

# Curriculum Vitæ

**Dr. Alessandro Artale**

March 17, 2017

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

## Current Position

Associate Professor (Professore Associato)  
KRDB Research Centre – Faculty of Computer Science  
Free University of Bozen-Bolzano  
P.za Domenicani, 3  
39100 – Bolzano, Italy.  
Tel. +39(0471)016-150  
Fax. +39(0471)016-009  
Email: artale@inf.unibz.it  
<http://www.inf.unibz.it/~artale.htm>  
**Date of appointment:** 1/09/2003

## Research Activity Summary

- **h-index:** 23 (Google Scholar)
- **Total funds as Principal Investigator:** circa 335,000 €
- **Number of publications:** 86
  - **International Journals:** 13
  - **International Conferences:** 57
  - **Book Chapters:** 7
  - **National Publications:** 9

## Previous Appointments

**January 2015-Now.** Associate Professor at the Faculty of Computer Science, Free University of Bozen-Bolzano, Italy.

**Aug-Sept-2008.** Visiting Researcher at NICTA, Kensington Research Laboratory, Sydney, Australia, 20 August-20 September, 2008.

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

- September 2003-December 2014.** Assistant Professor with tenure (Ricercatore confermato) at the Faculty of Computer Science, Free University of Bozen-Bolzano, Italy.
- 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.

## Teaching Activity

### Awards

- 2014.** Best Teacher Award, Faculty of Computer Science, Free University of Bozen-Bolzano, IT.

### Courses Taught: Undergraduate

- 2015-Now.** Discrete Mathematics and Logic.  
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (2<sup>nd</sup> year).
- 2012-Now.** Formal Languages and Compilers.  
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3<sup>rd</sup> year).
- 2014-2015.** Data Structure and Algorithms.  
Teaching Assistant Free University of Bozen-Bolzano, IT (1<sup>st</sup> year).
- 2003-10.** Principles of Compilers.  
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (2<sup>nd</sup> year).
- 2003-04.** Databases 2.  
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3<sup>rd</sup> year).
- 2000-03.** Database Technology.  
Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK (2<sup>nd</sup> year). *Number of students:* 240.
- 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.
- 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. Alfonso Gerevini.

**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).

**Courses Taught: Master in CS (Laurea Specialistica)**

**2004-10. Formal Methods.**

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

**2002-03. Databases.**

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

**Invited Courses (MSc and PhD level)**

**2015. Reasoning over Ontologies.**

Department of Computer Science and Engineering, National University del SUR, Bahia Blanca, Argentina, July 2015.

**2011. Formal Methods.**

Masters in Artificial Intelligence Spring School (MAIS11). School of Computer Science, University of Kwazulu-Natal, Durban, SA, September 2011.

<http://krr.meraka.org.za/~mais2011/MAIS2011/Welcome.html>

**2011. DL-Lite for Conceptual Modelling.**

EPCL (European PhD on Computational Logic school) Basic Training Camp 2011, TU Dresden, Germany, December 2011.

**Student Supervision**

**PhD Students**

**Jan-2013.** Alisa Kovtunova, Free University of Bozen-Bolzano, IT.

**Jan-2010.** Dr. Stefano Borgo, Free University of Bozen-Bolzano, IT (PhD in 2014).

**Jan-2010.** Dr. Yazmin Angelica-Ibanez, Free University of Bozen-Bolzano, IT (PhD in 2014).

**Jan-2009.** Maria Amalfi, Free University of Bozen-Bolzano, IT.

**Jan-2006.** Dr. Vladislav Ryzhikov, Free University of Bozen-Bolzano, IT (PhD in 2010).

**Jan-2005.** Dr. Marijke Keet, Co-Supervision, Free University of Bozen-Bolzano, IT (PhD in 2008).

**July-2001.** Dr. Bassel Ahmad, University of Manchester, UK (MPhil in 2002).

**Master (MSc) and Undergraduate (BSc) Students**

**MSc** More than 20 students supervised at both Free University of Bozen-Bolzano, IT, and UMIST, University of Manchester, UK.

**BSc** More than 30 students supervised at both Free University of Bozen-Bolzano, IT, and UMIST, University of Manchester, UK.

## Member of PhD Exam Commissions

**Nov-2004.** PhD Student: Dr. Jeff Pann - Supervisor: Prof. Ian Horrocks - Institution: University of Manchester, UK.

**2005-Dec.** PhD Student: Dr. Anastasiya Sotnykova - Supervisor: Prof. Stefano Spaccapietra - Institution: EPFL Losanna, 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.

## 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.

### **Scientific collaborations**

The research has been conducted not only in collaboration with my colleagues at FUB but involved various international collaborations as mentioned in the following listing:

- Michael Zakharyashev, Roman Kontchakov. Department of Computer Science and Information Systems Birkbeck, University of London, U.K.
- Frank Wolter. Department of Computer Science, University of Liverpool, U.K.
- Ernest Teniente, Anna Queralt. Department of Service and Information System Engineering at the Universitat Politècnica de Catalunya, BarcelonaTech, Spain.
- David Toman. D.R.Cheriton School of Computer Science, Faculty of Mathematics, University of Waterloo, Canada.
- Carsten Lutz. Department of Computer Science, University of Bremen, Germany.
- Stefano Spaccapietra. EPFL, Lausanne Switzerland.
- Maria Keet. Department of Computer Science University of Cape Town, SA.
- Angelo Montanari. Department of Mathematics and Computer Science University of Udine, Italy.

### **Research Visits**

**July-2015** Visit to the *Department of Computer Science and Engineering, National University del SUR*, Bahia Blanca, Argentina. Collaboration with Prof. Pablo Fillotrani on languages for the Semantic Web.

**Apr-May-2012** Visit to the *Department of Computer Science and Information Systems Birkbeck, University of London*, London, UK. Collaboration with Prof. Michael Zakharyashev and Dr. Roman Kontchakov on Temporal extension of Description Logics.

**Jan-March-2012** Visit to the *Department of Service and Information System Engineering at the Universitat Politècnica de Catalunya*,, Barcelona, Spain. Collaboration with Prof. Ernest Teniente and Dr. Anna Queralt on Reasoning tools for conceptual data models.

**Sept-Oct-2011** Visit to the *School of Computer Science, University of Kwazulu-Natal*, Durban, SA. Collaboration with Dr. Maria Keet on part-whole relations and their temporal characterization.

**Oct-Nov-2011** Visit to the *Meraka Institute at the Council for Scientific and Industrial Research (CSIR)*, Pretoria, SA. Collaboration with Dr. Thomas Meyer on ontology-based data access and its extension to temporal databases.

**Aug-Sept-2008** Visit at *National ICT Australia (NICTA)*, Kensington Research Laboratory, Sydney, Australia. Collaboration with Dr. Toby Walsh research leader of the AI group at NICTA-Sydney.

**February-2005** Visit at *Ecole Polytechnique Federale de Lausanne (EPFL)*, Switzerland. Collaboration with Prof. Stefano Spaccapietra head of the Database Laboratory (LBD), work on temporal conceptual data models.

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

- 2016-17.** Principal Investigator of the Univ. of Bozen funded project “*Ontology Mediated Temporal Queries (OMTeQ)*”. Funding: 50,000 €.
- 2014-15.** Principal Investigator of the University of Bozen-Bolzano funded project “*Formalizing Design and Access to Semantic Data Models (DASMO)*”. Funding: 10,000 €.
- 2012-15.** Principal Investigator of the Univ. of Bozen funded project “*Reasoning and Queries Over Temporal Ontologies (ReQuoTo)*”. Funding: 49,000 €.
- 2008-12.** 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 British Pounds (73,500 €).

## **Funded Research Projects – Member**

- 2010-13.** Member of the ACSI Project (Artifact-Centric Service Interoperation), EU STREP Project, funded within the European Union 7th Framework Programme. Contract number: 257593. Total cost: 4.699M EUR.
- 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

- July 2017.** Program Co-Chair of the 30<sup>th</sup> *International Workshop on Description Logics* (DL-17), Montpellier, France, July 18-21, 2017.
- 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 2017.** Member of the Program Committee of the 36<sup>th</sup> “*International Conference on Conceptual Modeling*” (ER-2017), Valencia, Spain, Nov. 6th-9th, 2017.
- September 2017.** Member of the Program Committee of the 11<sup>th</sup> “*International Symposium on Frontiers of Combining Systems*” (FroCoS-17), Brasilia, Brasil, 27-29 September, 2017.
- July 2017.** Member of the Program Committee of the 31<sup>st</sup> “*AAAI Conference on Artificial Intelligence*” (AAAI-17), San Francisco, California USA, 4-9 February, 2017.
- April 2016.** Member of the Program Committee of the 15<sup>th</sup> “*International Conference on Principles of Knowledge Representation and Reasoning*” (KR-16), Cape Town, SA, April 26-29, 2016.
- April 2016.** Member of the Program Committee of the 29<sup>th</sup> “*International Workshop on Description Logics*” (DL-16), Cape Town, SA, April 22-25, 2016.
- October 2016.** Member of the Program Committee of the 23<sup>rd</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2016), Kongens Lyngby, Denmark, October 17-19, 2016.
- September 2015.** Member of the Program Committee of the 22<sup>nd</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2015), Kassel, Germany, 23-25 September, 2015.
- September 2015.** Member of the Program Committee of the 10<sup>th</sup> “*International Symposium on Frontiers of Combining Systems*” (FroCoS-15), Wroclaw, Poland, 19-24 September, 2015.
- July 2015.** Member of the Program Committee of the 24<sup>th</sup> “*International Joint Conference on Artificial Intelligence*” (IJCAI-15), Buenos Aires, Argentina, 25-31 July, 2015.
- June 2015.** Member of the Program Committee of the 28<sup>th</sup> “*International Workshop on Description Logics*” (DL-15), Athens, Greece, June 7-10, 2015.
- September 2014.** Member of the Program Committee of the 21<sup>st</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2014), Verona, Italy, 8-10 September, 2014.
- August 2014.** Member of the Program Committee of the 21<sup>st</sup> “*European Conference on Artificial Intelligence*” (ECAI-14), Prague, Czeck Republic, 18-22 August, 2014.
- July 2014.** Member of the Program Committee of the 27<sup>th</sup> “*International Workshop on Description Logics*” (DL-14), Vienna, Austria, July 17-20, 2014.

**September 2013.** Member of the Program Committee of the 20<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2013), Pensacola, FL (USA), 26-28 September, 2013.

**September 2013.** Member of the Program Committee of the 9<sup>th</sup> “*International Symposium on Frontiers of Combining Systems*” (FroCoS-13), Nancy, France, September 18-20, 2013.

**August 2013.** Member of the Program Committee of the 23<sup>rd</sup> “*International Joint Conference on Artificial Intelligence*” (IJCAI-13), Beijing, China, August 3-9, 2013.

**July 2013.** Member of the Program Committee of the 26<sup>th</sup> “*International Workshop on Description Logics*” (DL-13), Ulm, Germany, July 23-26, 2013.

**September 2012.** Member of the Program Committee of the 19<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2012), Leicester, UK, 12-14 September, 2012.

**August 2012.** Member of the Program Committee of the 20<sup>th</sup> “*European Conference on Artificial Intelligence*” (ECAI-12), Montpellier, France, 27-31 August 2012.

**July 2012.** Member of the Program Committee of the 26<sup>th</sup> “*AAAI Conference on Artificial Intelligence*” (AAAI-12), Toronto, Canada, 22-26 July, 2012.

**June 2012.** Member of the Program Committee of the 13<sup>th</sup> “*International Conference on Principles of Knowledge Representation and Reasoning*” (KR-12), Rome, Italy, June 10-14, 2012.

**June 2012.** Member of the Program Committee of the 25<sup>th</sup> “*International Workshop on Description Logics*” (DL-12), Rome, Italy, 7-10 June, 2012.

**October 2011.** Member of the Program Committee of the “*Joint Workshop on Knowledge Evolution and Ontology Dynamics*” (EvoDyn-11), Bonn, Germany, October, 2011.

**October 2011.** Member of the Program Committee of the “*International Workshop on Ontologies and Conceptual Modeling*” (Onto.Com-11), Barcelona, Spain, October 31 - November 3, 2011.

**September 2011.** Member of the Program Committee of the 18<sup>th</sup> “*International Symposium on Temporal Representation and Reasoning*” (TIME-2011), Lübeck, Germany, 12-14 September, 2011.

**July 2011.** Member of the Program Committee of the 24<sup>th</sup> “*International Workshop on Description Logics*” (DL11), Barcelona, Catalonia (Spain), 13-16 July, 2011.

**July 2011.** Member of the Program Committee of the 22<sup>nd</sup> “*International Joint Conference on Artificial Intelligence*” (IJCAI-11), Barcelona, Catalonia (Spain), July 16-22, 2011.

**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 Program 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 Program Committee of the 24<sup>th</sup> “*AAAI Conference on Artificial Intelligence*” (AAAI-10), Atlanta, Georgia, USA, July 2010.

**July 2010** Member of the Program 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 Program Committee of the Conference on “*Advances in Modal Logic 2008*” (AIML08), Nancy, France, 9-12 September 2008.



- September 2008.** Member of the Program Committee of the European Conference on “*Logics in Artificial Intelligence*” (JELIA08), Dresden, Germany, 28-1 September-October 2008.
- July 2008** Member of the Program Committee of the 23-th “*Convegno Italiano di Logica Computazionale*” (CILC08), Perugia, IT, 10-12 July 2008.
- June 2008.** Member of the Program 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 Program 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 Program 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 Program 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 Program 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 Program Committee of the “*International Workshop on Description Logics*” (DL-05), Edinburgh, UK, July 2005.
- November 2004.** Member of the Program 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 Talks & Research Seminars

- October 2017.** Invited Talk, *Temporal Ontology-Based Data Access*, at the 24<sup>th</sup> *International Symposium on Temporal Representation and Reasoning* (TIME-2017), Mons, Belgium, 16-18 October 2017.
- June 2016.** Course of 6 hours, *Reasoning over Ontologies and Conceptual Models*, given at the 3<sup>rd</sup> *Interdisciplinary School on Applied Ontology* (ISAO-16), Bozen-Bolzano, Italy, June 27 July 1, 2016.
- April 2014** Invited Talk, *Temporal Description Logic for Ontology-Based Data Access*, at the Annual European PhD Program in Computational Logic (EPCL) Workshop, TU Dresden, Germany, 14-17 April 2014.
- May 2013.** Invited talk, *Reasoning Techniques for Conceptual Models*, Dagstuhl Seminar No. 13211 on Automatic Reasoning on Conceptual Schemas, Dagstuhl, Germany, 2013.
- May 2012.** Invited seminar, *Reasoning and Queries over Conceptual Data Models - The DL-Lite Approach*, Computer Science Department, University of Oxford, UK, May 22, 2012.
- December 2011** Invited seminar, *DL-Lite for Conceptual Modelling*, EPCL (European PhD Program in Computational Logic) Basic Training Camp 2011, TU Dresden, Germany, 2011.
- October 2011.** Invited speaker, *Tailoring Temporal Description Logics for Reasoning over Temporal Conceptual Models*, given at the 8<sup>th</sup> *International Symposium on Frontiers of Combining Systems* (FroCoS'11), Saarbrücken, Germany, October 5-7, 2011.
- August 2000.** Invited speaker, *Temporal Description Logics and their Applications*, given at the *International Workshop on Many-dimensional Logical Systems*, in conjunction with (ESSLLI-2000), Birmingham, UK, 2000.
- July 1995.** Invited seminar, *Knowledge Representation and Reasoning Using Description Logics*, University of Florence, Italy, 1995.
- January 1993.** Invited seminar, *A Unified Framework for Representing Time, Actions and Plans*, “Istituto di Ricerca Scientifica e Tecnologica”, IRST, Trento, Italy, 1993.
- June 1992.** Invited seminar, *A Description Logic for Time and Actions*, Dept. of Artificial Intelligence, AT&T Bell Laboratories, N.J., USA, 1992.

### 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.** Artificial Intelligence Journal (AIJ), Elsevier; Journal of Artificial Intelligence Research (JAIR), AAAI Press; 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; IEEE Transaction on Software Engineering; Journal of Automated Reasoning, Springer; IEEE Transaction on Knowledge and Data Engineering; AI\*IA notizie, Journal of the Italian Association for Artificial Intelligence.

## Project Reviewer

- Czech Science Foundation: Reviewer for 2013.
- Science Foundation Ireland: Reviewer for the project DERI Institute, 2008.
- European Commission: Independent Expert for the 7th Research Programme (FP7), 2007.
- European Commission: Reviewer for the EU project TOWL, 6th Research Programme (FP6), 2006-08.
- 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, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. A cookbook for temporal conceptual data modelling with description logics. *ACM Transaction on Computational Logic (TOCL)*, 15(3), 2014. DOI: 10.1145/2629565, ISSN: 1529-3785.
- [J-2] A. Artale, D. Calvanese, A. Queralt, and E. Teniente. OCL-Lite: Finite reasoning on UML/OCL conceptual schemas. *Data & Knowledge Engineering*, 73:1–22, 2012. DOI: 10.1016/j.datak.2011.09.004; Citation Index: 27. Elsevier.
- [J-3] 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. DOI: 10.1613/jair.2820; Citation Index: 253. AAAI Press.
- [J-4] M. Keet and A. Artale. Representing and reasoning over a taxonomy of part-whole relations. *Applied Ontology*, 3(1-2):91–110, 2008. ISSN: 1570-5838; Citation Index: 89. IOS Press.
- [J-5] A. Artale, C. Parent, and S. Spaccapietra. Evolving objects in temporal information systems. *Annals on Mathematics and Artificial Intelligence (AMAI)*, 50(1-2):5–38, 2007. ISSN: 1012-2443; Citation Index: 32. Springer.
- [J-6] A. Artale. Reasoning on temporal class diagrams: Undecidability results. *Annals on Mathematics and Artificial Intelligence (AMAI)*, 46:265–288, 2006. ISSN: 1012-2443, Springer.
- [J-7] A. Artale, C. Dixon, M. Fisher, and E. Franconi. Temporal representation and reasoning. *J. of Logic and Computation*, 14(1–4), 2004. ISSN: 0955-792X.
- [J-8] A. Artale and C. Lutz. A correspondence between temporal description logics. *J. of Applied Non-Classical Logics*, 14(1-2):209–233, 2004. ISSN: 1166-3081, Lavoisier.
- [J-9] 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-10] A. Artale and E. Franconi. Representing a robotic domain using temporal description logics. *Artificial Intelligence for Engineering Design Analysis and Manufacturing*, 13(9):105–117, 1999. Cambridge University Press.
- [J-11] 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-12] 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-13] 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-14] A. Artale and E. Franconi. Extending DLR with labelled tuples, projections, functional dependencies and objectification. In *Proc. of the 29th Int. Workshop on Description Logics (DL-16)*, Cape Town, SA, April 2016.
- [IC-15] A. Artale, R. Kontchakov, A. Kovtunova, F. Wolter, and M. Zakharyashev. First-order rewritability of temporal ontology-mediated queries. In *Proc. of the 24th Int. Joint Conference on Artificial Intelligence (IJCAI-15)*, Buenos Aires, Argentina, 25-31 July, 2015. AAAI Press.
- [IC-16] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Interval temporal description logics. In *Proceedings of the 28th International Workshop on Description Logics, Athens, Greece, June 7-10, 2015*.
- [IC-17] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Tractable interval temporal propositional and description logics. In *Proc. of the 29<sup>th</sup> AAAI Conf. on Artificial Intelligence (AAAI-15)*, pages 1417–1423, Austin, Texas, January 25-31, 2015. AAAI Press. ISSN: 0738-4602.
- [IC-18] A. Artale, D. Bresolin, A. Montanari, G. Sciavicco, and V. Ryzhikov. *DL-Lite* and interval temporal logics: a marriage proposal. In *Proc. of the 21st European Conf. on Artificial Intelligence (ECAI 2014)*. IOS Press, 2014. ISBN: 978-1-61499-418-3.
- [IC-19] A. Artale, R. Kontchakov, A. Kovtunova, V. Ryzhikov, F. Wolter, and M. Zakharyashev. Temporal OBDA with LTL and DL-Lite. In *Proc. of the 27th Int. Workshop on Description Logics (DL-14)*, pages 21–32, 2014.
- [IC-20] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. The complexity of clausal fragments of LTL. In K. McMillan, A. Middeldorp, and A. Voronkov, editors, *Proc. of the 19<sup>th</sup> International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR)*, volume 8312 of *LNCS*, pages 35–52. Springer-Verlag, 2013. ISBN: 978-3-642-45220-8.
- [IC-21] A. Artale, R. Kontchakov, F. Wolter, and M. Zakharyashev. Temporal description logic for ontology-based data access. In *Proc. of the 23rd Int. Joint Conference on Artificial Intelligence (IJCAI-13)*, Beijing, China, 3-9 August, 2013. AAAI Press. ISBN: 978-1-57735-633-2; Citation Index: 13.
- [IC-22] A. Artale, R. Kontchakov, F. Wolter, and M. Zakharyashev. Temporalising OWL 2 QL. In *Proc. of the 26th Int. Workshop on Description Logics (DL-13)*, Ulm, Germany, July 23-26th, 2013.
- [IC-23] C. Masolo and A. Artale. Entity-from-relationship modelling. In *Proc. of the 13th International Conference on Advances in Artificial Intelligence (AI\*IA-13)*, volume 8249, Torino, Italy, December 2013. LNCS, Springer-Verlag. ISBN: 978-3-319-03523-9.
- [IC-24] A. Artale, R. Kontchakov, and V. Ryzhikov. *DL-Lite* with attributes and datatypes. In *Proc. of the 20th European Conf. on Artificial Intelligence (ECAI 2012)*. IOS Press, 2012. ISBN: 978-1-61499-097-0.
- [IC-25] A. Queralt, A. Artale, D. Calvanese, and E. Teniente. OCL-Lite: A decidable (yet expressive) fragment of OCL. In *Proc. of the 25<sup>th</sup> Int. Workshop on Description Logics (DL-12)*, Rome, Italy, 2012.
- [IC-26] M. Amalfi, A. Artale, A. Cali, and A. Provetti. Generating preview instances for the face validation of entity-relationship schemata: The acyclic case. In *Proc. of the 16th International Conference on Database Systems for Advanced Applications (DASFAA'11)*, volume 6588 of *Lecture Notes in Computer Science*, pages 225–234. Springer, 2011. ISBN: 978-3-642-20151-6.
- [IC-27] A. Artale, A. Ibáñez-García, R. Kontchakov, and V. Ryzhikov. DL-Lite with attributes and sub-roles (extended abstract). In *Proc. of the 24<sup>th</sup> Int. Workshop on Description Logics (DL-11)*, 2011.
- [IC-28] A. Artale, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Tailoring temporal description logics for reasoning over temporal conceptual models. In *Proc. of the 8th Int. Symposium on Frontiers of*

- Combining Systems (FroCoS'11)*, volume 6989 of *Lecture Notes in Computer Science*, pages 1–11, Saarbrücken, Germany, October 2011. Springer. ISBN: 978-3-642-24363-9.
- [IC-29] 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-30] 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)*, volume 6412 of *Lecture Notes in Computer Science*, pages 317–331. Springer, 2010. ISBN: 978-3-642-16372-2; Citation Index: 17.
- [IC-31] 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)*, pages 231–238. IEEE Computer Society, 2010. ISBN: 978-1-4244-8484-3.
- [IC-32] 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)*, volume 6412 of *Lecture Notes in Computer Science*, pages 174–187. Springer, 2010. ISBN: 978-3-642-16372-2; Citation Index: 10.
- [IC-33] 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)*. AAAI Press, 2010. ISBN: 978-1-57735-615-8.
- [IC-34] 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-35] 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-36] 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)*, volume 6428 of *LNCS*, pages 484–493. Springer, 2010. October 27-29, 2010, Hersonissou, Crete, Greece. ISBN: 978-3-642-16960-1.
- [IC-37] 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)*, pages 243–248, 2009. ISBN: 978-157735464-2.
- [IC-38] 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-39] 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-40] 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)*, volume 5749, pages 133–148, Trento, Italy, September 2009. Lecture Notes in CS, Springer. ISBN: 978-3-642-04221-8.
- [IC-41] 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-42] 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-43] 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*, pages 673–683, Sydney, Australia, September 2008. AAAI Press. ISBN: 978-1-57735-384-3; Citation Index: 12.
- [IC-44] 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-45] 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-46] A. Artale, D. Calvanese, R. Kontchakov, V. Ryzhikov, and M. Zakharyashev. Complexity of rea-

- soning over entity relationship models. In *Proc. of the 20th Int. Workshop on Description Logics (DL-07)*, Brixen-Bressanone (BZ), Italy, June 2007. Citation Index: 12.
- [IC-47] 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, pages 277–292, Auckland, New Zealand, Nov. 2007. Lecture Notes in CS, Springer. ISBN: 978-3-540-75562-3; Citation Index: 71.
- [IC-48] 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. ISBN: 978-1-57735-323-2; Citation Index: 56.
- [IC-49] 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)*, pages 11–22. IEEE Computer Society, 2007. ISBN: 0-7695-2836-8; Citation Index: 38.
- [IC-50] A. Artale, C. Lutz, and D. Toman. A description logic of change. In *Int. Joint Conference on Artificial Intelligence (IJCAI-07)*, pages 218–223, Hyderabad, India, Jan 2007. ISBN: 9781577352983; Citation Index: 33.
- [IC-51] 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-52] 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. ISBN: 3-540-31782-1.
- [IC-53] A. Artale. Reasoning on temporal conceptual schemas with dynamic constraints. In *11th International Symposium on Temporal Representation and Reasoning (TIME04)*. IEEE Computer Society, 2004. Citation Index: 10. Also in *Proc. of the 2004 International Workshop on Description Logics (DL-04)*. ISBN: 0-7695-2155-X.
- [IC-54] A. Artale, E. Franconi, F. Wolter, and M. Zakharyashev. A temporal description logic for reasoning over conceptual schemas and queries. In *Proc. of the 8<sup>th</sup> 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-55] 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-56] 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-57] 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-58] A. Artale and E. Franconi. Temporal ER modelling with description logics. In *Proc. of the 18<sup>th</sup> International Conference on Conceptual Modeling (ER'99)*, pages 81–95, Paris, France, Nov. 1999. Springer-Verlag.
- [IC-59] 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-60] 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 1<sup>st</sup> International Conference on Language Resources and Evaluation*, Granada, Spain, May 1998.
- [IC-61] 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-62] 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.

- [IC-63] A. Artale, C. Bettini, and E. Franconi. Homogeneous concepts in a temporal description logic. In F. Baader, M. Lenzerini, W. Nutt, and P. F. Patel-schneider, editors, *Workshop Notes of the Int. Workshop on Description Logics, (DL-94)*, pages 36–41, Bonn, Germany, May 1994. DFKI, Saarbrücken. Tech. Rep. DFKI-D-94-10.
- [IC-64] A. Artale, F. Cesarini, E. Grazzini, F. Pippolini, and G. Soda. Modelling composition in a terminological language environment. In N. Guarino, S. Pribbenow, and L. Vieu, editors, *Workshop Notes of the ECAI-94 Workshop on Parts and Wholes*, pages 93–101, Amsterdam, Aug. 1994.
- [IC-65] A. Artale and E. Franconi. A computational account for a description logic of time and action. In J. Doyle, E. Sandewall, and P. Torasso, editors, *Proc. of the 4<sup>th</sup> International Conference on Principles of Knowledge Representation and Reasoning – KR94*, pages 3–14, Bonn, Germany, May 1994. Morgan Kaufmann.
- [IC-66] A. Artale, F. Cesarini, and G. Soda. A correspondence theory for object database models and concept languages. In *Atelier d’ingénierie des connaissances et des données*, pages 1–20, Strasbourg, France, Jan. 1993.
- [IC-67] A. Artale, F. Cesarini, and G. Soda. A formal mapping from database objects to a concept language. In A. Napoli, editor, *Workshop Notes of the IJCAI Workshop on Object-Based Representation Systems*, pages 6–18, Chambéry, France, Aug. 1993.
- [IC-68] A. Artale and E. Franconi. A unified framework for representing time, actions and plans. In F. D. Anger, H. W. Guesgen, and J. van Benthem, editors, *Workshop Notes of the IJCAI-93 Workshop on Temporal and Spatial Reasoning*, pages 193–217, Chambéry, France, Aug. 1993. Also in the Workshop Notes of the IJCAI-93 Workshop on Object-Based Representation Systems; a shorter version appears in the Workshop Notes of the Italian 1993 Workshop on Automatic Planning, Roma Italy, September 1993.
- [IC-69] A. Artale. Building a taxonomy on object classes. In M. H. Hamza, editor, *Proc. of the 10<sup>th</sup> Int. Conf. on Applied Informatics*, pages 151–154, Innsbruck-Austria, Feb. 1992. Acta Press, Zurich.
- [IC-70] A. Artale, F. Cesarini, and G. Soda. Subsumption computation in an object-oriented data model. In H. Boley and M. M. Richter, editors, *Proc. of the Workshop on Processing Declarative Knowledge - PDK91*, volume 567, pages 124–140, Kaiserslautern, Germany, May 1991. Lecture Notes in AI, Springer-Verlag.

## Book Chapters

- [BC-71] A. Artale and E. Franconi. Foundations of temporal conceptual data models. In A. Borgida, V. Chaudhri, P. Giorgini, and E. Yu, editors, *Conceptual Modeling: Foundations and Applications*, volume LNCS5600 of *Lecture Notes in Computer Science*, pages 10–35. Springer, 2009. ISBN: 978-3-642-02462-7; Citation Index: 10.
- [BC-72] A. Artale and C. M. Keet. Innovations in information systems modeling: Methods and best practices. In T. A. Halpin, H. A. Proper, and J. Krogstie, editors, *Essential, mandatory, and shared parts in conceptual data models*, Advances in Database Research Series, pages 17–52. IGI Global, 2008. ISBN: 978-1-60566-278-7.
- [BC-73] A. Artale and E. Franconi. Temporal description logics. In M. Fisher, D. Gabbay, and L. Vila, editors, *Handbook of Temporal Reasoning in Artificial Intelligence*, pages 375–388. Elsevier, “Foundations of Artificial Intelligence” Series, 2005. ISBN: 978-0444514936; Citation Index: 90.
- [BC-74] A. Artale, E. Franconi, and F. Mandreoli. Description logics for modeling dynamic information. In J. Chomicki, R. van der Meyden, and G. Saake, editors, *Logics for Emerging Applications of Databases*, pages 239–275. Springer-Verlag, 2004. ISBN: 3-540-00705-9.
- [BC-75] A. Artale, F. Cesarini, and G. Soda. Introducing taxonomic reasoning in LOGIDATA+. In P. Atzeni, editor, *LOGIDATA+: Deductive Databases with Complex Objects*, volume 701, pages 85–104. Lecture Notes in Computer Science, Springer-Verlag, 1993.
- [BC-76] A. Artale, F. Cesarini, and G. Soda. Logitax: a classifier for LOGIDATA+. In P. Atzeni, editor,

LOGIDATA+: *Deductive Databases with Complex Objects*, volume 701, pages 254–255. Lecture Notes in Computer Science, Springer-Verlag, 1993.

- [BC-77] D. Beneventano, S. Bergamaschi, C. Sartori, A. Artale, F. Cesarini, and G. Soda. Taxonomic reasoning in LOGIDATA+. In P. Atzeni, editor, *LOGIDATA+: Deductive Databases with Complex Objects*, volume 701, pages 79–84. Lecture Notes in Computer Science, Springer-Verlag, 1993.

## National Publications

- [NAT-78] A. Artale and D. Toman. Decidable reasoning over timestamped conceptual models. In *Proc. of the 16th Italian Symposium on Advanced Database Systems (SEBD-08)*, pages 168–178, Palermo, Italy, June 2008.
- [NAT-79] 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)*, pages 250–257, Torre Canne (BR), Italy, 2007.
- [NAT-80] 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.
- [NAT-81] A. Artale and E. Franconi. Temporal ER modeling with description logics: A preliminary report. *Special Issue on Management of Temporal Information, Bulletin of the Italian Association for Artificial Intelligence, AI\*IA Notizie*, Anno XIV(1), March 2001.
- [NAT-82] A. Artale, E. Franconi, M. Mosurovic, F. Wolter, and M. Zakharyashev. Reasoning over conceptual schemas and queries in temporal databases. In *Proc. of the 9th Italian Symposium on Advanced Database Systems (SEBD-01)*, pages 201–214, 2001.
- [NAT-83] 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.
- [NAT-84] A. Artale and E. Franconi. Persistent properties in a description logic of time and action. In *Workshop Notes of Giornata di Lavoro su Ragionamento Temporale, IV Convegno dell’Associazione Italiana per l’Intelligenza Artificiale AI\*IA-94*, pages 9–12, Parma, Italy, September 1994.
- [NAT-85] A. Artale, F. Cesarini, and G. Soda. Instance recognition in an object database model. In *Proc. of “Convegno su Sistemi Evoluti per Basi di Dati” (SEBD-93)*, pages 167–181, Gizzeria (CZ), Italy, 1993.
- [NAT-86] 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-87] 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-88] A. Artale. *Modelli semantici per basi di dati e ragionamento tassonomico*. Master’s thesis, University of Florence, Italy, July 1990. (in italian).
- [OTH-89] 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

- 2016-.** Member of “Commissione Didattica Paritetica”, ANVUR guidelines for the Quality Assurance, Faculty of Computer Science, Free University of Bozen-Bolzano.



- 2015-.** Member of “Teacher Selection Commission”, Faculty of Computer Science, Free University of Bozen-Bolzano.
- 2015-.** Erasmus+ responsible for the BSc studies at the Faculty of Computer Science, Free University of Bozen-Bolzano.
- 2006-11 & 2014-.** Member of the Academic Board for the Bachelor Degree in Computer Science, Free University of Bozen-Bolzano.
- 2012-14.** Member of the Academic Board for the Master Degree in Computer Science, Free University of Bozen-Bolzano.
- 2005-.** Member of the PhD Committee in Computer Science, Free University of Bozen-Bolzano.
- 2005-.** Representative of the researchers of the Faculty of Computer Science and member of the Faculty Council, Free University of Bozen-Bolzano.
- 2005-2015.** 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.