Curriculum Vitæ

Prof. Alessandro Artale

October 2, 2019

Current Position

Associate Professor (Professore Associato)
KRDB Research Centre – Faculty of Computer Science
Free University of Bozen-Bolzano
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Date of appointment: 1/09/2003

Research Activity Summary

- **h-index:** 26 (Google Scholar)

- **Research Assessment Italian Agency for Research - VQR 2011-14:** 2 out of 2

- **Research Assessment Italian Agency for Research - VQR 2004-10:** 2.8 out of 3

- **Total funds as Principal Investigator:** circa 335,000 €

- **Number of publications:** 96

    - **International Journals:** 13
    - **International Conferences:** 64
    - **Book Chapters:** 9
    - **National Publications:** 10

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

2012-Now. Formal Languages and Compilers.
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3rd year).

2015-18. Discrete Mathematics and Logic.
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (2nd year).

2014-2015. Data Structure and Algorithms.
Teaching Assistant Free University of Bozen-Bolzano, IT (1st year).

2003-10. Principles of Compilers.
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (2nd year).

2003-04. Databases 2.
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT (3rd year).

2000-03. Database Technology.
Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK (2nd 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 (3rd year).

1999-2000. Database Theory.
Module leader (Responsabile Didattico), UMIST, Dept. of Computation, UK (2nd year). *Number of students*: 320.

1998-99. Artificial Intelligence.
University of Brescia, IT, Dept. of Engineering and Computer Science (5th year). Invitation to give two

guest lectures on "Structural and Propositional Description Logics". Module leader Prof. Alfono Gerevini.

1994-95. Compilers and Formal Languages.
Module leader (Responsabile Didattico), University of Siena (Italy), Dept. of Engineering and Computer Science (3rd year).

Courses Taught: Master in CS (Laurea Specialistica)

2018-Now. Algorithms for Data Processing.
Module leader (Responsabile Didattico), Free University of Bozen-Bolzano, IT.

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

2011. Formal Methods.
Course at the "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

Nov-2017. Dr. Andrea Mazzullo, Free University of Bozen-Bolzano, IT

Jan-2013. Dr. Alisa Kovtunova, Free University of Bozen-Bolzano, IT (PhD in 2017).

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 Zakharyaschev, 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 Zakharyaschev 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 Polytechinique 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

2019-Now Associate Editor for the Journal of Artificial Intelligence Research (JAIR), AI Access Foundation.

2017. Co-Editor of the proceedings of the 30th International Workshop on "*Description Logics*" DL'17, CEUR. Editors: A. Artale, B. Glimm and R. Kontchakov. July 2017.

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.

Invited Talks & Research Seminars

June 2019. Invited Talk, *Qerrying Temporal Data using Temporal Ontologies*, at the 6th *LIPADE workshop* (LIPADE-2019), University Paris Descartes, France, 17 June 2019.

November 2018. Invited Tutorial (2 hours), *Ontology-Mediated Query Answering over Temporal Ontologies*, given at the *HYBRIS Workshop, Hybrid Reasoning for Intelligent Systems*, Freiburg, 12-13 November, 2018.

October 2017. Invited Talk, *Temporal Ontology-Mediated Data Access*, at the 24th *International Symposium on Temporal Representation and Reasoning* (TIME-2017), Mons, Belgium, 16-18 October 2017.

June 2016. Invited Tutorial (6 hours), *Reasoning over Ontologies and Conceptual Models*, given at the 3rd *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 Talk, *Tailoring Temporal Description Logics for Reasoning over Temporal Conceptual Models*, given at the 8th *International Symposium on Frontiers of Combining Systems* (FroCoS'11), Saarbrücken, Germany, October 5-7, 2011.

August 2000. Invited Talk, *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.

Program Committee Activity – Chair

July 2017. Program Co-Chair of the 30th *International Workshop on Description Logics* (DL-17), Montpellier, France, July 18-21, 2017.

June 2008. General Chair of the 15th International Symposium on "*Temporal Representation and Reasoning*" (TIME-2008), Montreal, Canada, June 2008.

July 2002. Program Co-Chair of the 9th International Symposium on "*Temporal Representation and Reasoning*" (TIME'02), Manchester, July 4-6, 2002.

Program Committee Activity – 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.

Program Committee Activity – PC Member

February 2020. Member of the Program Committee of the 11th "*International Symposium on Foundations of Information and Knowledge Systems* " (FoIKS2020), Dortmund, Germany, February 17-21, 2020.

February 2020. Member of the Program Committee of the 34th "*AAAI Conference on Artificial Intelligence*" (AAAI-20), New York, USA, February 7-12, 2020.

August 2014. Senior Program Committee member of the 24th "*European Conference on Artificial Intelligence*" (ECAI-20), Santiago de Compostela, Spain, June 8-12, 2020.

October 2019. Member of the Program Committee of the 26th "*International Symposium on Temporal Representation and Reasoning*" (TIME-2019), Malaga, Spain, October 16-19, 2019.

September 2019. Member of the Program Committee of the 12th "*International Symposium on Frontiers of Combining Systems*" (FroCoS-19), Middlesex University, London, September 4-6, 2019.

August 2019. Member of the Program Committee of the 28th "*International Joint Conference on Artificial Intelligence*" (IJCAI-19), Macao, China, 10-16 August, 2019.

June 2019. Member of the Program Committee of the 32nd "*International Workshop on Description Logics*" (DL-19), Oslo, Norway, June 18-21, 2019.

October 2018. Member of the Program Committee of the 37th "*International Conference on Conceptual Modeling*" (ER-2018), Xi'an, China, Oct. 22nd-25th, 2018.

October 2018. Member of the Program Committee of the 31st "*International Workshop on Description Logics*" (DL-18), Tempe, AZ, USA, Oct. 26-29, 2018.

July 2018. Member of the Program Committee of the 27th "*International Joint Conference on Artificial Intelligence*" (IJCAI-ECAI-18), Stockholm, Sweden, July 13-19, 2018.

July 2018. Member of the Program Committee of the 9th "*International Joint Conference on Automated Reasoning*" (IJCAR-18), Oxford, UK, July 14-17, 2018.

February 2018. Member of the Program Committee of the 32nd "*AAAI Conference on Artificial Intelligence*" (AAAI-18), New Orleans, Louisiana, USA, 2nd7th February, 2018.

November 2017. Member of the Program Committee of the 36th "*International Conference on Conceptual Modeling*" (ER-2017), Valencia, Spain, Nov. 6th-9th, 2017.

September 2017. Member of the Program Committee of the 11th "*International Symposium on Frontiers of Combining Systems*" (FroCoS-17), Brasilia, Brasil, 27-29 September, 2017.

July 2017. Member of the Program Committee of the 31st "*AAAI Conference on Artificial Intelligence*" (AAAI-17), San Francisco, California USA, 4-9 February, 2017.

April 2016. Member of the Program Committee of the 15th "*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 29th "*International Workshop on Description Logics*" (DL-16), Cape Town, SA, April 22-25, 2016.

October 2016. Member of the Program Committee of the 23rd "*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 22nd "*International Symposium on Temporal Representation and Reasoning*" (TIME-2015), Kassel, Germany, 23-25 September, 2015.

September 2015. Member of the Program Committee of the 10th "*International Symposium on Frontiers of Combining Systems*" (FroCoS-15), Wroclaw, Poland, 19-24 September, 2015.

July 2015. Member of the Program Committee of the 24th "*International Joint Conference on Artificial Intelligence*" (IJCAI-15), Buenos Aires, Argentina, 25-31 July, 2015.

June 2015. Member of the Program Committee of the 28th "*International Workshop on Description Logics*" (DL-15), Athens, Greece, June 7-10, 2015.

September 2014. Member of the Program Committee of the 21st "*International Symposium on Temporal Representation and Reasoning*" (TIME-2014), Verona, Italy, 8-10 September, 2014.

August 2014. Member of the Program Committee of the 21st "*European Conference on Artificial Intelligence*" (ECAI-14), Prague, Czeck Republic, 18-22 August, 2014.

July 2014. Member of the Program Committee of the 27th "*International Workshop on Description Logics*" (DL-14), Vienna, Austria, July 17-20, 2014.

September 2013. Member of the Program Committee of the 20th "*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 9th "*International Symposium on Frontiers of Combining Systems*" (FroCoS-13), Nancy, France, September 18-20, 2013.

August 2013. Member of the Program Committee of the 23rd "*International Joint Conference on Artificial Intelligence*" (IJCAI-13), Beijing, China, August 3-9, 2013.

July 2013. Member of the Program Committee of the 26th "*International Workshop on Description Logics*" (DL-13), Ulm, Germany, July 23-26, 2013.

September 2012. Member of the Program Committee of the 19th "*International Symposium on Temporal Representation and Reasoning*" (TIME-2012), Leicester, UK, 12-14 September, 2012.

August 2012. Member of the Program Committee of the 20th "*European Conference on Artificial Intelligence*" (ECAI-12), Montpellier, France, 27-31 August 2012.

July 2012. Member of the Program Committee of the 26th "*AAAI Conference on Artificial Intelligence*" (AAAI-12), Toronto, Canada, 22-26 July, 2012.

June 2012. Member of the Program Committee of the 13th "*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 25th "*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 18th "*International Symposium on Temporal Representation and Reasoning*" (TIME-2011), Lübeck, Germany, 12-14 September, 2011.

July 2011. Member of the Program Committee of the 24th "*International Workshop on Description Logics*" (DL11), Barcelona, Catalonia (Spain), 13-16 July, 2011.

July 2011. Member of the Program Committee of the 22nd "*International Joint Conference on Artificial Intelligence*" (IJCAI-11), Barcelona, Catalonia (Spain), July 16-22, 2011.

November 2010. Member of the Program Committee of the 4th "*International Workshop on Ontology Dynamics*" (IWOD-2010), Shanghai, China, 8 November 2010.

September 2010. Member of the Program Committee of the 17th "*International Symposium on Temporal Representation and Reasoning*" (TIME-2010), Paris, France, 6-8 September 2010.

August 2010. Member of the Program Committee of the 19th "*European Conference on Artificial Intelligence*" (ECAI-10), Lisbon, Portugal, 16-20 August 2010.

July 2010. Member of the Program Committee of the 24th "*AAAI Conference on Artificial Intelligence*" (AAAI-10), Atlanta, Georgia, USA, July 2010.

July 2010 Member of the Program Committee of the 25th "*Convegno Italiano di Logica Computazionale*" (CILC10), Universitá della Calabria, IT, 7-9 July 2010.

May 2010. Member of the Program Committee of the 23rd "*International Workshop on Description Logics*" (DL10), Waterloo, Canada, 4-7 May 2010.

June 2009. Member of the Programme Committee of the 6th "*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 5th "*European Semantic Web Conference*" (ESWC-08), Tenerife, Spain, June 2008.

June 2008. Member of the programme committee of the 16th *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 14th "*International Symposium on Temporal Representation and Reasoning*" (TIME-2007), Alicante, Spain, June 2007.

June 2007. Member of the Programme Committee of the 4th "*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 4th "*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 13th *"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 $3rd$ *"International Workshop on Evolution and Change in Data Management"* (ECDM 2004), Shanghai, China, November 2004.

July 2004. Member of the Program Committee of the 11th *"International Symposium on Temporal Representation and Reasoning"* (TIME-2004), Tatihou, France, July 1-3, 2004.

July 2003. Member of the Program Committee of the 10th *"International Symposium on Temporal Representation and Reasoning"* and of the 4th *"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.

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

- Natural Sciences and Engineering Research Council of Canada (NSERC): Project Reviewer for 2019.

- 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: Reviwer 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.

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[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.

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[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.

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[IC-37] A. Artale, D. Calvanese, and A. Ibáñez-García. Full satisability of UML class diagrams. In *Proc. of the 29th 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.

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[IC-52] 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-53] A. Artale, D. Calvanese, R. Kontchakov, V. Ryzhikov, and M. Zakharyaschev. Complexity of reasoning over entity relationship models. In *Proc. of the 20th Int. Workshop on Description Logics (DL-07)*, Brixen-Bressanone (BZ), Italy, June 2007.

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Administrative Activity

2019-. Degree Course director for the "BSc in Computer Science", Faculty of Computer Science, Free University of Bozen-Bolzano.

2017-. Member of "PhD Selection Commission", Faculty of Computer Science, Free University of Bozen-Bolzano.

2015-19. 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 & 2014-17. 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.

2005-15. 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, UK. 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.
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1999-2000. European Officer, Dept. of Computation, UMIST, UK.