

Boris Motik

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Curriculum Vitae

Background

- Born on October 16, 1972 in Zagreb, Croatia
- Marital status: single
- Nationality: Croatian
- Foreign languages: fluency in speaking and writing in English and German, elementary knowledge of Spanish

Education

March 2002 – January 2006. PhD degree in the group of Prof. Rudi Studer at the University of Karlsruhe, Germany, completed with honors.

February 1996 – December 1999. Master's degree in computer science at the Faculty of Electrical Engineering and Computing at University of Zagreb, Croatia, GPA 5.00/5.00.

October 1991 – February 1996. Bachelor's degree in electrical engineering at the Faculty of Electrical Engineering and Computing at University of Zagreb, Croatia, GPA 4.97/5.00. In the first, second, and third year I was presented with the faculty award “Josip Lončar” for being the best student of the year. After completing my studies I was granted the faculty award for overall record during all four years of undergraduate studies.

Awards

- Selected as one of “AI's Ten to Watch” by IEEE Intelligent Systems, May/June 2008, pp. 16
- The Cor Baayen 2007 prize awarded by the European Research Consortium for Informatics and Mathematics (ERCIM) for “a most promising young researcher in computer science and applied mathematics”
- Best paper award for the paper “On the Properties of Metamodeling in OWL” at ISWC 2005 [24]
- Faculty award “Josip Lončar” for overall record during all four years of undergraduate studies

Employment History

September 2007 – Present. Research Assistant at the University of Oxford, Oxford, UK; funded by the REOL project, UK EPSRC EP/C537211/1. I am working on various extensions of OWL and related description logic formalisms.

February 2006 – August 2007 Research Fellow at the University of Manchester, Manchester, UK; funded by the REOL project, UK EPSRC EP/C537211/1. I was working on a number of problems related to the integration of knowledge representation formalisms (such as description logics) with conventional data management systems (such as relational databases).

March 2002 – January 2006. Research staff at the Forschungszentrum Information (Research Center for Information Technologies), Karlsruhe, Germany. I worked on my PhD thesis [74], as well as on the following research projects:

- January 2004 – January 2006: DIP, EU IST 507483. I developed the KAON2 ontology management tool, which I also used in my PhD thesis.
- September 2003 – December 2003: Semantic Web-enabled Web Services (SWWS), EU IST 2001-37134. I worked on the discovery of Web services.
- March 2002 – December 2003: Ontologging, EU IST 2000-28293. I developed the open-source KAON¹ ontology management suite. This was the precursor to the KAON2 tool that I developed as part of my PhD research.

April 2001 – December 2001. Senior Developer/Team Leader, Vision GmbH, Munich, Germany (working in a subsidiary in Zagreb, Croatia). I was a leader of a team of five developers working in the Croatian subsidiary of Vision. We were responsible for numerous modules in the Vision's product suite, such as a Web application for management of newspaper advertisements and tools for management of the publishing process. I advised the others on the issues of object-oriented design and was myself mainly working on a client application for Vision's Production Server—the system for the management of the publication process. The projects required knowledge of Java, Swing, XML, and Web application development.

March 2000 – March 2001. Software Developer, Trilogy, Austin, Texas, USA.

- I worked in a team of two developers on the requirements gathering and design of an automated build system. We applied the PSP/TSP project management methodology.
- I worked in a team of four developers on a client application for the management of corporate data. I developed a generic GUI framework and applied it to a pricing information maintenance subsystem, and I also took part in HCI design. The project required knowledge of Java and Swing.
- I worked alone on reengineering the C++ version of the pricing engine and implementing it in Java. The product was integrated into Trilogy's product suite and successfully deployed at several customers. The project required knowledge of database technologies (SQL, JDBC) and profiling techniques (OptimizeIt).

February 1996 – February 2000. I worked as a teaching assistant at the Polytechnic School of Zagreb, Croatia, where I participated in lecturing the following subjects: Electronic Components, Electronic Circuits, and Fundamentals of Electrical Engineering.

¹<http://kaon.semanticweb.org/>

June 1989 – February 2000. During high school and undergraduate studies, I worked for a small company developing accounting database applications in Clipper/DBASE. After graduating from university, I started my own small company called “Infimum” that further developed and maintained these applications. My programs were installed in numerous small and medium-sized companies in Croatia, such as The Plitvice Lakes National Park.² The work required extensive interaction with clients and strong organization skills. I shut down the company before I had left for USA.

Freelance Software Projects

Parallel to my regular employment, I worked on several software projects on a freelance basis.

January 2002 – February 2002. Croatian Mine Action Center, Zagreb, Croatia; funded by the EU-sponsored project “Airborne Minefield Area Reduction (ARC)”, EU-IST-2000-25300. I developed a real-time image acquisition system for high-resolution cameras. The work required careful code optimization and knowledge of C++, MFC, and Windows 98/2000. I was the only designer and programmer.

September 1998 – February 2000. Vision GmbH, Munich, Germany. I was the only software designer and developer on several projects.

- Process manager for Fast-CGI (FCGI) protocol and FCGI client extensions for IIS and Apache Web servers. The project required knowledge of C++, Windows NT, Solaris, Linux, TCP/IP, and network programming.
- Validating XML Editor. The project required knowledge of Windows NT, MFC, C++, and XML.
- An XML-to-PDF converter that reads XML and renders it into a PDF file. The project required knowledge of advanced 2D computer graphics, C++, and Windows NT.

May 1998 – February 1999. VideoCon GmbH, Munich, Germany. I worked in a team of several developers on the following components of a remote surveillance system:

- Windows 9x/NT based user interface (C++, MFC),
- optimization and reengineering of image decoder,
- reengineering of communication module for ISDN and TCP/IP, and
- COM library allowing access to various components from Visual Basic.

This was a technically demanding project (especially the communication module) because of the multiplatform development (servers on Linux and clients on Windows9x/NT), requiring a detailed knowledge of networking. Apart from the image decoder, I was the primary architect and author of the mentioned modules.

²<http://www.np-plitvicka-jezera.hr/>

June 1998 – August 1998. Cromerica (a USA-based company with a subsidiary in Zagreb, Croatia). I designed and implemented a COM interface for a fax server. I worked alone and have used C++ and ATL.

January 1998 – May 1998. I worked in a team of two developers on a program for designing stamps. The project required intimate knowledge of 2D computer graphics, MFC, C++, and Windows 95.

Professional Expertise

Programming languages: C/C++, Java, SQL/OQL, Pascal, Clipper, Fortran, JavaScript
Operating systems: Windows 9x/NT (with excellent knowledge of Win32 API),
Unix (Linux and Solaris) with reasonable knowledge of
Unix APIs
Technologies: MFC, COM, TCP/IP, ATL, CORBA, JDBC, Servlets, JSP,
ISAPI, XML, databases, Swing, UML
Methodologies: Rational Unified Process, Personal Software Process,
Team Software Process, Design Patterns

In 1997, with Julijan Šribar as a coauthor, I published in Croatia a book called *C++ Demystified* [73]. The book presents the ins and outs of the C++ language, and it also provides a brief introduction to object-oriented design and methodology. It was voted the best software engineering book published in Croatia in 1997 by the Croatian IT magazine Bug.³ Ever since the first edition was published, the book has been used at several Croatian universities as a textbook for courses on C++ and programming.

Research-Related Information

Research Interests

Description and nonmonotonic logics, automated theorem proving, relational and deductive databases, languages for conceptual modeling, Semantic Web

I am involved in the development of the Web Ontology Language (OWL) 2 and its standardization at W3C, and have coauthored many documents of the current language draft.⁴

Research Funding

- HermiT: Reasoning with Large Ontologies; Engineering and Physical Sciences Research Council EP/F065841/1; £579,857.00; co-investigator. I am managing the project on a day-to-day basis.
- ConDOR: Consequence-Driven Ontology Reasoning; Engineering and Physical Sciences Research Council EP/G02085X/1; £418,011.57; co-investigator.

³<http://www.bug.hr/>

⁴http://www.w3.org/2007/OWL/wiki/OWL_Working_Group

Invited Talks

- *Semantics and Reasoning Algorithms for a Faithful Integration of Description Logics and Rules*. Keynote speech at the 2008 Int. Conf. on Web Reasoning and Rule Systems (RR 2008), October 31–November 2, 2008, Karlsruhe, Germany
- *SPARQL, Rules and OWL?* Panel at OWL: Experiences and Directions 2007 (OWLED 2007), June 6–7, 2007, Innsbruck, Austria
- *Adding Constraints to OWL*. at The 2nd Int. Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2006), November 5, 2006, Athens, GA, USA
- *My Top Ten Things To Do for more Empirically Successful Computerized Reasoning*. Panel at Workshop on Empirically Successful Computerized Reasoning, August 21, 2006, Seattle, WA, USA
- *Integrating DLs with Logic Programming*. at Workshop on Model Checking and Semantic Web Rule Languages, October 27–28, 2006, Freiburg, Germany
- *Description Logics and Disjunctive Datalog—More Than just a Fleeting Resemblance?* at 4th Workshop on Methods for Modalities (M4M-4), December 1–2, 2005, Berlin, Germany

Reviewing Activities

I was a program committee member at the following conferences and workshops:

- The 21st Int. Joint Conference on Artificial Intelligence (IJCAI 2009), July 11–17, 2009, Pasadena, CA, USA
- The 18th Int. World Wide Web conference (WWW 2009), April 20–24, 2009, Madrid, Spain
- OWL: Experiences and Directions (OWLED 2008 EU), Workshop at ISWC 2008, October 26–27, 2008, Karlsruhe, Germany
- The 7th Int. Semantic Web Conference (ISWC 2008), October 26–30, 2008, Karlsruhe, Germany
- Workshop on Practical Aspects of Automated Reasoning (PAAR 2008), August 10, 2008, Sydney, Australia
- The 2nd Int. Conference on Web Reasoning and Rule Systems (RR 2008), October 31–November 2, 2008, Karlsruhe, Germany
- The 18th European Conference on Artificial Intelligence (ECAI 2008), July 21–25, 2008, Patras, Greece
- The 23rd AAAI Conference on Artificial Intelligence (AAAI 2008), July 13–17, 2008, Chicago, IL, USA

- The 5th Int. European Semantic Web Conference (ESWC 2008), June 1–5, 2008, Tenerife, Spain
- The 3rd Int. Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2007) at the OTM conferences, Portugal, November 25–30, 2007, Vilamoura, Algarve
- The 6th Int. Semantic Web Conference (ISWC 2007), November 11–15, 2007, Busan, Korea
- Workshop on Building and Applying Ontologies for the Semantic Web (BAOSW 2007) at the 13th Portuguese Conference on Artificial Intelligence (EPIA 2007), December 3–3, Guimarães, Portugal
- IEEE/WIC/ACM Int. Joint Conf. on Web Intelligence (WI 2007), November 2–5, 2007, Silicon Valley, USA
- OWL: Experiences and Directions (OWLED 2007), Workshop at ESWC 2007, June 6–7, 2007, Innsbruck, Austria
- The 6th Int. Conf. on Ontologies, DataBases, and Applications of Semantics (ODBASE 2007), October 28–November 2, 2007, Spain
- The 4th Int. European Semantic Web Conference (ESWC 2007), June 3–7, 2007, Innsbruck, Austria
- The 2nd Int. Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2006), November 5, 2006, Athens, GA, USA
- Reviewer for 20th Int. Joint Conference on Artificial Intelligence (IJCAI 2007), January 6–12, 2007, Hyderabad, India
- The 2nd Int. Workshop on Meta-modelling and Ontologies (WoMM 2006), October 12–13, 2006, Karlsruhe, Germany
- The 2nd Int. Conference on Rules and Rule Markup Languages for the semantic Web (RuleML 2006), November 9–10, 2006, Athens, GA, USA
- OWL: Experiences and Directions (OWLED 2006), Workshop at ISWC 2006, November 10–11, 2006, Athens, GA, USA
- The 5th Int. Semantic Web Conference (ISWC 2006), November 5–9, 2006, Athens, GA, USA
- The 12th Int. Conf. on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2006), September 13–15, 2006, Varna, Bulgaria
- Workshop on Reasoning on the Web (RoW2006) at 15th International World Wide Web Conference (WWW 2006), May 22, 2006, Edinburgh, UK
- The 3rd Int. European Semantic Web Conference (ESWC 2006), June 11–14, 2006, Budva, Serbia and Montenegro

- OWL: Experiences and Directions (OWLED 2005), Workshop at ISWC 2005, November 11–12, 2005, Galway, Ireland
- The 4th Int. Semantic Web Conference (ISWC 2005), November 6–10, 2005, Galway, Ireland
- The 4th Int. Conf. on Ontologies, DataBases, and Applications of Semantics (ODBASE 2005), October 31–November 4, 2005, Agia Napa, Cyprus
- Workshop on Building and Applying Ontologies for the Semantic Web (BAOSW 2005) at the 12th Portuguese Conference on Artificial Intelligence (EPIA 2005), December 5–8, Covilhã, Portugal
- Workshop on Protégé with Rules at 8th Int. Protégé Conference, July 18–21, 2005, Madrid, Spain
- IEEE/WIC/ACM Int. Joint Conf. on Web Intelligence (WI 2005), September 19–22, 2005, in Compiègne University of Technology, France
- IADIS Int. Conf. on WWW/Internet (ICWI 2005), October 19–22, 2004, Lisbon, Portugal
- IEEE/WIC/ACM Int. Joint Conf. on Web Intelligence (WI 2004), September 20–24, 2004, Beijing, China
- IADIS Int. Conf. on WWW/Internet (ICWI 2004), October 6–9, 2004, Madrid, Spain
- The 11th Int. Conf. on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2004), September 2–4, 2004, Varna, Bulgaria
- Workshop on Ontologies and their Applications, September 28, 2004, Sao Luis, Maranhao - Brazil

I was also a reviewer for the following journals:

- AI Communications
- Information Sciences
- Knowledge and Information Systems
- Annals of Mathematics and Artificial Intelligence
- IEEE Internet Computing
- International Journal of Semantic Computing
- Journal of Logic and Computation
- Journal of Universal Computer Science
- Artificial Intelligence

- Journal of Applied Logic
- IEEE Intelligent Systems
- IEEE Transactions on Knowledge and Data Engineering
- Elsevier's Journal of Web Semantics
- Springer's Journal of Automated Reasoning
- Journal of Applied Non-Classical Logics
- Journal of Brazilian Computer Society, Special Issue on Ontology Issues and Applications

I was on the editorial board of the Special Issue on Commonsense Reasoning for the Semantic Web in the Journal of Annals of Mathematics and Artificial Intelligence (AMAI).

Organizational Activities

- Program chair of The 22nd Int. Workshop on Description Logics (DL 2009), July 27–29, 2009, Oxford, UK
- Member of the organizational committee of IJCAI-09 Workshop on Graph Structures for Knowledge Representation and Reasoning (GKR 2009), July 11–13, 2009, Pasadena, CA, USA
- Program chair of The 20th Int. Workshop on Description Logics (DL 2007), June 8–10, 2007, Brixen–Bressanone, Italy

Publication List

Journal Publications

- [1] Bernardo Cuenca Grau, Ian Horrocks, Boris Motik, Bijan Parsia, Peter Patel-Schneider, and Ulrike Sattler. OWL 2: The next step for OWL. *Journal of Web Semantics: Science, Services and Agents on the World Wide Web*, 6(4):309–322, 2008.
- [2] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. Deciding Expressive Description Logics in the Framework of Resolution. *Information & Computation*, 206(5):579–601, 2008.
- [3] Yevgeny Kazakov and Boris Motik. A Resolution-Based Decision Procedure for *SHOIQ*. *Journal of Automated Reasoning*, 40(2–3):89–116, 2008.
- [4] Boris Motik. On the Properties of Metamodeling in OWL. *Journal of Logic and Computation*, 17(4):617–637, 2007.
- [5] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. Reasoning in Description Logics by a Reduction to Disjunctive Datalog. *Journal of Automated Reasoning*, 39(3):351–384, 2007.
- [6] Boris Motik, Ulrike Sattler, and Rudi Studer. Query Answering for OWL-DL with Rules. *Journal of Web Semantics: Science, Services and Agents on the World Wide Web*, 3(1):41–60, 2005.

- [7] Raphael Volz, Steffen Staab, and Boris Motik. Incrementally Maintaining Materializations of Ontologies Stored in Logic Databases. *Journal of Data Semantics II*, 3360:1–34, 2005. LNCS, Springer.
- [8] Alexander Maedche, Boris Motik, and Ljiljana Stojanovic. Managing multiple and distributed ontologies on the semantic web. *VLDB Journal*, 12(4):286–302, 2003.
- [9] Alexander Maedche, Boris Motik, Ljiljana Stojanovic, Rudi Studer, and Raphael Volz. Ontologies for Enterprise Knowledge Management. *IEEE Intelligent Systems*, 18(2):26–33, 2003.
- [10] Alexander Maedche and Boris Motik. Repräsentations- und Anfragesprachen für Ontologien—eine Übersicht. *Datenbank-Spektrum*, 6:43–53, 2003. In German.

Conference Publications

- [11] Boris Motik and Ian Horrocks. OWL Datatypes: Design and Implementation. In Amit P. Sheth, Steffen Staab, Mike Dean, Massimo Paolucci, Diana Maynard, Timothy Finin, and Krishnaprasad Thirunarayan, editors, *Proc. of the 7th Int. Semantic Web Conference (ISWC 2008)*, volume 5318 of *LNCS*, pages 307–322, Karlsruhe, Germany, October 26–30 2008. Springer.
- [12] Boris Motik, Bernardo Cuenca Grau, Ian Horrocks, and Ulrike Sattler. Representing Structured Objects using Description Graphs. In Gerhard Brewka and Jérôme Lang, editors, *Proc. of the 11th Int. Joint Conf. on Principles of Knowledge Representation and Reasoning (KR 2008)*, pages 296–306, Sydney, NSW, Australia, August 16–19 2008. AAAI Press.
- [13] Boris Motik and Ian Horrocks. Individual Reuse in Description Logic Reasoning. In Alessandro Armando, Peter Baumgartner, and Gilles Dowek, editors, *Proc. of the 4th Int. Joint Conf. on Automated Reasoning (IJCAR 2008)*, volume 5195 of *LNAI*, pages 242–258, Sydney, NSW, Australia, August 12–15 2008. Springer.
- [14] Thanh Tran Duc, Peter Haase, Boris Motik, Bernardo Cuenca Grau, and Ian Horrocks. Metalevel Information in Ontology-Based Applications. In Dieter Fox and Carla P. Gomes, editors, *Proc. of the 23rd AAAI Conf. on Artificial Intelligence (AAAI 2008)*, pages 1237–1242, Chicago, IL, USA, July 13–17 2008. AAAI Press.
- [15] Boris Motik, Bernardo Cuenca Grau, and Ulrike Sattler. Structured Objects in OWL: Representation and Reasoning. In Jinpeng Huai, Robin Chen, Hsiao-Wuen Hon, Yunhao Liu, Wei-Ying Ma, Andrew Tomkins, and Xiaodong Zhang, editors, *Proc. of the 17th Int. World Wide Web Conference (WWW 2008)*, pages 555–564, Beijing, China, April 21–25 2008. ACM Press.
- [16] Christine Golbreich, Matthew Horridge, Ian Horrocks, Boris Motik, and Rob Shearer. OBO and OWL: Leveraging Semantic Web Technologies for the Life Sciences. In Karl Aberer, Key-Sun Choi, Natasha Fridman Noy, Dean Allemang, Kyung-Il Lee, Lyndon J. B. Nixon, Jennifer Golbeck, Peter Mika, Diana Maynard, Riichiro Mizoguchi, Guus Schreiber, and Philippe Cudré-Mauroux, editors, *Proc. of the 6th Int. Semantic Web*

- Conference (ISWC 2007)*, volume 4825 of *LNCS*, pages 169–182, Busan, Korea, November 11–15 2007. Springer.
- [17] Boris Motik, Rob Shearer, and Ian Horrocks. Optimized Reasoning in Description Logics using Hypertableaux. In Frank Pfenning, editor, *Proc. of the 21st Conference on Automated Deduction (CADE-21)*, volume 4603 of *LNAI*, pages 67–83, Bremen, Germany, July 17–20 2007. Springer.
 - [18] Boris Motik, Ian Horrocks, and Ulrike Sattler. Bridging the Gap Between OWL and Relational Databases. In Carey L. Williamson, Mary Ellen Zurko, Peter F. Patel-Schneider, and Prashant J. Shenoy, editors, *Proc. of the 16th International World Wide Web Conference (WWW 2007)*, pages 807–816, Banff, AB, Canada, May 8–12 2007. ACM Press.
 - [19] Boris Motik and Riccardo Rosati. A Faithful Integration of Description Logics with Logic Programming. In Manuela M. Veloso, editor, *Proc. of the 20th Int. Joint Conference on Artificial Intelligence (IJCAI 2007)*, pages 477–482, Hyderabad, India, January 6–12 2007. Morgan Kaufmann Publishers.
 - [20] Boris Motik, Ian Horrocks, Riccardo Rosati, and Ulrike Sattler. Can OWL and Logic Programming Live Together Happily Ever After? In Isabel F. Cruz, Stefan Decker, Dean Allemang, Chris Preist, Daniel Schwabe, Peter Mika, Michael Uschold, and Lora Aroyo, editors, *Proc. of the 5th Int. Semantic Web Conference (ISWC 2006)*, volume 4273 of *LNCS*, pages 501–514, Athens, GA, USA, November 5–9 2006. Springer.
 - [21] Boris Motik and Ulrike Sattler. A Comparison of Reasoning Techniques for Querying Large Description Logic ABoxes. In Miki Hermann and Andrei Voronkov, editors, *Proc. of the 13th Int. Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR 2006)*, volume 4246 of *LNCS*, pages 227–241, Phnom Penh, Cambodia, November 13–17 2006. Springer.
 - [22] Yevgeny Kazakov and Boris Motik. A Resolution-Based Decision Procedure for *SHOIQ*. In Ulrich Furbach, John Harrison, and Natarajan Shankar, editors, *Proc. of the 3rd Int. Joint Conference on Automated Reasoning (IJCAR 2006)*, volume 4130 of *LNAI*, pages 662–667, Seattle, WA, USA, August 17–20 2006. Springer.
 - [23] Stephan Grimm, Boris Motik, and Chris Preist. Matching Semantic Service Descriptions with Local Closed-World Reasoning. In York Sure and John Domingue, editors, *Proc. of the 3rd European Semantic Web Conference (ESWC 2006)*, volume 4011 of *LNCS*, pages 575–589, Budva, Montenegro, June 11–14 2006. Springer.
 - [24] Boris Motik. On the Properties of Metamodeling in OWL. In Yolanda Gil, Enrico Motta, Richard V. Benjamins, and Mark Musen, editors, *Proc. of the 4th Int. Semantic Web Conference (ISWC 2005)*, volume 3729 of *LNCS*, pages 548–562, Galway, Ireland, November 6–10 2005. Springer.
 - [25] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. Data Complexity of Reasoning in Very Expressive Description Logics. In Leslie Pack Kaelbling and Alessandro Saffiotti, editors, *Proc. of the 19th Int. Joint Conference on Artificial Intelligence (IJCAI 2005)*, pages 466–471, Edinburgh, UK, July 30–August 5 2005. Morgan Kaufmann Publishers.

- [26] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. A Decomposition Rule for Decision Procedures by Resolution-based Calculi. In Franz Baader and Andrei Voronkov, editors, *Proc. of the 11th Int. Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR 2004)*, volume 3452 of *LNAI*, pages 21–35, Montevideo, Uruguay, March 14–18 2005. Springer.
- [27] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. Reducing $SHIQ^-$ Description Logic to Disjunctive Datalog Programs. In Didier Dubois, Christopher A. Welty, and Mary-Anne Williams, editors, *Proc. of the 9th Int. Conference on Principles of Knowledge Representation and Reasoning (KR 2004)*, pages 152–162, Whistler, Canada, June 2–5 2004. AAAI Press.
- [28] Ullrich Hustadt, Boris Motik, and Ulrike Sattler. Reasoning in Description Logics with a Concrete Domain in the Framework of Resolution. In Ramon López de Mántaras and Lorenza Saïtta, editors, *Proc. of the 16th European Conference on Artificial Intelligence (ECAI 2004)*, pages 353–357, Valencia, Spain, August 22–27 2004. IOS Press.
- [29] Boris Motik, Ulrike Sattler, and Rudi Studer. Query Answering for OWL-DL with Rules. In Sheila A. McIlraith, Dimitris Plexousakis, and Frank van Harmelen, editors, *Proc. of the 3rd Int. Semantic Web Conference (ISWC 2004)*, volume 3298 of *LNCS*, pages 549–563, Hiroshima, Japan, November 7–11 2004. Springer.
- [30] Gábor Nagypál and Boris Motik. A Fuzzy Model for Representing Uncertain, Subjective, and Vague Temporal Knowledge in Ontologies. In Robert Meersman, Zahir Tari, and Douglas C. Schmidt, editors, *Proc. of the 2003 Int. Conference on Ontologies, Databases and Applications of SEMantics (ODBASE 2003)*, volume 2888 of *LNCS*, pages 906–923, Catania, Italy, November 3–7 2003. Springer.
- [31] Raphael Volz, Steffen Staab, and Boris Motik. Incremental Maintenance of Materialized Ontologies. In Robert Meersman, Zahir Tari, and Douglas C. Schmidt, editors, *Proc. of the 2003 Int. Conference on Ontologies, Databases and Applications of SEMantics (ODBASE 2003)*, volume 2888 of *LNCS*, pages 707–724, Catania, Italy, November 3–7 2003. Springer.
- [32] Alexander Maedche, Boris Motik, Ljiljana Stojanovic, Rudi Studer, and Raphael Volz. An infrastructure for searching, reusing and evolving distributed ontologies. In *Proc. of the 12th International World Wide Web Conference (WWW 2003)*, pages 439–448, Budapest, Hungary, May 20–24 2003.
- [33] Raphael Volz, Daniel Oberle, Steffen Staab, and Boris Motik. KAON SERVER — A Semantic Web Management System. In *Alternate Track Proc. of the 12th International World Wide Web Conference (WWW 2003)*, Budapest, Hungary, May 20–24 2003.
- [34] Boris Motik, Alexander Maedche, and Raphael Volz. A Conceptual Modeling Approach for Semantics-Driven Enterprise Applications. In Robert Meersman and Zahir Tari, editors, *Proc. of the 2002 Int. Conference on Ontologies, Databases and Applications of SEMantics (ODBASE 2002)*, volume 2519 of *LNCS*, pages 1082–1099, Irvine, CA, USA, 2002. Springer.

- [35] Erol Bozsak, Marc Ehrig, Siegfried Handschuh, Andreas Hotho, Alexander Maedche, Boris Motik, Daniel Oberle, Christoph Schmitz, Steffen Staab, Ljiljana Stojanovic, Nenad Stojanovic, Rudi Studer, Gerd Stumme, York Sure, Julien Tane, Raphael Volz, and Valentin Zacharias. KAON — Towards a Large Scale Semantic Web. In Kurt Bauknecht, A. Min Tjoa, and Gerald Quirchmayr, editors, *Proc. of the 3rd Int. Conference on E-Commerce and Web Technologies (EC-Web 2002)*, volume 2455 of *LNCS*, pages 304–313, Aix-en-Provence, France, September 2–6 2002. Springer.
- [36] Alexander Maedche, Boris Motik, Nuno Silva, and Raphael Volz. MAFRA — A Mapping FRAmework for Distributed Ontologies. In Asunción Gómez-Pérez and Richard V. Benjamins, editors, *Proc. of the 13th Int. Conference on Knowledge Engineering and Knowledge Management (EKAW 2002)*, volume 2473 of *LNAI*, pages 235–250, Sigüenza, Spain, October 1–4 2002. Springer.
- [37] Ljiljana Stojanovic, Alexander Maedche, Boris Motik, and Nenad Stojanovic. User-Driven Ontology Evolution Management. In Asunción Gómez-Pérez and Richard V. Benjamins, editors, *Proc. of the 13th Int. Conference on Knowledge Engineering and Knowledge Management (EKAW 2002)*, volume 2473 of *LNAI*, pages 285–300, Sigüenza, Spain, October 1–4 2002. Springer.
- [38] Alexander Maedche, Boris Motik, Ljiljana Stojanovic, Rudi Studer, and Raphael Volz. Managing Multiple Ontologies and Ontology Evolution in Ontologging. In Mark A. Musen, Bernd Neumann, and Rudi Studer, editors, *Proc. of the 17th Int. Federation for Information Processing Congress (IFIP 2002)*, volume 221 of *IFIP Conference Proceedings*, pages 51–63, Montréal, Québec, Canada, August 25–30 2002. Kluwer.
- [39] Boris Motik and Vlado Glavinić. Enabling Agent Architecture through an RDF Query and Inference Engine. In *Proc. of the 10th Mediterranean Electrotechnical Conference (MELECON 2000)*, volume II, pages 762–765, Lemesos, Cyprus, May 29–31 2000.
- [40] Vlado Glavinić and Boris Motik. Agent-Oriented Information Retrieval and Processing. In Damir Kalpić and Vesna Hljuz-Dobrić, editors, *Proc. 20th Int. Conference on Information Technology Interfaces (ITI '98)*, pages 163–168, Pula, Croatia, June 16–19 1998.
- [41] Vlado Glavinić and Boris Motik. Object-Oriented Interface to MMS Services. In *Proc. of the 9th Mediterranean Electrotechnical Conference (MELECON '98)*, volume II, pages 1375–1379, Tel-Aviv, Israel, May 18–20 1998.
- [42] Vlado Glavinić and Boris Motik. On PC-Based MMS Implementations. In *Proc. of the 20th Int'l Convention Managing for Efficiency and Innovation (MIPRO '97)*, pages 193–196, Opatija, Croatia, May 19–23 1997.
- [43] Vlado Glavinić and Boris Motik. G-LOTOS Visual Development Environment. In *Proc. of the 8th Mediterranean Electrotechnical Conference (MELECON '96)*, volume I, pages 136–139, Bari, Italy, May 13–16 1996.
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