

# Curriculum Vitæ

**Dr. Alessandro Artale**

August 23, 2010

Born in Palermo, Italy, July the 25<sup>th</sup>, 1964.  
Citizenship: Italian.

## Current Position

Ricercatore Confermato (Assistant Professor)  
Faculty of Computer Science  
Free University of Bozen-Bolzano  
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**Date of appointment:** 1/09/2003

## Research Summary

- **h-index.** 17 (Google Scholar)
- **Total funds as Principal Investigator.** 236,000 €
- **Number of publications.** 71
  - **International Journals.** 11
  - **International Conferences.** 42
  - **Book Chapters.** 7
  - **National Publications.** 8

## Teaching Activity

### Courses Taught: Undergraduate

**1994-95.** Compilers and Formal Languages.

Module leader (Responsabile Didattico), University of Siena (Italy), Dept. of Engineering and Computer Science (3<sup>rd</sup> year).

**1998-99. Artificial Intelligence.**

University of Brescia, IT, Dept. of Engineering and Computer Science (5<sup>th</sup> year). Invitation to give two guest lectures on “Structural and Propositional Description Logics”. Module leader Prof. Alfano Gerevini.

**1999-2000. Emerging Technologies in Information Management.**

Module co-leader (together with Dr. Babis Theodoulidis), UMIST, Dept. of Computation, UK (3<sup>rd</sup> year).

**1999-2000. Database Theory.**

Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK (2<sup>nd</sup> year). *Number of students: 320.*

**2000-03. Database Technology.**

Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK (2<sup>nd</sup> year). *Number of students: 240.*

**2003-04. Databases 2.**

Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3<sup>rd</sup> year).

**2003-10. Principles of Compilers.**

Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3<sup>rd</sup> year).

**Courses Taught: Master in CS (Laurea Specialistica)****2002-03. Databases.**

Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK.

**2004-10. Formal Methods.**

Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT.

**Supervision**

I supervised students at all levels: PhD, MPhil, Master (Laurea Specialistica) and Bachelor (Laurea).

I have been nominated external examiner in PhD commissions of the following Universities: UMIST – Manchester, UK; School of Computer Science, Univ. of Manchester, UK; EPFL – Lausanne, CH.

**Educational Curriculum**

**PhD in Computer Science.** University of Florence (Italy), Dept. of Engineering and Computer Science, September 1994.

*PhD Thesis:* “Rappresentazione di Tempo ed Azioni e Ragionamento Tassonomico per Basi di Dati ad Oggetti Complessi nel Contesto dei Linguaggi Terminologici” (Time and Action Representation and Taxonomic Reasoning for Object-Oriented Databases).

**University of Florence.** Degree in Electronic Engineering (5 year course), 110/110 ‘cum laude’, July 1990.

*Degree Thesis:* “Modelli Semantici per Basi di Dati e Ragionamento Tassonomico”, (Semantic Data Models for Databases and Taxonomic Reasoning).

**Scientific Liceum.** G.B.Morgagni, Florence (5 year school), “diploma” in 1982.

**Previous Appointments**

**February-2005** Invited Professor at EPFL-Lausanne at the Database Laboratory (LBD) headed by Prof. Stefano Spaccapietra.

**1999-2003.** Lecturer (Grade B) with tenure at the Department of Computation, UMIST, University of Manchester, UK.

- 1996-99.** Senior Researcher at the IRST institute (Institute for the Technological and Scientific Research, Trento, Italy) in the research division headed by Oliviero Stock. Research activity in Knowledge Representation, Formal Ontology, and Natural Language Semantics. Activity in European funded projects.
- 1995-96.** Post-doctoral position at the Department of Engineering and Computer Science, University of Florence, Italy.
- 1993-94.** Fellowship at the LADSEB-CNR (National Research Center) of Padova, Italy, involved in the project “Applications of Artificial Intelligence to Robotics”. Research experience in the group headed by Nicola Guarino with studies on spatio-temporal formal ontologies.
- 1992.** Guest Researcher at the AT&T Bell Laboratories, Murray Hill, USA. Collaboration with Ron Brachman, Diane Litman and Prem Devambu investigating the problem of plans representation.
- 1990-93.** PhD. student at the Dept. of Engineering and Computer Science, University of Florence, Italy. Research work on: Description Logics, Temporal logics, Planning and Actions Representation, O-O Databases.

## Scholarships

- 1995-1996.** Post-Doc scholarship, Dept. of Engineering and Computer Science, University of Florence, Italy.
- 1993-1994.** Italian National Research Council (CNR) scholarship, LADSEB-CNR of Padova, Italy.
- 1990-1993.** PhD scholarship, Dept. of Engineering and Computer Science, University of Florence, Italy.

## Research Activity

The main research interest is in providing formal theories and efficient principled systems for expressing and reasoning with structured knowledge, with an emphasis on their use for conceptual modeling tasks in domains with high semantic complexity. My current research involvement includes Knowledge Representation and Reasoning using formal logic languages, with a particular emphasis on Description Logics and Temporal Logics.

Description logics (DLs) are a family of logics developed over the past three decades in knowledge representation and reasoning, that in recent years have been widely used in various application areas, ranging from conceptual modelling, to information and data integration, to ontology-based data access, and the Semantic Web. Indeed, description logics are the formalisms underlying the standard Ontology Web Language OWL (<http://www.w3.org/2007/OWL/>), which is now in the process of being standardized by the W3C in its second edition, OWL 2.

One of the topics of my research is concerned with studying extensions for description logics to include ontological categories like parts, time and spatial entities. In particular, I’m interested in the computational properties of these description logics’ extensions with the aim of developing a formal language for representing and reasoning with spatio-temporal dependent information. In this respect, I investigated various temporal extensions of the classical DL setting applying them also to the design of temporal Databases. Furthermore, the notion of “parts and wholes” has been deeply investigated and its use both in DLs and in Conceptual models has been studied.

Another aspect of my research is concerned with the use of description logics in a different context, namely that of providing access to large amounts of data through a high level, conceptual interface. This is of relevance both in data integration and in ontology-based data access. In this setting, an additional fundamental inference service, is the one of *answering* complex database like *queries*, i.e., queries expressed in (a significant fragment of) SQL, by taking into account the constraints in the ontology, and the data stored in the (external) Database. A key property for such an approach to be viable in practice is that the processing of queries can be done, ideally, as efficiently as traditional database query processing, and that it can be done by leveraging the relational technology already used for storing the data. With these objectives in mind, I’m studying the computational and expressive property of the DL-Lite family of logics.

## **Funded Research Projects – Principal Investigator**

- 2008-10.** Principal Investigator of the Province of Bozen funded project “*Data Expiration*”. Funding: 130,000 €.
- 2004-13.** Principal Investigator of the Univ. of Bozen funded project “*Formalization of Temporal Databases*”. Funding: 32,341 €.
- 2001-04.** Principal Investigator of the EPSRC Fast-Track project “*Formalizing the Design of Temporal Databases Using Description Logics*”. The research concentrates on the design phase of temporal databases, with the aim to establish a logic-based formalization for capturing temporal extended conceptual models (like, Entity-Relationships and UML models). Three years funding: £63,137 sterling.

## **Funded Research Projects – Member**

- 2006-08.** Member of the TONES Project (Thinking ONtologiES), STREP FET project financed within the European Union 6th Framework Programme under contract number FP6-7603.
- 2004-08.** Member the European IST Network of Excellence on Realizing the Semantic Web (KnowledgeWeb – FP6-507482). Supporting the transition process of Ontology technology from Academia to Industry is the main and major goal of KnowledgeWeb.
- 2004-07.** Member the European IST Network of Excellence on Interoperability Research for Networked Enterprises Applications and Software (InterOp – IST-508011). INTEROP aims to create the conditions of an innovative and competitive research in the domain of Interoperability for Enterprise Applications and Software.
- 1996-99.** IRST member (Principal investigator starting from October 1998) of the ESPRIT-4 LongTerm Research (LTR) project “*Foundations of Data Warehouse Quality*” (DWQ). The goal of the project was to develop a semantic foundation of data warehouses to allow the designer to link the choice of deeper models, richer data structures and rigorous implementation techniques to quality-of-service factors in a systematic manner, thus improving the design, operation, and evolution of data warehouse applications.
- 1996-98.** IRST member of the ESPRIT-4 project “*Transparent Access to Multiple Information for the Citizen - Pensions*” (TAMIC-P). TAMIC-P was a project in the EXPRIT-4 Telematics Language Engineering Applications framework. The objective was to build a natural language based interface to improve the way citizens can obtain information about their social security.
- 1994-95.** LADSEB-CNR member of the Italian National Research Council (CNR) project “*Ontological and Linguistic Tools for Conceptual Modeling*”. The goal of the project was the study of ontological and linguistic tools for the domain analysis phase within the conceptual design of data and knowledge bases.
- 1990-93.** University of Firenze member of the Italian National Research Council (CNR) funded project “*Information Systems and parallel Computation*”, area “Advanced Database Systems”. The goal of the project was the study and the development of the advanced object-oriented database LOGIDATA+. The new system allows the definition of data with complex structure coupled with powerful query and update languages.

## **Editorial Activity**

- 2004.** Co-Editor of the special issue *Temporal Representation and Reasoning*, Journal of Logic and Computation, Oxford University Press. Editors: A. Artale, C. Dixon, M. Fisher and E. Franconi, Volume 14(1), February 2004.
- 2002.** Co-Editor of the proceedings of the International Symposium on “*Temporal Representation and Reasoning*” TIME02, IEEE Computer Society Press. Editors: A. Artale and M. Fisher. July 2002.
- 2001.** Guest Editor of the special issue on “*Management of Temporal Information*”, AI\*IA notizie, Journal of the Italian Association for Artificial Intelligence. March 2001.

## **Program Committee Activity – Chair**

- June 2008.** General Chair of the 15<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2008), Montreal, Canada, June 2008.
- July 2002.** Program Co-Chair of the 9<sup>th</sup> International Symposium on “*Temporal Representation and Reasoning*” TIME02, Manchester, July 4-6, 2002.

## **Program Committee Activity – PC Member**

- November 2010.** Member of the Program Committee of the 4<sup>th</sup> “*International Workshop on Ontology Dynamics*” (IWOD-2010), Shanghai, China, 8 November 2010.
- September 2010.** Member of the Program Committee of the 17<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2010), Paris, France, 6-8 September 2010.
- August 2010.** Member of the Programme Committee of the 19<sup>th</sup> “*European Conference on Artificial Intelligence*” (ECAI-10), Lisbon, Portugal, 16-20 August 2010.
- July 2010.** Member of the Programme Committee of the 24<sup>th</sup> “*AAAI Conference on Artificial Intelligence*” (AAAI-10), Atlanta, Georgia, USA, July 2010.
- July 2010** Member of the programme committee of the 25<sup>th</sup> “*Convegno Italiano di Logica Computazionale*” (CILC10), Università della Calabria, IT, 7-9 July 2010.
- May 2010.** Member of the Program Committee of the 23<sup>rd</sup> “*International Workshop on Description Logics*” (DL10), Waterloo, Canada, 4-7 May 2010.
- June 2009.** Member of the Programme Committee of the 6<sup>th</sup> “*European Semantic Web Conference*” (ESWC-09), Heraklion, Greece, May-June 2009.
- September 2008.** Member of the programme committee of the Conference on “*Advances in Modal Logic 2008*” (AIML08), Nancy, France, 9-12 September 2008.
- September 2008.** Member of the programme committee of the European Conference on “*Logics in Artificial Intelligence*” (JELIA08), Dresden, Germany, 28-1 September-October 2008.
- July 2008** Member of the programme committee of the 23-th “*Convegno Italiano di Logica Computazionale*” (CILC08), Perugia, IT, 10-12 July 2008.
- June 2008.** Member of the Programme Committee of the 5<sup>th</sup> “*European Semantic Web Conference*” (ESWC-08), Tenerife, Spain, June 2008.
- June 2008.** Member of the programme committee of the 16<sup>th</sup> *Italian Symposium on Advanced Database Systems* (SEBD08), Palermo, Italy, 22-25 June 2008.
- May 2008.** Member of the Program Committee of the *International Workshop on Description Logics*, DL2008, Dresden, Germany, May 2008.
- June 2007.** Member of the Program Committee of the 14<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2007), Alicante, Spain, June 2007.
- June 2007.** Member of the Programme Committee of the 4<sup>th</sup> “*European Semantic Web Conference*” (ESWC-07), Innsbruck, Austria, June 2007.
- June 2007.** Member of the Program Committee of the *International Workshop on Description Logics*, DL2007, Brixen-Bressanone, Italy, June 2007.
- November 2006.** Member of the programme committee of the 4<sup>th</sup> “*International Workshop on Evolution and Change in Data Management*” (ECDM 2006), Tucson, Arizona, November 2006.
- September 2006.** Member of the programme committee of the Conference on “*Advances in Modal Logic 2006*” (AIML06), Queensland, Australia, 2006.

- June 2006.** Member of the Program Committee of the 13<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2006), Budapest, Hungary, 2006.
- August 2005.** Member of the programme committee of the “*9th International Symposium on Spatial and Temporal Databases*” (SSTD05), Angra dos Reis, Brazil, August 22-24, 2005.
- October 2005.** Member of the programme committee of the “*International Conference on Ontologies, Databases and Applications of SEmantics*” (ODBASE-05), Agia Napa, Cyprus, Oct 31-Nov 4, 2005.
- July 2005.** Member of the programme committee of the “*International Workshop on Description Logics*” (DL-05), Edinburgh, UK, July 2005.
- November 2004.** Member of the programme committee of the 3<sup>rd</sup> “*International Workshop on Evolution and Change in Data Management*” (ECDM 2004), Shanghai, China, November 2004.
- July 2004.** Member of the Program Committee of the 11<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2004), Tatihou, France, July 1-3, 2004.
- July 2003.** Member of the Program Committee of the 10<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” and of the 4<sup>th</sup> “*International Conference on Temporal Logic*” (TIME-ICTL-2003), Cairns, Queensland, Australia, July 8-10, 2003.
- July 2002.** Member of the Program Committee of the *European Symposium for Young Researchers in Artificial Intelligence STAIRS-2002*, in conjunction with ECAI’02, Lyon, France, July 22-23, 2002.
- August 2000.** Member of the Program Committee of the *International Workshop on Description Logics*, DL2000, Aachen, Germany, August 17-19, 2000.

### Conferences – Organization Chair

- 2009.** Responsible for the organization of the *International Symposium on Temporal Representation And Reasoning* (TIME-09) in Bolzano, Italy, acting as a Organization Chair.
- 2002.** Responsible for the organization of the *International Symposium on Temporal Representation And Reasoning* (TIME-02) in Manchester, UK, acting as a Program Co-Chair.
- 1998.** Responsible for the organization of the *International Conference on Formal Ontology in Information Systems* (FOIS-98), in Trento, Italy, acting as Organization Chair.

### Invited Speaker & Research Seminars

- August 2000.** *Temporal Description Logics and their Applications.* Invited speaker at the International Workshop on Many-dimensional Logical Systems (ESSLLI-2000), Birmingham, UK.
- July 1995.** *Knowledge Representation and Reasoning Using Description Logics.* Invited seminar at the University of Florence, Italy.
- January 1993.** *A Unified Framework for Representing Time, Actions and Plans.* Invited seminar at the “Istituto di Ricerca Scientifica e Tecnologica”, IRST, Trento, Italy.
- June 1992.** *A Description Logic for Time and Actions.* Invited seminar at the Dept. of Artificial Intelligence, AT&T Bell Laboratories, N.J., USA.

### Referee Activity

**Conferences.** International Joint Conference on Artificial Intelligence (IJCAI); International Conference of the American Association for Artificial Intelligence (AAAI); European Conference on Artificial Intelligence (ECAI); International Conference on Knowledge Representation and Reasoning (KR); International Conference on Formal Ontology in Information Systems (FOIS); International Workshop on Description Logics (DL); International Workshop ‘Methods for Modalities’ (M4M); Conference of the Italian Association

for Artificial Intelligence (AI\*IA); European Symposium for Young Researchers in Artificial Intelligence (STAIRS); ESSLLI student session; International Symposium on Temporal Representation and Reasoning (TIME); International Symposium on Spatial and Temporal Databases (SSTD); European Conference on Semantic Web (ESWC); International Conference on Ontologies, Databases and Applications of Semantics (ODBASE); Advances in Modal Logic (AIML).

**Journals.** Information Systems – An International Journal, North-Holland/Elsevier; International Journal on Data and Knowledge Engineering, North-Holland/Elsevier; Journal of Logic and Computation, Oxford University Press; Cognitive Science, North-Holland/Elsevier; Studia Logica, Kluwer Academic Press; International Journal of Information Technology, Singapore Computer Society; Journal of Applied Logic, Elsevier; AI\*IA notizie, Journal of the Italian Association for Artificial Intelligence.

## Project Reviewer

- European Commission: Independent Expert for the 7th Research Programme (FP7), 2007.
- EPSRC (Engineering and Physical Sciences Research Council, UK) Fast-Track project referee, 2001.
- Referee for the Distinguished Dissertation Award, UK, 2001.

## Publications

### Journals

- [J-1] A. Artale, D. Calvanese, R. Kontchakov, and M. Zakharyashev. The DL-Lite family and relations. *Journal of Artificial Intelligence Research (JAIR)*, 36:1–69, 2009.
- [J-2] M. Keet and A. Artale. Representing and reasoning over a taxonomy of part-whole relations. *Applied Ontology*, 3(1-2):91–110, 2008. IOS Press.
- [J-3] A. Artale, C. Parent, and S. Spaccapietra. Evolving objects in temporal information systems. *Annals on Mathematics and Artificial Intelligence (AMAI)*, 50:5–38, 2007. Springer.
- [J-4] A. Artale. Reasoning on temporal class diagrams: Undecidability results. *Annals on Mathematics and Artificial Intelligence (AMAI)*, 46:265–288, 2006. Springer.
- [J-5] A. Artale, C. Dixon, M. Fisher, and E. Franconi. Temporal representation and reasoning. *J. of Logic and Computation*, 14(1–4), 2004. Oxford University Press.
- [J-6] A. Artale and C. Lutz. A correspondence between temporal description logics. *J. of Applied Non-Classical Logics*, 14(1-2):209–233, 2004. Lavoisier.
- [J-7] A. Artale and E. Franconi. A survey of temporal extensions of description logics. *Annals on Mathematics and Artificial Intelligence (AMAI)*, 30(1-4):171–210, 2000. Kluwer Academic Publishers.
- [J-8] A. Artale and E. Franconi. Representing a robotic domain using temporal description logics. *Artificial Intelligence in Engineering, Design, Analysis and Manufacturing*, 13(9):105–117, 1999. Cambridge University Press.
- [J-9] A. Artale and E. Franconi. A temporal description logic for reasoning about actions and plans. *Journal of Artificial Intelligence Research (JAIR)*, 9:463–506, 1998. Morgan Kaufmann.
- [J-10] A. Artale, F. Cesarini, and G. Soda. Describing database objects in a concept language environment. *IEEE Transaction on Knowledge and Data Engineering*, 8(2), 1996. IEEE Computer Society.
- [J-11] A. Artale, E. Franconi, N. Guarino, and L. Pazzi. Part-whole relations in object-centered systems: An overview. *Data & Knowledge Engineering*, 20(3):347–383, 1996. Elsevier Science.

### International Conferences

- [IC-12] A. Artale, D. Calvanese, and A. Ibáñez-García. Checking full satisfiability of conceptual models. In *Proc. of the 23rd Int. Workshop on Description Logics (DL-10)*, 2010.

- [IC-13] A. Artale, D. Calvanese, and A. Ibáñez-García. Full satisfiability of uml class diagrams. In *Proc. of the 29<sup>th</sup> International Conference on Conceptual Modeling (ER-10)*, 2010.
- [IC-14] A. Artale, B. Crispo, F. Giunchiglia, F. Turkmen, and R. Zhang. Reasoning about relation based access control. In *Proc. of the 4<sup>th</sup> International Conference on Network and System Security (NSS-10)*, 2010.
- [IC-15] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Complexity of reasoning over temporal data models. In *Proc. of the 29<sup>th</sup> International Conference on Conceptual Modeling (ER-10)*, 2010.
- [IC-16] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Past and future of dl-lite. In *Proc. of the 24<sup>th</sup> AAAI Conf. on Artificial Intelligence (AAAI-10)*, 2010.
- [IC-17] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Temporal conceptual modelling with DL-Lite. In *Proc. of the 23rd Int. Workshop on Description Logics (DL-10)*, 2010.
- [IC-18] E. Botoeva, A. Artale, and D. Calvanese. Query rewriting in DL-Lite<sub>horn</sub><sup>(RN)</sup>. In *Proc. of the 23rd Int. Workshop on Description Logics (DL-10)*, 2010.
- [IC-19] C. M. Keet and A. Artale. A basic characterization of relation migration. In P. H. R. Meersman et al., editors, *OTM Workshops, 6th International Workshop on Fact-Oriented Modeling (ORM'10)*, LNCS. Springer, 2010. October 27-29, 2010, Hersonissou, Crete, Greece.
- [IC-20] A. Artale, D. Calvanese, and A. Ibáñez-García. Full satisfiability of UML class diagrams (Extended Abstract). In *Proc. of the Fourth International Workshop on Logic in Databases (LID'09)*, 2009.
- [IC-21] A. Artale, D. Calvanese, R. Kontchakov, and M. Zakharyashev. Adding weight to DL-Lite. In *Proc. of the 22nd Int. Workshop on Description Logics (DL-09)*, Oxford, U.K., July 2009.
- [IC-22] A. Artale, D. Calvanese, R. Kontchakov, and M. Zakharyashev. DL-Lite without the unique name assumption. In *Proc. of the 22nd Int. Workshop on Description Logics (DL-09)*, Oxford, U.K., July 2009.
- [IC-23] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. DL-Lite with temporalised concepts, rigid axioms and roles. In *Proc. of the 7th Int. Symposium on Frontiers of Combining Systems (FroCoS'09)*, Trento, Italy, September 2009. Lecture Notes in CS, Springer.
- [IC-24] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Extending DL-Lite sometime in the future. In *Proc. of the 22nd Int. Workshop on Description Logics (DL-09)*, Oxford, U.K., July 2009.
- [IC-25] R. Zhang, A. Artale, F. Giunchiglia, and B. Crispo. Using description logics in relation based access control. In *Proc. of the 22nd Int. Workshop on Description Logics (DL-09)*, Oxford, U.K., July 2009.
- [IC-26] A. Artale, N. Guarino, and M. Keet. Formalising temporal constraints on part-whole relations. In G. Brewka and J. Lang, editors, *Proc. of the 11<sup>th</sup> International Conference on Principles of Knowledge Representation and Reasoning – KR08*, Sydney, Australia, September 2008. AAAI Press.
- [IC-27] A. Artale and M. Keet. Essential and mandatory part-whole relations in conceptual data models. In *Proc. of the 21st Int. Workshop on Description Logics (DL-08)*, Dresden, Germany, May 2008.
- [IC-28] A. Artale and D. Toman. Decidable reasoning over timestamped conceptual models. In *Proc. of the 21st Int. Workshop on Description Logics (DL-08)*, Dresden, Germany, May 2008.
- [IC-29] A. Artale, D. Calvanese, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Complexity of reasoning over entity relationship models. In *Proc. of the 20th Int. Workshop on Description Logics (DL-07)*, June 2007.
- [IC-30] A. Artale, D. Calvanese, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Reasoning over extended ER models. In *Proc. of the 26<sup>th</sup> International Conference on Conceptual Modeling (ER'07)*, volume 4801, Auckland, New Zealand, Nov. 2007. Lecture Notes in CS, Springer.
- [IC-31] A. Artale, D. Calvanese, R. Kontchakov, and M. Zakharyashev. DL-Lite in the light of first-order logic. In *Proc. of the 22nd Nat. Conf. on Artificial Intelligence (AAAI-07)*, 2007.
- [IC-32] A. Artale, R. Kontchakov, C. Lutz, F. Wolter, and M. Zakharyashev. Temporalising tractable description logics. In *14th International Symposium on Temporal Representation and Reasoning (TIME07)*. IEEE Computer Society, 2007.
- [IC-33] A. Artale, C. Lutz, and D. Toman. A description logic of change. In *Int. Joint Conference on Artificial Intelligence (IJCAI-07)*, Hyderabad, India, Jan 2007.

- [IC-34] A. Artale, C. Lutz, and D. Toman. A description logic of change. In *Workshop Notes of the Int. Workshop on Description Logics (DL-06)*, The Lake District, UK, May 2006.
- [IC-35] A. Artale, C. Parent, and S. Spaccapietra. Modeling the evolution of objects in temporal information systems. In *4th Int. Symposium on Foundations of Information and Knowledge Systems (FoIKS-06)*, LNCS 3861, pages 22–42. Springer-Verlag, 2006.
- [IC-36] A. Artale. Reasoning on temporal conceptual schemas with dynamic constraints. In *11th International Symposium on Temporal Representation and Reasoning (TIME04)*. IEEE Computer Society, 2004. Also in Proc. of the 2004 International Workshop on Description Logics (DL-04).
- [IC-37] A. Artale, E. Franconi, F. Wolter, and M. Zakharyashev. A temporal description logic for reasoning over conceptual schemas and queries. In *Proc. of the 8th European Conference on Logics in Artificial Intelligence (JELIA-02)*, volume 2424 of *LNAI*, pages 98–110, Cosenza, Italy, September 2002. Springer-Verlag. ISBN 3-540-44190-5.
- [IC-38] A. Artale, E. Franconi, M. Mosurovic, F. Wolter, and M. Zakharyashev. The DLRUS temporal description logic. In *Workshop Notes of the Int. Workshop on Description Logics, (DL-01)*, Stanford University, CA, August 2001.
- [IC-39] A. Artale and E. Franconi. Introducing temporal description logics. In *Sixth International Workshop on Temporal Representation and Reasoning TIME'99*. IEEE Computer Society, May 1999.
- [IC-40] A. Artale and E. Franconi. Reasoning with enhanced temporal entity-relationship models. In *Proc. of the International Workshop on Spatio-Temporal Data Models and Languages*, pages 482–486. IEEE Computer Society Press, Aug. 1999. Also in Proc. of the 6<sup>th</sup> International Workshop on Knowledge Representation meets Databases (KRDB'99), and in Proc. of the 1999 International Workshop on Description Logics (DL-99).
- [IC-41] A. Artale and E. Franconi. Temporal ER modelling with description logics. In *Proc. of the 18th International Conference on Conceptual Modeling (ER'99)*, pages 81–95, Paris, France, Nov. 1999. Springer-Verlag.
- [IC-42] A. Artale and C. Lutz. A correspondence between temporal description logics. In *Workshop Notes of the Int. Workshop on Description Logics, (DL-99)*, pages 145–149, Linköping, Sweden, July 1999.
- [IC-43] A. Artale, A. Goy, B. Magnini, E. Pianta, and C. Strapparava. Issues in the development cycle of the italian version of wordnet. In *Proc. of the 1st International Conference on Language Resources and Evaluation*, Granada, Spain, May 1998.
- [IC-44] A. Artale, E. Franconi, and N. Guarino. Open problems with part-whole relations. In *Workshop Notes of the Int. Workshop on Description Logics (DL-96)*, Boston, MA, Nov. 1996.
- [IC-45] A. Artale and E. Franconi. Hierarchical plans in a description logic of time and action. In A. Borgida, M. Lenzerini, D. Nardi, and B. Nebel, editors, *Workshop Notes of the Int. Workshop on Description Logics, (DL-95)*, pages 1–5, Roma, Italy, June 1995. Tech. Rep. 07.95. Also in the Workshop Notes of the IJCAI-95 Workshop on “The Next Generation of Plan Recognition Systems: Challenges for and Insight from Related Areas of AI”, Montréal, 1995.
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- [NAT-62] A. Artale, D. Calvanese, R. Kontchakov, and M. Zakharyashev. Query answering in dl-lite dialects. In *Proc. of the 15th Italian Symposium on Advanced Database Systems (SEBD-07)*, Torre Canne (BR), Italy, 2007.
- [NAT-63] A. Artale, C. Parent, and S. Spaccapietra. Modeling the evolution of objects in temporal information systems. In *Proc. of “Convegno su Sistemi Evoluti per Basi di Dati” (SEBD-05)*, Bressanone (BZ), Italy, 2005.

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- [NAT-65] A. Artale, B. Magnini, and C. Strapparava. Wordnet for italian and its use for lexical discrimination. In *Proc. of the 5<sup>th</sup> Congress of the Italian Association for Artificial Intelligence (AI\*IA-97)*, volume 1321, pages 346–356, Roma - Italy, 1997. Lecture Notes in AI, Springer-Verlag.
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- [NAT-68] A. Artale, F. Cesarini, and G. Soda. Introducing knowledge representation techniques in database models. In E. Ardizzone, S. Gaglio, and F. Sorbello, editors, *Proc. of the 2<sup>nd</sup> Congress of the Italian Association for Artificial Intelligence*, volume 345, pages 375–384, Palermo-Italy, October 1991. Lecture Notes in AI, Springer-Verlag.

## Others

- [OTH-69] A. Artale. *Rappresentazione di Tempo ed Azioni e Ragionamento Tassonomico per Object-Oriented Databases nel Contesto dei Linguaggi Terminologici*. PhD thesis, University of Florence, Italy, February 1994. (in italian).
- [OTH-70] A. Artale. *Modelli semantici per basi di dati e ragionamento tassonomico*. Master's thesis, University of Florence, Italy, July 1990. (in italian).
- [OTH-71] A. Artale, F. Cesarini, and G. Soda. Computation of ISA relationships in LOGIDATA+. Technical Report 5-47, DSI, University of Florence, Italy, 1990.

## Administrative Activity

- 2006-.** Member of the Academic Board for the Bachelor Degree in Computer Science (Consiglio del Corso di Laurea in Informatica Applicata).
- 2005-.** Representative of the researchers of the Faculty of Computer Science and member of the Faculty Council, University of Bolzano.
- 2005-.** Coordinator (delagato del Rettore di Bolzano) for the BIT tri-lateral agreements between the Computer Science departments of the Universities of Bolzano, Innsbruck and Trento.
- 2001-02.** Joint programme tutor for the joint courses run by the Dept. of Computation, UMIST. The joint courses involved are: Computer and Geography, Management and IT, Mathematics with SE, Biological Computing Science. During the first semester I was involved in the students registration and in the boards of studies.  
*Number of Tutees: 300.*
- 1999-2000** European Officer, Dept. of Computation, UMIST.