.Leuven, November 2008
- Daan Fierens, *Learning directed probabilistic logical models from relational data*. K.U.Leuven, July 2008 (advisor)
- K. C. Sashidhar, *Efficient automatic verification of loop and data-flow transformations by functional equivalence checking*. K.U.Leuven, May 2008 (advisor)
- Stefaan Raeymaekers, *Information extraction from web pages based on tree automata induction*. K.U.Leuven, Januari 2008 (advisor)
- Anneleen Van Assche, K.U.Leuven, Januari 2008
- Kim S. Henriksen, Roskilde, November 2007
- Joost Vennekens, K.U.Leuven, May 2007
- Celine Vens, K.U.Leuven, March 2007
- Ruben Vendeginste, K.U.Leuven, Februari 2007
- Remko Tronçon, K.U.Leuven, October 2006
- Karel Van Oudheusden, K.U.Leuven, March 2006
- Stefaan Himpe, K.U.Leuven, Januari 2006
- Tom Schrijvers, K.U.Leuven, June 2005
- Sven Verdoolaege, *Incremental loop transformations and enumeration of parametric sets*. K.U.Leuven, April 2005 (advisor)
- Jan Struyf, K.U.Leuven, December 2004
- Nico Jacobs, K.U.Leuven, *Relational sequence learning and user modelling*. October 2004 (advisor)
- Kristof Beyls, UG, June 2004
- Bert Van Nuffelen, K.U.Leuven, June 2004
- Kurt Driessens, *Relational reinforcement learning*. K.U.Leuven, May 2004 (advisor)
- Nancy Mazur, *Compile-time garbage collection for the declarative language Mercury*. K.U.Leuven, May 2004 (advisor)
- Nikolay Pelov, *Semantics of Logic Programs with Aggregates*. K.U.Leuven, April 2004 (advisor)
- M. Leemans, K.U.Leuven, Januari 2004
- V. Lagoon Melbourne University, November 2003
- A. Serebrenik, K.U.Leuven, July 2003
- R. Kosala, *Information extraction by tree automata inference*. K.U.Leuven, July 2003 (advisor)
- J. Ramon, *Clustering and instance based learning in first order logic*. K.U.Leuven, October 2002 (advisor)
- W. Van Laer, *From Propositional to First Order Logic in Machine Learning and Data Mining - Induction of first order rules with ICL*. K.U.Leuven, June 2002 (advisor)
- W. Vanhoof, *Techniques for on- and off-line specialisation of logic programs*. K.U.Leuven, June 2001 (advisor)
- S. Verbaeten, K.U.Leuven, June 2000
- F. Spoto, Pisa, Nov. 99
- H. Vandecasteele, *Constraint logic programming: applications and implementation*. K.U.Leuven, May 99 (advisor)
- L. Dehaspe, *Frequent pattern discovery in first-order logic*. K.U.Leuven, Dec. 98 (advisor)
- H. Blockeel, *Top-down induction of first order logical decision trees*. K.U.Leuven, Dec. 98 (advisor)
- E. De Greef, K.U.Leuven, Jan. 98
- K. Van Belleghem, K.U.Leuven Dec. 97
- S. Decorte, K.U.Leuven, Dec. 97
- D. Dussart, *Topics in program specialization and analysis for statically typed functional languages*. K.U.Leuven, May 97 (advisor)
- M. Leuschel, K.U.Leuven, May 97
- H. Adé, *Theory revision in inductive logic programming: inductive learning, abductive reasoning and bias*. K.U.Leuven, Dec. 95 (advisor)
- R. Molenaar, K.U.Leuven, Nov. 95.
- G. Sablon, *Iterative versionspaces with an application in inductive logic programming*. K.U.Leuven, May 95 (advisor)

- A. Kågedal, Linköping, May 95
- V. Dumortier, *Freeness and related analyses of constraint logic programs using abstract interpretation*. K.U.Leuven, Oct. 94 (advisor)
- M. Garcia de la Banda, UPM Madrid, July 94
- D. Verkest, K.U.Leuven, May 94
- C. Angelo, K.U.Leuven, Feb. 94
- B. Martens, K.U.Leuven, Feb. 94
- A. Mariën, K.U.Leuven, Sept. 93
- M. Denecker, K.U.Leuven, Sept. 93
- P. Weemeeuw, K.U.Leuven, May 93
- E. Bevers, K.U.Leuven, March 93
- A. De Niel, K.U.Leuven, Jan. 93
- K. Verschaetse, K.U.Leuven, June 92
- O. Mallet, Ecole Polytechnique, Paris, June 92
- A. Mulkers, *Deriving live data structures in logic programs by means of abstract interpretation*. K.U.Leuven, Dec. 91 (advisor)
- L. Missiaen, K.U.Leuven, Dec. 91
- L. De Raedt, *Interactive concept-learning*. K.U.Leuven, Feb. 91 (advisor)
- C. Rouveirol, Université Paris-Sud, Jan. 91
- K. Musumbu, FUNDP Namur, Sept. 90
- T. Conrad, Université Paris-Sud, March 90
- J.F. Pique, Université de Marseille-Luminy, Feb. 90
- G. Janssens, *Deriving run time properties of logic programs by means of abstract interpretation*. K.U.Leuven, March 90 (advisor)
- J.M. Jacquet, FUNDP Namur, Nov. 89
- M. Corsini, Université de Bordeaux I, Jan. 89
- C. Codognet, Université de Paris 7, Jan. 89
- P. Codognet, Université de Bordeaux I, Jan. 89
- P. Van Hentenryck, FUNDP Namur, Sept. 87

Other

- Organisation of symposium New Approaches toward Computing (NAAtC), November 9 2001 Brussel.
- Organisation of ESSE PhD meeting at SAS 2002, Madrid 17-20 september 2002.
- Member executive council Association for Logic Programming 1989-90.
- Coordinator area of Program Development in Network of Excellence on Computational Logic 1991-96.
- Member Research Council K.U.Leuven 1991-96.

Publications

Over 50 journal papers, including papers in: ACM Transactions on Computational Logic, ACM Transactions on Design Automation of Electronic Systems ACM Transactions on Programming Languages and Systems, Acta Informatica, Advanced Engineering Informatics Algorithmica, AI Communications, Annals of Mathematics and Artificial Intelligence, Artificial Intelligence, Data and Knowledge Engineering, Information Processing Letters, Journal of Artificial Intelligence Research, Journal of Automated Reasoning, Journal of Experimental and Theoretical Artificial Intelligence, Journal of Logic and Computation, Journal of Logic Programming, Journal of Functional and Logic Programming, Journal of Symbolic Computation, Journal of Universal Computer Science, Knowledge Acquisition, Machine Learning, New Generation Computing, The Knowledge Engineering Review, and Theory and Practice of Logic Programming.

Over 100 other publications.

Research Projects

- *Theory and Implementation of Knowledge based systems for FO(.)*. 01.01.2010—31.12.2013. Project funded by FWO-Vlaanderen.

- *Learning from Data Originating from Evolution*. 01.01.2009—31.12.2012. Project funded by FWO-Vlaanderen. Principal investigator.
- *WOG Machine Learning for data mining and its applications*. 01.01.2009-31.12.2013. Flemish network funded by FWO-Vlaanderen.
- *Learning in Large Relational Databases with an Application in Intensive Care Medicine*. 01.01.2008—31.12.2011. Project funded by FWO-Vlaanderen. Principal investigator for DTAI research group and project coordinator.
- *Probabilistic Logic Learning*. 01.01.2008—31.12.2012. GOA project funded by KULeuven. Principal investigator.
- *Platform Independent Analysis and Implementation of Constraint Handling Rules*. 01.01.2007—31.12.2010. Project funded by FWO-Vlaanderen.
- *WOG Declarative Methods in Computer Science*. 01.01.2006—31.12.2010. Flemish network funded by FWO-Vlaanderen. Coordinator.
- *Foundations of Inductive Databases for Data Mining*. Project funded by FWO-Vlaanderen.
- *Scenario-Based Optimisation and Verification of Data Dependent Control Flow*. 1.1.2006—31.12.2009. Project funded by FWO-Vlaanderen. Principal investigator for DTAI research group.
- *TREND³: Towards Reliable and Enhanced Network Design and Deployment for DSL*. 01.01.2005—30.06.2006. Project with Alcatel-Bell funded by IWT. Principal investigator for DTAI research group.
- *Probabilistic-Logical Learning*. 01.01.2005—31.12.2008. Project funded by FWO-Vlaanderen. Principal investigator.
- *WOG Architectures and Compilers for Embedded Systems (ACES)*. 01.01.2005—31.12.2009. Flemish network funded by FWO-Vlaanderen. Principal investigator for DTAI research group.
- *Investigation of the Contribution of Antiviral Drug Resistance and other Factors to the Failure of Antiviral Therapy in HIV Patients, Using Data Mining Technology*. 01.10.2004—30.09.2008. OT project funded by KULeuven.
- *Investigation of the Clinical Prognostic Value for Therapy Failure of HIV-1 Drug Resistance Results and its Interaction with other Factors, Using new Data Mining Technologies*. 01.01.2004—31.12.2007. Project funded by FWO-Vlaanderen.
- *Developing Significant Predictive Models in Critical Illness*. 01.10.2004—30.09.2007. IDO project funded by KULeuven. Principal investigator for DTAI research group.
- *DSL Deployment Expert* 01.09.2004—31.12.2004. Project funded by Alcatel-Bell. Principal investigator.
- *Inductive Knowledge Bases*. 01.01.2003—31.12.2007. GOA project funded by KULeuven. Principal investigator.
- *Program Analysis for better Memory Management and Higher Performance of HAL, a Constraint Logic Programming Language*. 01.01.2003—31.12.2006. Project funded by FWO-Vlaanderen.
- *Working Group on Answer Set Programming* 15.09.2002—15.03.2008. Network funded by EC (EC IST-FET-2001-37004).
- *WOG: Machine Learning for Data Mining and its Applications*. 01.01.2002—31.12.2006. Flemish network funded by FWO-Vlaanderen.
- *Coordinated Research of Architecture Driven Code Transformations for Multimedia Applications*. 01.01.2002—31.12.2005. Principal investigator for DTAI research group.
- *DMax: Integrated Drug/Target Discovery and Development through Integration of Data Mining Techniques. Application in Virology Research and Development*. 01.10.2001—30.09.2003. Funded by IWT. In collaboration with the company PharmaDM.
- *Theory of Nonmonotone Inductive Definitions and its Use for Building Knowledge-based systems*. 01.01.2002—31.12.2005. Project funded by FWO-Vlaanderen.
- *WOG Declarative Methods in Computer Science*. 01.01.2001—31.12.2005. Flemish network funded by FWO-Vlaanderen. Coordinator.
- *WOG Program Acceleration by Application-Driven and Architecture-Driven Code Transformations*. 01.01.2000—31.12.2004. Flemish network funded by FWO-Vlaanderen. Principal investigator for DTAI research group.
- *Integration of Program Analysis into the Mercury System*. 01.01.2001—31.12.2002. Project funded by FWO-Vlaanderen. Principal investigator.
- *Sol-EU-Net, Data Mining and Decision Support for Business Competitiveness: a European Virtual*

- Enterprise*. 01.01.2000—31.03.2003. Funded by EC.
- *Query Languages for Database Mining*. 01.01.1999—31.12.2002. Project funded by FWO-Vlaanderen. Principal investigator for DTAI research group and project coordinator.
 - *Applied Logic for Advanced Data Mining in Industry (ALADIN)*. 19.10.1998—18.10.2000. ESPRIT project funded by EC.
 - *LP+: A Second Generation Logic Programming Language*. 01.01.1998—31.12.2002. GOA project by KULeuven. Principal investigator.
 - *Ruggedised and High Performance Logic Programming for the Real World (ARGo)*. 01.11.1997—30.06.1999. Esprit project funded by EC. Principal investigator for DTAI research group.
 - *Knowledge Representation and Computation in Open Logic Programming*. 01.01.1996—31.12.1999. Project funded by FWO-Vlaanderen.
 - *WOG Declarative Methods in Computer Science*. 01.01.1996—31.12.2000. Flemish network funded by FWO-Vlaanderen. Coordinator.
 - *Contextual Interpretation of Natural Language Texts by Means of Abductive reasoning and Inductively Acquired Knowledge LINGUADUCT* 01.01.1997—31.12.2000. Project funded by FWO-Vlaanderen. Principal investigator for DTAI research group.
 - *Inductive Logic Programming ILP II*. 01.01.1996—30.06.1999. Esprit Long Term Project funded by EC. Principal investigator for DTAI research group and overall project coordinator.
 - *Study of Parallellism in Abstract Interpretation Algorithms for (Constraint) Logic Programming Languages*. 01.01.1995—31.12.1998. Project funded by FWO-Vlaanderen.
 - *Abstract Interpretation for Declarative Languages ABILE..* 01.01.1995—31.12.1997. A Human Capital and Mobility Network funded by EC. Principal investigator for DTAI research group.
 - *Efficient Symbolic Computing*. 01.12.1994—30.11.1996. A network with partners from Eastern Europe funded by INTAS. Principal investigator for DTAI research group.
 - *Logic Program Synthesis and Transformation LPST*. 01.12.1993—30.11.1996. A Human Capital and Mobility Network funded by EC. Principal investigator for DTAI research group and overall project coordinator.
 - *Non-Standard Applications of Abstract Interpretation*. 01.01.1993—31.12.1997. GOA project funded by KULeuven. Principal investigator.
 - *Inductive Logic Programming ILP I*. 01.09.1992—31.08.1995. ESPRIT Basic Research Action funded by EC. Principal investigator for DTAI research group and overall project coordinator.
 - *Compulog II*. 01.08.1992—31.07.1995. ESPRIT Basic Research Action funded by EC, coordinated by Prof. K. R. Apt, CWI Amsterdam. Principal investigator for DTAI research group and subgroup leader.
 - *Inductive learning of Rules from Examples and Knowledge in a First Order Logical framework*. 01.01.1992—31.12.1995. Funded by NFWO. Principal investigator.
 - *Network of Excellence in Computational Logic COMPULOG NET* 01.04.1991— 30.11.1992 and successors until 01.06.2000. Funded by EC. Newsletter editor, Member executive council. Leader of Program Development Area.
 - em Exploitation of Parallelism in Logic Programs. 15.12.1990—15.12.1995. IT/IF/4. Support from DPWB (Belgium).
 - *PRINCE: Prolog Integrated with Constraints and Environments ro Industrial and Financial Applications*. 01.01.1990—31.01.1995. Principal investigator for DTAI research group in ESPRIT project funded by EC.
 - *Logic as a Basis for Artificial Intelligence: Knowledge Representation in Machine Learning*. Extension of RFO/AI/03. 01.01.1990—31.12.1992. Funded by DPWB (Belgium).
 - *Compulog I*. 01.04.1989—31.03.1992. ESPRIT Basic Research Action funded by EC, coordinated by Prof. R. A. Kowalski, Imperial College. Principal investigator for DTAI research group and subgroup leader.
 - *Logic as a Basis for Artificial Intelligence: Control and Efficiency of Deductive Inferencing and Parallelism*. RFO/AI/02. 01.11.1987—31.12.1992. Funded by DPWB (Belgium).
 - *Logic as a Basis for Artificial Intelligence: Knowledge Representation*. RFO/AI/03. 01.11.1987—31.12.1989. Funded by DPWB (Belgium).
 - *Efficient Implementation of Logic Programming Languages*. 01.01.1986—31.12.1988. Project OT/86/48 funded by KULeuven. Principal investigator.

- *Project Artificial Intelligence and Expert Systems*. 01.09.1984-31.08.1990. A collaboration between 5 Belgian universities funded by IWONL (Belgium).
- *BIM-Prolog* 1983-1988. Project KBAR/SOFT/1 funded by DPWB (Belgium). In collaboration with company BIM.
- *Computer Aided Design of Information Systems 2*. 01.10.1983-30.09.1985. In collaboration with company BIM. Funded by IWONL (Belgium).
- *Computer Aided Design of Information Systems 1*. 01.10.1981-30.09.1983. In collaboration with company BIM. Funded by IWONL (Belgium).