

University Academic Curriculum Vitae

Personal information

ALESSANDRO MOSCA
Place and date of birth: MILANO, 14/03/1975
Nationality: ITALIAN
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Education since leaving school

NOV 2005: PhD in Computer Science
Milano-Bicocca University (Italy)
▪ Dissertation title: *A Theoretical and Computational Inquiry into the Compounding Problem*
Tutor: Prof. Giancarlo Mauri
Co-tutor: Prof.ssa Stefania Bandini

AUG 2003: School attendance
[Kurt Gödel Society, at the Institut für Computersprachen - Technische Universität Wien and Institute for Algebra and Computational Mathematics - Vienna University of Technology](#)
▪ *ESSLLI '03: 15th European Summer School in Logic, Language and Information*

MAY 2003: School attendance
Milano-Bicocca University, Università Politecnica di Milano (Italy)
▪ *Soft Computing 2003*
School Director: Prof. Andrea Bonarini, Dott. Matteo Matteucci, Dott. Gabriella Pasi

SEPT 2002: School attendance
Società Italiana di Logica e Filosofia delle Scienze (S.I.L.F.S.), Associazione Italiana di Logica e sue Applicazioni (A.I.L.A.) (Italy) –
▪ *IV Scuola Estiva di Logica*
School Director: Prof. Silvio Ghilardi

JUN 2002: School attendance
Computer Science Department - Milano-Bicocca University (Italy)
▪ *Master in Informatica per Umanisti (MIU)*

MAY 2001: Master's degree in Philosophy
University of Milano, Faculty of Humanities, Philosophy Department (Italy)
▪ *Thesis title: First-order Quantifiers as Modal Operators*
Supervisor: Prof. Silvio Bozzi

SEPT 2000: School attendance
Società Italiana di Logica e Filosofia delle Scienze (S.I.L.F.S.), Associazione Italiana di Logica e sue Applicazioni (A.I.L.A.) (Italy) –
▪ *III Scuola Estiva di Logica*
School Director: Prof. Michele Abrusci

Present appointment

- Title of appointment: *Knowledge Representation & Reasoning for Data Management (KR&R, Artificial Intelligence)*
- Start: MARCH 2014
- Level: *Senior Researcher*
- Employer: SIRIS LAB, R&D DIVISION OF SIRIS ACADEMIC SL, BARCELONA, SPAIN
- Brief description of responsibilities:

Alessandro Mosca is responsible for the research and development SIRIS activities in Knowledge Representation and Reasoning (KR&R) for data management. Since March 2014, he has been one of the key persons in the preparation of all the company R&D project applications for the European Commission and Spanish competitive funds. He has been the coordinator of the SIRIS research tasks in the ERC Advanced Grant "*EPNet - Production and distribution of food during the Roman Empire: Economics and political dynamics*" (Project ID: 340828, https://cordis.europa.eu/project/rcn/185438_en.html).

Alessandro supervises the design and development of the open data management platform, called UNiCS (*University Analytics* - <http://unics.cloud>), and of the ontology-based data management technologies the company is currently relying on. In relation to that, he has developed (together with Fernando Roda, and Guillem Rull) the UNiCS ontology behind the platform. With the SIRIS LAB Research Division affiliation, he has co-authored a few scientific publications introducing the SIRIS technologies and technological solutions to the scientific community (see, the publications list below). Indeed, the scientific dissemination of the SIRIS LAB results is also part of his responsibilities.

Alessandro takes part in the consultancy projects of the company (a list of the clients we worked with can be reached at: <http://www.sirisacademic.com/wb/clients/>), whenever a specific conceptual modelling/knowledge representation activity is required, or a data management technology has to be developed. In this respect, he usually collaborates in the elicitation of the final users' requirements and collaborate in managing the coordination among the UNiCS data management back-end, the SIRIS data visualisation and the data analytics teams. During the last four years, Alessandro has been the person responsible for the organisation and coordination of several technology-oriented seminars and courses (from introductory classes on Conceptual Modelling, Knowledge Representation and Reasoning, and Ontology-based Data Management, to more technical ones on the Semantic Web principles and techniques, and formal languages for relational and RDF-based query answering), both directed to the company clients and the SIRIS internal personnel. Since December 2015 until February 2018, he has been member of the SIRIS *Academic Advisory Board* as representative of the SIRIS LAB division of the company.

Professional experience
(including research visiting experiences)

JUNE 2018: *Visiting Researcher* (in the context of the European RISIS project "Research infrastructure for research and innovation policy studies", Grant number 313082, FP7-INFRASTRUCTURES)
'Knowledge Representation and Reasoning' Research Unit – Faculty of Science, Vrije Universiteit Amsterdam (VUA), Netherlands

JAN 2013 - MAR 2014: *Research Assistant*
(Project title: "*Business Process Engineering (BPE)*")
Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Duties and responsibilities: Conceptual modelling software design and development; Process modelling and business processes (re)engineering software design; logical, linguistic and ontological constraints elicitation.
Sector: Education - Research

OCT 2012: *Visiting Researcher* (in the context of the European NET2 project "A network for enabling networked knowledge", Marie Curie action 'International Research Staff Exchange Scheme - IRSES', FP7-PEOPLE-2009-IRSES, Grant number 24761)
Meraka Institute CSIR Research and Development in Information and Communications Technology (ICT), Pretoria, South Africa
Duties and responsibilities: Research-Publications.
Sector: Education – Research

JAN - FEB 2011: *Visiting Researcher* (in the context of the European NET2 project "A network for enabling networked knowledge", Marie Curie action 'International Research Staff Exchange Scheme - IRSES', FP7-PEOPLE-2009-IRSES, Grant number 24761)

Computer Science Department, Universidad de Chile, Santiago de Chile, Chile
Duties and responsibilities: Research-Publications.
Sector: Education - Research

JAN 2010 - DEC 2012: *Assistant Professor*

Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Duties and responsibilities: Teaching; Research; Examinations; Administration.

FEB 2009 - JUL 2009: *Visiting Researcher*

Department of Logic, History and Philosophy of Science, University of Barcelona, Spain
Duties and responsibilities: Research-Publications.
Sector: Education - Research

SEPT 2006 - DEC 2009: *Postdoc Researcher*

Department of Computer Science, Systems and Communication, University of Milano-Bicocca, Italy
Duties and responsibilities: Seminal activities in courses; Research-Publications.
Sector: Education - Research

AUG 2002 - OCT 2002: *Sometime labour*

Computer Science Department - Milano-Bicocca University, Italy
▪ Co-author of the study "An analysis of the Community of Practices, Final Report" (Knowledge Management)
Sector: Education - Research

NOV 2000 - SEPT 2001: *Civil Service*

Consorzio di cooperative Sistema Imprese Sociali di Milano, Italy
▪ Attendant at the "Micro-nido Oplà!" (Oreno di Vimercate, Milano), held by the Cooperativa Sociale Grado 16 – Officine dell'Autopromozione in collaboration with the Vimercate municipality
Sector: Education - Research

JUN 1997 - AUG 1999: *Sometime labour*

▪ Research on the popularity rating of the Ferrovie dello Stato [FS] transborder services (Ferrovie dello Stato, Italy)
▪ Library management (Librerie Feltrinelli Milano, Italy)
▪ Cultural events organisation and management (Associazione e Centro Culturale "Porte Aperte", Milano, Italy)
▪ Collaborator in a sociological research about the social conditions and quality of life of young people in the municipality of Brugherio (Fondazione IARD, Milano, Italy)
Sector: Education - Sociology - Library

**Professional
experience in
research and
technology
transfer projects**

JAN 2018 - today: *Project Coordinator* (@SIRIS Academic, Barcelona, Spain)

"Razonamiento automatico, ejecucion de modelos y analisis de datos a partir de ontologias (REMEDIAL)"
(Proyectos excelencia y proyectos retos: Agencia Estatal de Investigación; Ministry of Economy, Industry and Competitiveness, Spain)
Principal Investigator: Prof. Ernest Teniente - Polytechnic University of Catalonia, BarcelonaTech (UPC), Barcelona, Spain

SEPT 2017 - SEPT 2019: *Project Coordinator* (@SIRIS Academic, Barcelona, Spain)

"OKHAERS: Ontology-based Knowledge Access for the higher education and research sector"

(Project ID: 739717, Funded under: H2020-EU.2.3.2.2. - Enhancing the innovation capacity of SMEs)

JUN 2016 - today: *Project Team Member* (@SIRIS Academic, Barcelona, Spain)
"Desarrollo de un sistema de integración semántica de fuentes de datos relacionales y RDF
Desarrollo de un Sistema de Integración Semántica de fuentes de Datos multiformato (SISDe)"
(PTQ-15-07419: Torres Quevedo Grant, Industrial Research/Technology Transfer, Ministry of Science, Innovation and Universities, Spain)
Principal Investigator: Guillem Rull - SIRIS Academic, Barcelona, Spain

JAN 2016 - JUN 2016: *Project Team Member* (@SIRIS Academic, Barcelona, Spain)
"University Analytics (UNiCS)"
(Open Data Incubator for Europe - ODINE, <https://opendataincubator.eu/>)

JUN 2015 - JUN 2018: *Project Team Member* (@SIRIS Academic, Barcelona, Spain)
"Análisis y caracterización de los patrones de interacción en la producción de conocimiento"
(PTQ-14-06718: Torres Quevedo Grant, Industrial Research/Technology Transfer, Ministry of Science, Innovation and Universities, Spain)
Principal Investigator: Francesco Massucci - SIRIS Academic, Barcelona, Spain

JAN 2014 - DEC 2017: *Project Coordinator* (@SIRIS Academic, Barcelona, Spain)
"Proceso ligero de servitización basado en modelos: aplicación a las TIC (ELASTIC)"
(Proyectos excelencia y proyectos retos: Agencia Estatal de Investigación; Ministry of Economy, Industry and Competitiveness, Spain)
Principal Investigator: Esperanza Marcos Martínez - Polytechnic University of Catalonia, BarcelonaTech (UPC), Barcelona (Spain)

MAR 2014 - today: *Project Coordinator* (@SIRIS Academic, Barcelona, Spain)
"EPNET - Production and distribution of food during the Roman Empire: Economics and political dynamics"
(Project ID: 340828, FP7-IDEAS-ERC, Grant Agreement ERC-AG-SH6 - ERC Advanced Grant - The study of the human past)
Principal Investigator: Prof. José Remesal - University of Barcelona, Barcelona (Spain)

JAN 2012 - DEC 2013: *Project Coordinator* (@KRDB Research Centre, Faculty of Computer Science, Free University of Bozen-Bolzano, Italy)
"Business Process Engineering (BPE)"
(CNR - Italian National Research Council, research project)
Principal Investigator: Prof. Enrico Franconi - KRDB Research Centre, Faculty of Computer Science, Free University of Bozen-Bolzano, Italy

JAN 2010 - DEC 2011: *Project Coordinator* (@KRDB Research Centre, Faculty of Computer Science, Free University of Bozen-Bolzano, Italy)
ONTORULE Project
(FP7/2009-2011, Grant Agreement 231875)

Experience in academic teaching

SEPT 2013 - MAR 2014: *Lecturer*
Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Teaching: ▪ *Logic*, Bachelor in Computer Science
Duties and responsibilities: Teaching; Examinations; Administration.
Sector: Education – Research

SEPT 2010 - JAN 2013: *Lecturer*
Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Teaching: ▪ *Non-classical Logics*, European Master in Computational Logic

Duties and responsibilities: Teaching; Examinations; Administration.
Sector: Education - Research

SEPT 2009 - JUNE 2010: Lecturer

Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Teaching: ▪ *Functional and Logic Programming Language*; Master in Computer Science

Duties and responsibilities: Teaching; Examinations; Administration.
Sector: Education - Research

SEPT 2009 - JUN 2010: Lecturer

Faculty of Computer Science - Free University of Bozen-Bolzano, Italy
Teaching: ▪ *Non-classical Logics*, European Master in Computational Logic
Duties and responsibilities: Teaching; Research-Publications; Examinations; Administration.

Sector: Education - Research

SEPT 2007 - DEC 2008: Lecturer

Computer Science Department - Milano-Bicocca University, Italy
Teaching: ▪ *Computational Models in Artificial Intelligence*, Master in Artificial Intelligence

Duties and responsibilities: Teaching; Research-Publications; Examinations.
Sector: Education - Research

SEPT 2004 - JUN 2006: Lecturer

Computer Science Department - Milano-Bicocca University, Italy

- (1) Knowledge Representation, Master in Artificial Intelligence.
- (2) Programming Languages (I), Bachelor in Computer Science

Sector: Education - Research

NOV 2002 - JUN 2004: Not paid activity

Knowledge Engineering Lab - Computer Science Department - Milano-Bicocca University, Italy

- Seminal activity in the context of the "Modelli Computazionali per la Comunicazione" course of the Communication Science Degree (Faculty of Psychology, Milano-Bicocca University)
- Seminal activity in the context of the "Knowledge Representation" course of the Computer Science Department (Milano-Bicocca University)
- Programming Languages (I), Lecturer (with a "LAE – Laureato Addetto alle Esercitazioni" contract)
European Master "Informatica per Umanisti (MIU)", Lecturer
- European Master "Tecnologie Informatiche per la Nuova Economia (TINE)", Lecturer
- Seminal activity in the context of the "Artificial Intelligence" course of the Computer Science Department (Milano-Bicocca University)
- Seminal activity in the context of the "Modelli Computazionali per la Comunicazione" course of the Communication Science Degree (Faculty of Psychology, Milano-Bicocca University)
- Seminal activity in the context of the "Metodi per la rappresentazione della conoscenza" course of the Communication Science Degree (Faculty of Psychology, Milano-Bicocca University)
- Programming Languages (I), Lecturer (with a "LAE – Laureato Addetto alle Esercitazioni" contract)

Sector: Education - Research

Other academic responsibilities

SEPT 2009 - JUNE 2010: PhD Committee Member

Faculty of Computer Science - Free University of Bozen-Bolzano, Italy

MAR 2010 - MAR 2014: Study Plan Advisor

Memberships

(including responsibilities for organizing conferences/seminars)

- Member of the Program Committee of the *International Conference on Knowledge Engineering and Knowledge Management (EKAW)*, 2018. The 2018 edition has been co-located with the 15th European Semantic Web Conference, 3rd-7th June, Heraklion, Crete, 2018.
- Member of the Program Committee of the workshop "Ontology-based data access (OBDA) for classical archaeological and historical data: the EPNET experience", 19th International Congress of Classical Archaeology (Cologne/Bonn, 22-26 May 2018)
- Member of the Spanish node of the *Research Data Alliance (RDA)* - <https://rd-alliance.org/groups/rda-spain>)
- Co-chair and Proceedings editor of the *International Workshop on Semantic Web for Cultural Heritage*, (SW4CH) (2015 – today)
- Member of the Program Committee of the *Workshop on Answer Set Programming and Other Computing Paradigms (ASPOC)* (2012 – today)
- Referee of the journal *Scienze e Ricerche*, ISSN 2283-5873 (2014 – today)
- Reviewer for the *Journal of Zhejiang University SCIENCE C - Computer & Electronics*, Editor-in-Chief: Yunhe Pan, Springer Berlin Heidelberg (2013 – 2015)
- Reviewer for the *19th International Conferences on Logic for Programming Artificial Intelligence and Reasoning (LPAR)*, 15th-19th December 2013, Stellenbosch, South Africa.
- Additional reviewer for the *26th International Workshop on Description Logics*, July 23–26, 2013 Ulm, Germany.
- Member of the Program Committee of the *24-esimo Convegno Italiano di Logica Computazionale (CILC-09)*, Italian Association for Logic Programming, June 25-26, 2009, Department of Engineering, University of Ferrara, Italy.
- Co-chair for the workshop *Intelligent Agents and Services for Smart Environments*, hosted by the Annual Conference of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour (AISB 2008), April 1-4, 2008, Aberdeen, Scotland.
- Member of the Organising Committee for the *First Workshop on Game Theory*, March 7-8, 2008, Center for Interdisciplinary Studies in Economics, Psychology and Social Sciences (CISEPS), University of Milano-Bicocca, Italy.
- Member of the Organising Committee for the workshop *From the technological Transfer to the Multidisciplinary Research: Towards a new computational approach to Archaeology*, March 8, 2007, Department of Archaeology, University of Bologna, Italy.
- Member of the Organising Committee for the *Second Workshop on Ontology, Conceptualizations and Epistemology for Software and Systems Engineering (ONTOSE-2008)*, June 2007, Department of Computer Science, Systems and Communication, University of Milano-Bicocca, Italy.
- Member of the Organising Committee for the *IX Congress of the Italian Association for Artificial Intelligence*, September 20-23, 2005, University of Milano-Bicocca, Italy.
- Member of the Organising Committee for the workshop *Knowledge Management: The Role, Contributions And Perspectives Of Artificial Intelligence*, Working Group on Artificial Intelligence in Companies, Italian Association for Artificial Intelligence (AI*IA), November 29-30, 2001, University of Milano-Bicocca, Italy.
- Member of the Organising Committee for the workshop *Competitive Innovation And Knowledge Management: Representation And Sharing of Added-value Competencies*, Working Group on Artificial Intelligence in Companies, Italian Association for Artificial Intelligence (AI*IA), November 20-21, 2002, University of Milano-Bicocca, Italy.

Research and scholarships

Alessandro Mosca's current research activity is mainly focused on the design and development of Ontology-based Data Management solutions, which also includes ontologies and mappings specifications. In particular, he is focusing on data

integration and data access/exploration open issues, such as multi-format ontology-based data integration and data access, RDF-based repository query answering, and data exploration for non-technical users.

Despite the fact that since March 2014 he has full time employment in a private enterprise, with responsibilities that go beyond the pure research and publication tasks, he has succeeded in both maintaining old, and build new research collaborations with colleagues from the different academia and research centres. This has been possible thanks to the foundation of the SIRIS LAB research division of SIRIS Academic, which he directly contributed to, and to a coincidence of interests on the following topics: foundations of conceptual modelling languages (mainly, UML-OCL and ORM2), extensions of the OBDM approach towards the efficient temporal and multidimensional data representation and management, SPARQL query answering for non-technical users, visual data exploration.

As for the data he got familiar with while working at the design and implementation of consultancy services of SIRIS, they are the results of knowledge flows across a number of different actors (such as enterprises, academia, research and innovation funding institutions, public authorities and citizens) which animate the so-called *Research and Innovation ecosystems*. Concrete examples include bibliographic information about scientific publications, organisational structures of research institutions, scientific citations and collaboration networks, competitive projects (both at national, international, and regional level), patent applications, social and economic indicators. In policy and decision making, these data represent nowadays the factual evidence to: (i) define future research priorities (e.g., fields, technologies, sectors); (ii) identify emerging technology and competitive solutions for transfer and investments; (iii) shape new innovation policies based on scientific and technological evidence; (iv) perform investment impact measuring and monitoring. The Open Data platform called UNiCS, currently maintained online by SIRIS Academic, is probably the most accessible and evident result of applying the OBDM approach and principles to the semantic-based integration of the above introduced data. The platform, its architecture, software components and client-based *ad-hoc* extensions, is the core of all the SIRIS business intelligence tools to support strategic decision making and institutional accountability.

Publications

▪ Conference papers

Gimenez, X., Mosca, A., Roda, F., Rondelli, B. and Rull, G., UNiCS: The Open Data Platform for Research and Innovation, in Proceedings of the Posters and Demos Track of the 14th International Conference on Semantic Systems, co-located with the 14th International Conference on Semantic Systems (SEMANTICS 2018), Vienna, Austria, September 10-13, 2018.

Mosca, A., Roda, F. and Rull, G., UNiCS - The Ontology for Research and Innovation Policy Making, in *Frontiers in Artificial Intelligence and Applications*, Vol. 306, pp. 200-207, IOS Press, 2018. (DOI10.3233/978-1-61499-910-2-200 - ISBN.978-1-61499-909-6 (print) | 978-1-61499-910-2 (online)).

Mosca, A., Ontology-Mediated Data Integration and Access in Research and Innovation Policy, in Proceedings of the Joint Ontology Workshops 2017 (JOWO 2017), Episode 3: The Tyrolean Autumn of Ontology. Bozen-Bolzano, Italy, September 21–23, 2017. CEUR-WS: 21-Jan-2018, <http://ceur-ws.org/Vol-2050/>.

Mosca, A., Rondelli, B., and Rull, G., The OBDA-Based 'Observatory of Research and Innovation' of the Tuscany Region, in Proceedings of the Joint Ontology Workshops 2017 (JOWO 2017), Episode 3: The Tyrolean Autumn of Ontology. Bozen-Bolzano, Italy, September 21–23, 2017. CEUR-WS: 21-Jan-2018, <http://ceur-ws.org/Vol-2050/>.

Estañol, M., Massucci, F., Mosca, A., and Rafols, I., Integrating domain ontologies with topic modelling for mapping societal problems, in Proceedings of the 16th

International Conference of the International Society for Scientometrics and Informetrics (ISSI 2017), ISSI 2017 Conference. October 16-20, 2017, Wuhan, China.

Mosca, A., Remeseal, J., Rezk, M., and Rull, G., Knowledge Representation in EPNNet. In Morzy, Tadeusz, Patrick Valduriez, and Ladjel Bellatreche, Eds. *New Trends in Databases and Information Systems: ADBIS 2015*. Poitiers, France, September 8-11, 2015. *Communications in Computer and Information Science Proceedings*, Vol. 539, pp. 427-437. Springer, 2015.

Calvanese, D., Mosca, A., Remeseal, J., Rezk, M., and Rull, G., A 'Historical Case' of Ontology-Based Data Access, *Proceedings of the 2015 Digital Heritage International Congress*, Vol. 2, pp. 291-298, IEEE, Granada, 2015, ISBN: 978-1-5090-0047-0, doi: 10.1109/DigitalHeritage.2015.7419510.

Remesal, J., Díaz-Guilera, A., Rondelli, B., Rubio, X., Aguilera, A., Martín-Arroyo, D., Mosca, A., and Rull, G., The EPNNet Project. In *Information Technologies for Epigraphy and Cultural Heritage. Proceedings of the First EAGLE International Conference (Paris, September 29-30 - October 1, 2014)*, Roma 2014, 455-464.

Franconi, E., Mosca, A., Oriol, X., Rull, G. and Teniente, E., Logic Foundations of the OCL Modelling Language. *JELIA 2014 Proceedings*, LNAI 8761, pp. 657-664.

Franconi, E., Gutierrez, C., Mosca, A., Pirrò, G., and Rosati, R., The Logic of Extensional RDFS. *Proceedings of the ISWC-2013, Part I*, LNCS 8218.

Franconi, E., Mosca, A., Towards a core ORM2 language. In *Proceedings of the On the Move to Meaningful Internet Systems: OTM 2013 Workshops, Lecture Notes in Computer Science*, Vol. 8186, 2013.

Casini, G., Mosca, A., Non-monotonic reasoning in conceptual modeling and ontology design: A proposal. *Advanced Information Systems Engineering Workshops, Lecture Notes in Business Information Processing*, Volume 148, 2013, pp 361-370.

Franconi, E., Gutierrez, C., Mosca, A., Pirrò, G., and Rosati, R., The Logic of Extensional RDFS (Extended Abstract). In *Francesco Buccafurri, Domenico Saccà: 21st Italian Symposium on Advanced Database Systems, SEBD 2013, Roccella Jonica, Reggio Calabria, Italy, June 30 - July 4, 2013*. Curran Associates 2013, ISBN 978-1-62993-949-0, SEBD-2013.

Casini, G., Mosca, A., Defeasible Reasoning in ORM2. In *Proceedings of the Eighth Australasian Ontology Workshop (AOW 2012 - Advances in Ontologies)*, Sydney, Australia, December 4, 2012, *CEUR Workshop Proceedings*, Vol. 969, ISSN 1613-0073, <http://ceur-ws.org/>.

Colombo, G., Colombo, E., Bonomi, A., and Mosca, A., Semi-structured data extraction and modelling: the WIA Project. In *Alex Graudenzi, Giulio Caravagna, Giancarlo Mauri and Marco Antonioti: Proceedings Wivace 2013 - Italian Workshop on Artificial Life and Evolutionary Computation (Wivace 2013)*, Milan, Italy, July 1-2, 2013, *Electronic Proceedings in Theoretical Computer Science*, vol. 130, pp. 98–103.

Franconi, E., Mosca, A., and Solomakhin, D., ORM2: Formalisation and Encoding in OWL2. In *Proceedings of the On the Move to Meaningful Internet Systems: OTM 2012 Workshops, Lecture Notes in Computer Science*, Vol. 7567, 2012, pp. 368-378.

Franconi, E., Mosca, A., and Solomakhin, D., ORM2 Encoding into Description Logic . In *Proceedings of the 2012 International Workshop on Description Logics*

(DL-2012), Rome, Italy, June 7-10, 2012, CEUR Workshop Proceedings, Vol. 846, ISSN 1613-0073, <http://ceur-ws.org/>.

Solomakhin, D., Mosca, A., and Franconi, E., Logic-based reasoning support for SBVR. In Proceedings of the 26-esimo Convegno Italiano di Logica Computazionale (CILC-2011), CEUR Workshop Proceedings, Vol. 810, ISSN 1613-0073, <http://ceur-ws.org/>.

Colombo, G., Mosca, A., Training and computation: artificial environments for learning. In Proceedings of the 6th International TICE Méditerranée Conference (TICEMED 2009), ISDM Journal, ISSN 1265-499X.

Bonomi, A., Mosca, A., Palmonari, M., and Vizzari, G., Integrating a Wiki in an ontology driven Web site: approach, architecture and application in the archaeological domain. In Proceedings of the 3rd Semantic Wiki Workshop, co-located with the 5th European Semantic Web Conference (ESWC). CEUR Workshop Proceedings, Vol. 360, ISSN 1613-0073, <http://ceur-ws.org/>.

Bonomi, A., Mantegari, G., Mosca, A., Palmonari, M., and Vizzari, G., A system supporting users of cultural resource management semantic portals. In AI*IA 2007: Artificial Intelligence and Human-Oriented Computing, Lecture Notes in Computer Science, Springer-Verlag, Vol. 4733, pp. 757-764, 2007.

Mosca, A., Palmonari, M., Action based abox update: an example from the chemical compound formulation. In Proc. of the 20th Description Logic Workshop (DL 2007). CEUR Workshop Proceedings, Vol. 250, ISSN 1613-0073, <http://ceur-ws.org/>, 2007.

Bonomi, A., Mosca, A., Palmonari, M., and Vizzari, G., NavEditOW – A system for navigating, editing and querying ontologies through the web. In Knowledge-Based Intelligent Information and Engineering Systems, Lecture Notes in Artificial Intelligence, Springer-Verlag, Vol. 4694, pp. 686-694, 2007.

Bandini, S., Mosca, A., Mereological Knowledge Representation for the Chemical Formulation. In Proceedings of the Second Formal Ontologies Meet Industry Workshop (FOMI 2006), Trento (Italy), December 14-15, 2006.

Colombo, G., Mosca, A., and Palmonari, M., Artefacts need Functional Ontology: Lessons from Engineering Design. In Proceedings of the Fourth International European Conference on Computing and Philosophy 2006 (E-CaP 2006) (Dragvoll Campus, NTNU Norwegian University for Science and Technology, Trondheim, Norway, 22-24 June 2006).

Bandini, S., Mosca, A., and Palmonari, M., A hybrid logic for commonsense spatial reasoning. AI*IA 2005: Advances in Artificial Intelligence, 9th Congress of the Italian Association for Artificial Intelligence, Milan, Italy, September 21-23, 2005, Proceedings. Lecture Notes in Artificial Intelligence, Springer-Verlag, Vol. 3673, Pages 25-37, 2005.

Bandini, S., Bogni, D., Manzoni, S., and Mosca, A., ST modal logic approach to alarm correlation in monitoring and control of Italian highways traffic. In Moonis Ali, Floriana Esposito (Eds.): Innovations in Applied Artificial Intelligence, 18th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE 2005, Bari, Italy, June 22-24, 2005, Proceedings. ISBN 3-540-26551-1, Lecture Notes in Computer Science, Springer-Verlag, Vol. 3533, 2005.

Bandini, S., Mosca, A., and Palmonari, M., Commonsense spatial reasoning for context-aware pervasive systems. Location- and Context-Awareness, First International Workshop, LoCA 2005, Oberpfaffenhofen, Germany, May 12-13, 2005,

Proceedings. Lecture Notes in Computer Science, Springer-Verlag, Vol. 3479, Pages 180-188, 2005.

Bandini, S., Mosca, A., Palmonari, M., and Sartori, F., A conceptual framework for monitoring and control system development. In Luciano Baresi, Schahram Dustdar, Harald Gall, Maristella Matera (Eds.): Ubiquitous Mobile Information and Collaboration Systems, Second CAiSE Workshop, UMICS 2004, Riga, Latvia, June 7-8, 2004, Revised Selected Papers. Lecture Notes in Computer Science, Springer-Verlag, Vol. 3272, Pages 111-124, 2005.

Frisoni, G., Colombo, G., Mosca, A., and Sartori, F., Exploiting Experiential Knowledge for Enhanced CAD Design. In Proceedings of the International Conference on CAE and computational Technologies for Industry (TCN CAE 2005), 5-8 ottobre, Lecce, Italy.

▪ [Journal articles in refereed academic journals](#)

Franconi, E., Mosca, A., Oriol, X., Rull, G. and Teniente, E., OCL-F0: first-order expressive OCL constraints for efficient integrity checking, *Software & Systems Modeling* (2018). <https://doi.org/10.1007/s10270-018-0688-z>.

Calavanese, D., Liuzzo, P., Mosca, A., Remeseal, J., Rezk, M., and Rull, G., Ontology-based data integration in EPNet: Production and distribution of food during the Roman Empire, *Engineering Application of Artificial Intelligence (EAAI)*, DOI: 10.1016/j.engappai.2016.01.005, <http://dx.doi.org/10.1016/j.engappai.2016.01.005>, 2016.

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Dopfer, K., Mosca, A., Rondelli, B., Stride, S., and Bandini, S., *The Samarqand's cultural landscape: a rule based approach*. Presented at the Regional Conference of the Central Eurasian Studies Society (CESS-2008), August 4-7, 2008, Issyk-Kul, Kyrgyzstan.

Ciborra, U. C., Hanseth, O., *From tool to "Gestell". Agendas for managing the information infrastructure*. Traduzione in lingua italiana a cura di Alessandro Mosca per Studi Organizzativi, Aprile 2006, Franco Angeli.

Invited seminars and talks
(over the past 3 years)

▪ Department of Computer Science and Information Systems, Birkbeck College, Monday, 18 June 2018
Invited seminar

▪ JIRC: Journée Informatique de Région Centre, Laboratoire d'Informatique Fondamentale et Appliquée de Tours, Polytech'Tours, Thursday, 29 November 2018
Keynote speaker

▪ Computer Department of Blois, François Rabelais University, 28 November 2018
Invited seminar

▪ The EOSC Stakeholder Forum, in Shape the future EOSC in Brussels 28-29 November 2017
Invited panellist

▪ The Joint Ontology Workshops 2017 Episode 3: The Tyrolean Autumn of Ontology (JOWO 2017), Bozen-Bolzano, Italy, September 21-23, 2017
Keynote speaker

Statement of interest

Alessandro Mosca expected contributions to the advertised position are directly related to his academic and business experiences. In the academia he has successfully coordinated several research projects, both individually and in team,

while taking a special attention to the dissemination activities involving presentation at conferences and workshops, and publication of the main results in relevant venues and scientific journals. His teaching experience, both at the University of Milano-Bicocca and at the Free University of Bozen-Bolzano, has been always positively evaluated both by the students and the colleagues at the faculty, showing a high level of professionalism in preparing the courses' material, catching the students' attention and motivating them to do their best, even when the introduced topics were 'well advanced' from a scientific point of view. If teaching has mainly to do with *knowledge transfer*, Alessandro Mosca has shown a strong commitment on that during his entire career, both in the academia and the private company he is currently employed.

He started working in SIRIS Academic at the moment the company was composed by the original four partners and a few collaborators (no more than four additional persons). It was March 2014 and SIRIS Academic was born without a clear understanding of its business model and market. Alessandro definitely contributed to create an enterprise that nowadays counts on around 30 employees and an annual revenue of about 2M €, a significant part of which comes from the data management technologies designed and implemented by the SIRIS LAB research division team he directly coordinated and contributed to growth.

In the business context then, the knowledge transfer objectives met the *technology transfer* ones, and became all together a major responsibility of Alessandro. Exchanging with clients (having no technical background in most of the cases), specifying their information needs and requirements (even when initially unknown by the clients themselves), acquiring their domain knowledge, and consequently finding the best available solutions, both in economic and functional terms, are tasks that he positively achieved, thus giving the possibility to the company to get an exponential growth on the market and extend its business potentialities.

The above story, and the rest of his CV, tell that Alessandro Mosca has all the necessary pre-conditions and skills to provide a successful contribution to the future life of the *Smart Data Factory*. His research experience, and the topics he became expert on, are perfectly in line with the (technological and know-how-based) services the factory aims at developing and offering, especially considering its CORE, DBS, FDT, and In2Data 'areas of expertise'. This, and his more recent business-centred experience, put Alessandro in the best condition to have a fruitful exchange with both the scientists of the Computer Science Faculty and those enterprises in the market that are looking for highly innovative and effective solutions to the data management challenges they are facing.

Language competence

Mother tongue: *Italian*

Other language(s):

<i>English</i>	<i>French</i>	<i>Spanish</i>	<i>Catalan</i>
UNDERSTANDING Listening: C1 Reading: C1	UNDERSTANDING Listening: B1 Reading: B1	UNDERSTANDING Listening: B1 Reading: B1	UNDERSTANDING Listening: B1 Reading: B1
SPEAKING Spoken interaction: C1 Spoken production: C1	SPEAKING Spoken interaction: B1 Spoken production: B1	SPEAKING Spoken interaction: B1 Spoken production: B1	SPEAKING Spoken interaction: B1 Spoken production: B1
WRITING: C1	WRITING: B2	WRITING: B1	WRITING: B2

Driving license

A, B

Barcelona, November 30th 2018 (Spain)