

### Current position

2024–current **Full Professor**, *Free University of Bozen-Bolzano*, Bolzano, Italy.

### Education

June 1998 **PhD in Computer Science Engineering (Dottorato di Ricerca in Ingegneria Informatica)**, *joint program of the Università “La Sapienza” di Roma and the Università di Trento, Italy*

Title of the Thesis: “Local Models Semantics. Theory and two relevant applications”. Supervisor: Professor Fausto Giunchiglia (Università di Trento). The research involved the definition of a semantics for contextual reasoning, and its application for capturing some relevant theoretical aspects of distributed information systems and multi-agent systems.

February 1994 **Master Degree in Computer Science (Laurea in Scienze dell’Informazione)**, *Università degli Studi di Milano*, Milan, 110/110 *cum laude* (first class degree)

Title of the Thesis: “Semantiche a Modelli Locali per Logiche Multicontestuali” (Local Models Semantics for Multi Context Logics). Supervisors: Professor Giovanni Degli Antoni (Università di Milano), and Professor Fausto Giunchiglia (IRST, Trento).

### Further Qualifications

**Italian National Scientific Qualification**, *Italian National Scientific Qualification as Full Professor (Prima Fascia) in Computer Science (Scientific Sector INF/01) and Computer Science Engineering (Scientific Sector ING-INF/05)*.

### Research Interests

Development and application of frameworks mainly based on Knowledge Representation & Reasoning and Machine Learning techniques for capturing theoretical and practical aspect of distributed knowledge representation systems (with particular emphasis to business process modelling and ontologies).

### Main Current Research Collaborations

W.M.P. van der Aalst (RWTH Aachen). Topics: *hybrid process mining*.

M. Roveri (University of Trento), C. Di Ciccio (Sapienza Università di Roma). Topics: *Unsat Core computation for LTLf*.

M. Dumas (University of Tartu), F. M. Maggi (Free University of Bozen/Bolzano) Topics: *predictive process monitoring*.

R. De Masellis (University of Uppsala), S. Tessaris (Free University of Bozen/Bolzano), M. Montali (Free University of Bozen/Bolzano). Topics: *formal verification of data-aware processes*.

S. P. Ponzetto, H. van der Aa:(University of Mannheim). Topics: *process and event knowledge graph extraction from text*.

F. M. Maggi, M. Montali, S. Tessaris (Free University of Bozen/Bolzano), P. Mello, F. Chesani (University of Bologna). Topics: *AI techniques for process management and analytics, discovery of temporal rules from data, and deviance mining.*

M. Comuzzi (Ulsan National Institute of Science and Technology), F. M. Maggi (Free University of Bozen/Bolzano), A. Nolte (University of Tartu): Topics: *user evaluation of Explainability methods for predictive process monitoring.*

C. Di Francescomarino (University of Trento), D. Massimo, F. Ricci, Topics: *Reinforcement Learning approaches to recommend best next activities in processes.*

G. Adamo (Basque Centre for Climate Change (BC3)), S. Borgo, N. Guarino (Laboratory of Applied Ontology, Istc-Cnr). Topics: *Conceptual and Ontological foundations of workprocess entities.*

R. Aringhieri, G. Boella R. Ferrod, L. Di Caro, E. Sulis (University of Turin): Topics: *Applications of Process Mining, prediction and optimization in Home Hospitalization Services*

L. Genga, N. Zannone (Eindhoven University of Technology). Topics: *Predicting Critical Behaviors in workprocess data.*

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## Previous appointments held

- 01/2013–12/2024 **Senior Research Scientist (tenured)**, *Fondazione Bruno Kessler*, Trento, Italy. Leader of the *Process & Data Intelligence* research unit of Fondazione Bruno Kessler. My main activities did concern the investigation of techniques and methodologies for the elicitation, representation, and evolution of formal models together with (execution) data and the handling of the strategic objectives of the project.
- 01/2008–12/2013 **Senior Research Scientist (tenured)**, *Fondazione Bruno Kessler*, Trento, Italy. Member of the *Data and Knowledge Management* research unit. My main research activities did concern the investigation of techniques and methodologies for the modelling and representation of (distributed) knowledge.
- 01/2008–12/2013 **Senior Research Scientist**, *Istituto Trentino di Cultura (now Fondazione Bruno Kessler)*, Trento, Italy. Member of the *Automated Reasoning Systems (SRA)* research division. My main research activities did concern the investigation of techniques and methodologies for the modelling and representation of (distributed) knowledge.
- 01/2001–04/2003 **Lecturer**, *Department of Computer Science, University of Liverpool*, Liverpool, UK. Member of the *Logic and Computation* group. My main research activity did concern the study and definition of formal systems for the specification and logical execution of rational agents. Lecturer in charge of the module “Advanced database management” for both undergraduate and postgraduate students, and of the module “Distributed Information systems” for postgraduate students.
- 08/1999–12/2000 **Research Fellow**, *Department of Computing and Mathematics, Manchester Metropolitan University (MMU)*, Manchester, UK. Member of the Centre for Agent Research and Development at the Department of Computing and Mathematics, Manchester Metropolitan University. My main research activity inside the Centre was focused on the application of multi-context logics to agent-based systems.
- 09/1998–07/1999 **Visiting Research Fellow, supported by the National Research Council (CNR) of Italy.**, *Department of Computing and Mathematics, Manchester Metropolitan University (MMU)*, Manchester, UK. Visiting the Centre for Agent Research and Development at the Department of Computing and Mathematics, Manchester Metropolitan University. My main research activity inside the Centre was focused on the application of multi-context logics to agent-based systems.

- 3/1998-7/1998 **Consultant**, *Università di Trento*, Trento, Italy, Assessment of the state of the art on Information Tecnology and turism. Supervisor: Prof. Mariangela Franch
- 9/1994-12/1994 **Consultant**, *Università di Trento*, Trento, Italy, Application of Fuzzy Logics to Economics. Supervisor: Prof. Alessandro Zorat

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## Boards and Editorial Boards

- 2015-current Elected Member of the board of the Italian Association for Artificial Intelligence (AI\*IA). **Since 2021 Vice-President**
- 2023-current Board Member of the BPM Conference Steering Committee
- 2021-2023 Board Member of the Semantic Web Science Association - SWSA
- 2021-2023 Board Member of the CINI Lab in Artificial Intelligence and Information Systems
- 2012-2016 Associated member of the Institute of cognitive sciences and technologies, National ‘Research Council of Italy (ISTC-CNR)
- 2016-current member of the editorial board of *Intelligenza Artificiale*
- 2022-current member of the editorial board of *PeerJ Computer Science*
- Managing *Associate Editor* for:
- Information Systems – special issue *BPM 2020 Selected Papers in Foundations and Engineering*.
  - Semantic Web – special issue *Selected Papers from EKAW 2018*.
  - Intelligenza Artificiale – special issue: *Selected and revised papers from the 17th International Conference of the Italian Association for Artificial Intelligence*.
  - Autonomous Agents and Multi Agent Systems – special issue: *EUMAS 2004 selected papers*.

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## Five recent publications characterising my research

Federico Chesani, Chiara Di Francescomarino, Chiara Ghidini, Daniela Loreti, Fabrizio Maria Maggi, Paola Mello, Marco Montali, Sergio Tessaris: Process Discovery on Deviant Traces and Other Stranger Things. *IEEE Trans. Knowl. Data Eng.* 35(11): 11784-11800 (2023)

Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, Sergio Tessaris: Solving reachability problems on data-aware workflows. *Expert Syst. Appl.* 189: 116059 (2022)

Chiara Di Francescomarino, Marlon Dumas, Marco Federici, Chiara Ghidini, Fabrizio Maria Maggi, Williams Rizzi, and Luca Simonetto. Genetic algorithms for hyperparameter optimization in predictive business process monitoring. *Inf. Syst.*, 74(Part):67–83, 2018.

Chiara Ghidini and Luciano Serafini. Distributed First Order Logic. *Artificial Intelligence*, 253:1–39, December 2017.

Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, Marco Montali, and Sergio Tessaris. Add data into business process verification: Bridging the gap between theory and practice. In Satinder P. Singh and Shaul Markovitch, editors, *Proceedings of the 31st AAAI Conference on Artificial Intelligence*, February 4-9, 2017, San Francisco, California, USA., pages 1091–1099. AAAI Press, 2017.

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## Organisational Activities

- 2024 Tutorial co-chair of the 14th International Conference on Formal Ontologies in Information Systems (FOIS 2024).
- 2023 Co-organizer of the fourth edition of *Data4SmartHealth 2023*, NOI techpark, Bolzano.  
Co-organizer of the workshop *AI per la Medicina e la Salute* at the third ITAL-IA "Convegno Nazionale CINI sull'Intelligenza Artificiale", Pisa, Italy.
- 2022 Co-organizer of the third edition of *Data4SmartHealth 2022*, NOI techpark, Bolzano.  
Co-organizer of the workshop *AI per la Medicina e la Salute* at the second "Convegno Nazionale CINI sull'Intelligenza Artificiale", Virtual Event.
- 2020 Engineering Track Programme co-chair of the 18th International Conference on Business Process Management (BPM 2020). Virtual Event
- 2019 Research Track Programme co-chair of the 18th International Semantic Web Conference (ISWC 2019)  
Co-organiser of the First Ontological and Foundational Perspectives in Business Process Modelling workshop (onBPM 2019) at BPM 2019
- 2018 Programme co-chair of the 21th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2018)  
Programme co-chair of the 17th International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2018)
- 2016 Workshop & tutorial co-chair of the 15th International Semantic Web Conference (ISWC 2016)  
PhD symposium co-chair of the 13th Extended Semantic Web Conference (ESWC 2016)
- 2014 Local co-organiser of the 13th International Semantic Web Conference (ISWC 2014)  
PhD Symposium co-chair at the 19th International Conference on Knowledge Engineering and Knowledge Management (EKAW2014)
- 2013 Workshop & Tutorial co-chair at the 2013 K-CAP conference (K-CAP 2013)
- 2012 Ontology track chair at the 9th Extended Semantic Web Conference (ESWC 2012)
- 2011 Programme co-chair of I-semantics 2011
- 2009 Tutorial co-chair of the 6th Annual European Semantic Web Conference (ESWC 2009)
- 2008 Co-organiser of 4th Workshop on Contexts and Ontologies: (C&O-2008)
- 2007 Chair of the Steering Committee of the 6th International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT'07)  
Co-organiser of the Third International Workshop on Contexts and Ontologies: Representation and Reasoning (C&O:RR-2007)
- 2006 Co-organiser of the 2nd International Workshop on Context Representation and Reasoning (CRR2006)
- 2005 Chair of the Doctoral consortium at the 4th International Conference on Modelling and Using Context (CONTEXT'05)  
Steering committee member of the 5th International Conference on Modeling and Using Context (Context-05).
- 2004 General co-chair of the 2nd european workshop on multi-agent systems (EUMAS'04)

- Co-organiser of the ISWC 2004 Workshop on Semantic Web Technology for Mobile and Ubiquitous Applications
- Programme co-chair of the 1st Annual International Conference on Mobile and Ubiquitous Systems: Networking and Services (MobiQuitous'04)
- 2003 Programme co-chair of the Fourth International Conference on Modeling and Using Context (Context-03) Stanford, California (USA) June 23-25, 2003.
- 2001 Co-organizer of the workshop “Contexts in Logics”, Dundee, July 30, 2001.

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## Invited Talks, and Scientific Panels

- 8/02/2023 Invited Talk at the AAAI 2023 Bridge Program on Artificial Intelligence and Business Process Management. Title of the talk *Data, Conceptual Knowledge, and AI: What can they do together?*.
- 20/01/2023 Invited Talk at 23eme conférence Extraction et Gestion des Connaissances (EGC). Title of the talk *Data-aware Processes and their Executions: what's in for Knowledge Representation and Graphs*.
- 6/10/2022 Panelist at the EDOC 2022 26th Enterprise Computing Management conference. Title of the panel: *Augmented Business Process Management*.
- 16/09/2022 Invited talk at BPM 2022 20th Int. Conf. on Business Process Management. Title of the talk: *Data, Conceptual Knowledge, and AI: What can they do together?*.
- 12/09/2022 Panelist at a Panel discussion on *Challenges and Opportunities for NLP in BPM* organised at the 1st workshop on Natural Language Processing for Business Process Management (NLP4BPM).
- 23/07/2022 Invited talk at the IJCAI'2022 International Workshop on Process Management in the AI era (PMAI@IJCAI). Title of the talk: *Predictive and proactive trustable process monitoring*.
- 5/04/2019 Institutional Presentation at “Ontology makes sense” - A symposium in honour of Nicola Guarino, University of Trento, Italy on the impact of Nicola Guarino research on Fondazione Bruno Kessler and the Trentino region.
- 2011 Invited talk at the IJCAI'2011 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE 2011). Title of the talk: Multi-context logics 20 years on: outcomes & challenges.
- 2007 Invited talk at the Third European Starting AI Researcher Symposium (STAIRS'07). Title of the talk: How to write a good grant proposal.

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## Selected Research Projects

- 2020-2023 FBK Grant holder in the H2020 Network of Excellence (NOE) *HumanE-AI-Net*. The NOE is coordinated by Prof. Paul Lukowicz (DFKI), includes a wide number of research institutions and companies around Europe and has the goal of fostering scientific excellence and impact in AI in Europe. Amount for FBK:210.000,00 EUR
- 2020-2023 FBK Grant holder of the mission project I of the *Circular Health for Industry* project funded by Compagnia di san Paolo. The project, coordinated by the University of Torino (Prof. Guido Boella) has the overall goal of applying Artificial Intelligence (AI) techniques to the industries producing healthcare following a circular approach thus including both hospitals (for humans) and farming (for animals and food production). Mission project I focuses on the application of process mining and predictive process monitoring techniques to improve the organization of hospitals. Amount for FBK:200.000,00 EUR

- 2019-2021 Grant holder of two Industrial Projects titled *Mining Processes from Text* founded by Dompè Farmaceutica. The project had the goal of investigating techniques and build tools to extract and simplify business process descriptions from documents describing Standard Operating Procedure of Dompè Farmaceutica. Total Amount for FBK:80.000,00 EUR
- 2016-2019 Work package leader of Work Packages 1 “Foundations of Organizational Modeling” and 3 “Hybrid Monitoring” of the *KAOS* (Knowledge-Aware Operational Support) Interregional Project Network (IPN) founded by the European Region Tyrol-South Tyrol-Trentino (EGTC) via the Euregio Science Fund. The project had the goal of investigating the foundations of Data-aware business processes. Coordinator: Prof. Diego Calvanese. Amount for FBK:244.518,75 EUR
- 2016-2017 Grant holder of the project *GrantPro: an analysis of the control and documental flows to support the management of research projects* carried out for the “Servizio Istruzione” (Education Sector) of the Autonomous Province of Trento. The project had the goal of eliciting some of the procedures of the Autonomous Province of Trento. Amount for FBK:50.000,00 EUR
- 2013-2016 FBK Grant holder of the EU project *SO-PC-Pro* (Subject-Oriented for People-Centred Production). Scientific Coordinator: Dr. Matthias Neubauer (Universitaet Linz, Austria). Amount for FBK:379.000,00 EUR
- 2011-2014 FBK Grant holder of the EU project *Organic.Lingua*. Scientific Coordinator: Dr. Salvador Sanchez-Alonso (University of Alcalá, Spain). Amount for FBK:225.000,00 EUR
- 2013-2015 FBK grant holder of the Industrial Project *PRESTO: Plausible Representation of Emergency Scenarios for Training Operations* in collaboration with DELTA Informatica. Amount for FBK:130.000,00 EUR
- 2010-2012 Involved in the Industrial Project *Promo: A Collaborative and Agile Service-Based Approach to the Modeling and Monitoring of Business Processes* in collaboration with SAYservice. Amount for FBK:120.000,00 EUR
- 2010-2012 Involved in the CISIS Inter-regional project *Progetto Dematerializzazione (ProDe)*. Coordinator: Andrea Nicolini. Amount for FBK:128.000,00 EUR
- 2006-2010 Involved in the EU IP project *Advanced Process-Oriented Self-Directed Learning Environment (APOSLE)*. Scientific Coordinator: Dr. Stefanie Lindstaedt (Know-Center, Graz, Austria). Amount for FBK:600.000,00 EUR
- 2006-2009 Involved in the FIRB project *Representing Organizational Knowledge: models and digital applications for distributed systems of firms*. Grant-holder: Prof. Massimo Warglien, Università Ca’Foscari, Venezia.
- 2002-2003 Awarded a Nuffield Research grant for newly appointed lecturers. Title of the project *A formal framework for distributed information management*. The grant provides 3000GBP to support travel and international collaborations.

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## Awards

- 2023 Best student paper award at the 5th International Conference on Process Mining (ICPM 2023) (Rome, Italy October 23-27, 2023). Title of the paper: Francesca Meneghello, Chiara Di Francescomarino and Chiara Ghidini, “Runtime Integration of MachineLearning and Simulation for Business Processes”

- 2018 Best demo award at the 15 International Conference on Business Process Management BPM 2017 (Barcelona, Spain September 10-15, 2017). Demo title: Kerwin Jorbina, Andrii Rozumnyi, Ilya Verenich, Chiara Di Francescomarino, Marlon Dumas, Chiara Ghidini, Fabrizio Maria Maggi, Marcello La Rosa, Simon Rabocz, “Nirdizati: A Web-Based Tool for Predictive Process Monitoring”
- 2016 Best paper Award at the 18th International Conference on Advanced Information Systems and Engineering CAiSE2016 (13-17 June 2016, Ljubljana, Slovenia). Paper title: Chiara Di Francescomarino, Marlon Dumas, Marco Federici, Chiara Ghidini, Fabrizio Maria Maggi, Williams Rizzi, “Predictive Business Process Framework with Hyperparameter Optimization”
- 2014 Best Research Paper Award at the 18th Enterprise Computing Conference (IEEE EDOC 2014). Paper title: C. Di Francescomarino, M. Rospocher, C. Ghidini, and A. Valerio. The Role of Semantic Annotations in Business Process Modelling.
- 2012 Honorable mention at the Semantic Web Research Track of the 11th International Semantic Web Conference (ISWC 2012). Paper title: Alexander Borgida, Manuel Atencia, Jérôme Euzenat, Chiara Ghidini, Luciano Serafini. A Formal Semantics for Weighted Ontology Mappings.
- 2008 Honorable mention at the Semantic Web In Use Track of the 7th International Semantic Web Conference (ISWC 2008). Paper title: Conny Christl, Chiara Ghidini, Joanna Guss, Viktoria Pammer, Marco Rospocher, Stefanie Lindstaedt, Peter Scheir, and Luciano Serafini. Deploying semantic web technologies for work integrated learning in industry. a comparison: Sme vs. large sized company.
- 1998 Best Paper Award at the VIII International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA’98), Sozopol (Bulgaria), 21-23 settembre 1998. Paper title: M. Benerecetti, P. Bouquet, C. Ghidini, Formalizing Belief Reports. The approach and a Case Study.

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## Selected teaching and teaching board experience

- 2018-current member of the PhD board (collegio docenti) of the PhD in Computer Science, Free University of Bozen-Bolzano
- 2013-2017 member of the PhD board (collegio docenti) of the PhD in Information Engineering (Ingegneria dell’Informazione) XXIX-XXX-XXXI cycle, University of Brescia
- 2018-current Lecturer in charge of the course “Process Mining” for the Master of Science in Data Science, University of Padua. The teaching is done in collaboration with Dr. Chiara Di Francescomarino
- 2012-2015 lecturer in charge of the module “Logics for knowledge representation (Knowledge representation and automated reasoning)” at the ICT International Doctoral School, University of Trento, for the Academic years 2012/2013, 2013/2014, 2014/2015
- 2011-current Lecturer (together with Luciano Serafini) for the module “Logics for Knowledge Representation and Semantic Web” for Doctoral students at the International Doctoral School, University of Trento.
- 2014-2015 Teaching assistant for the module “*Mathematical Logic*” for undergraduate students at the University of Trento, Italy.
- 2013-2014 Teaching assistant for the module “*Mathematical Logic*” for undergraduate students at the University of Trento, Italy.
- 1/2002 - 4/2003 Lecturer in charge of the module “*Advanced database management*” for both undergraduate and postgraduate students, and of the module “*Distributed Information systems*” for postgraduate students at the Department of Computer Science, University of Liverpool.

- 9/2000 - 12/2000 Teaching assistant for the undergraduate module “*Program and Data Structures*” at the Department of Computing and Mathematics, MMU.
- 11/1999 - 6/2000 Teaching assistant for the undergraduate module “*Programming*” at Department of Computing and Mathematics, MMU.
- 2/1998 - 6/1998 Teaching assistant for the undergraduate module “*Linguaggi e Traduttori*” (Compilers). Università di Trento (25 hours).
- 2/1996 - 6/1996 Teaching assistant for the undergraduate module “*Linguaggi e Traduttori*” (Compilers). Università di Trento (25 hours).
- 9/1994 - 2/1995 Teaching assistant for the undergraduate module “*Calcolo automatico*” (Algorithms). Università di Trento (20 hours).

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## Selected publications

The entire list of my publications is available in DBLP at <https://dblp.uni-trier.de/pers/hd/g/Ghidini:Chiara>

### Selected Journal Papers

Wil M. P. van der Aalst, Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, and Humam Kourani. Discovering hybrid process models with bounds on time and complexity: When to be formal and when not? *Inf. Syst.*, 116:102214, 2023.

Federico Chesani, Chiara Di Francescomarino, Chiara Ghidini, Daniela Loreti, Fabrizio Maria Maggi, Paola Mello, Marco Montali, and Sergio Tessaris. Process discovery on deviant traces and other stranger things. *IEEE Trans. Knowl. Data Eng.*, 35(11):11784–11800, 2023.

Williams Rizzi, Chiara Di Francescomarino, Chiara Ghidini, and Fabrizio Maria Maggi. How do I update my model? on the resilience of predictive process monitoring models to change. *Knowl. Inf. Syst.*, 64(5):1385–1416, 2022.

Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, and Sergio Tessaris. Solving reachability problems on data-aware workflows. *Expert Syst. Appl.*, 189:116059, 2022.

Piergiorgio Bertoli, Francesco Corcoglioniti, Chiara Di Francescomarino, Mauro Dragoni, Chiara Ghidini, and Marco Pistore. Semantic modeling and analysis of complex data-aware processes and their executions. *Expert Syst. Appl.*, 198:116702, 2022.

Greta Adamo, Chiara Ghidini, and Chiara Di Francescomarino. What is a process model composed of? *Softw. Syst. Model.*, 20(4):1215–1243, 2021.

Greta Adamo, Chiara Di Francescomarino, Chiara Ghidini, and Fabrizio Maria Maggi. Beyond arrows in process models: A user study on activity dependences and their rationales. *Inf. Syst.*, 100:101762, 2021.

Giulio Petrucci, Marco Rospocher, and Chiara Ghidini. Expressive ontology learning as neural machine translation. *J. Web Semant.*, 52-53:66–82, 2018.

Chiara Di Francescomarino, Marlon Dumas, Marco Federici, Chiara Ghidini, Fabrizio Maria Maggi, Williams Rizzi, and Luca Simonetto. Genetic algorithms for hyperparameter optimization in predictive business process monitoring. *Inf. Syst.*, 74(Part):67–83, 2018.



Federico Chesani, Paola Mello, Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, Marco Montali, and Sergio Tessaris. Compliance in business processes with incomplete information and time constraints: a general framework based on abductive reasoning. *Fundam. Inform.*, 161(1-2):75–111, 2018.

Chiara Ghidini and Luciano Serafini. Distributed First Order Logic. *Artificial Intelligence*, 253:1–39, December 2017.

Chiara Di Francescomarino, Chiara Ghidini, and Marco Rospocher. Evaluating Wiki Collaborative Features in Ontology Authoring. *IEEE Transactions on Knowledge and Data Engineering*, 26(12):2997 – 3011, 2014.

Chiara Ghidini, Chiara Di Francescomarino, Marco Rospocher, Paolo Tonella, and Luciano Serafini. Semantics based aspect oriented management of exceptional flows in business processes. *Systems, Man, and Cybernetics, Part C: Applications and Reviews, IEEE Transactions on*, 42(1):25–37, January 2012.

Chiara Di Francescomarino, Chiara Ghidini, Marco Rospocher, Luciano Serafini, and Paolo Tonella. A framework for the collaborative specification of semantically annotated business processes. *Journal of Software Maintenance and Evolution: Research and Practice*, 23(4):261–295, June 2011.

Michael Fisher and Chiara Ghidini. Executable specifications of resource-bounded agents. *Journal of Autonomous Agents and Multi-Agent Systems*, 21(3):368–396, August 2010.

Michael Fisher and Chiara Ghidini. Exploring the future with resource-bounded agents. *Journal of Logic, Language and Information*, 18(1):3–21, January 2009.

Paolo Bouquet, Chiara Ghidini, Fausto Giunchiglia, and Enrico Blanzieri. Theories and uses of context in knowledge representation and reasoning. *Journal of Pragmatic*, 35(3):455–484, March 2003.

Chiara Ghidini and Fausto Giunchiglia. Local models semantics, or contextual reasoning = locality + compatibility. *Artificial Intelligence*, 127(2):221–259, April 2001.

Massimo Benerecetti, Paolo Bouquet, and Chiara Ghidini. Contextual reasoning distilled. *Philosophical Foundations of Artificial Intelligence. A special issue of the journal of Experimental and Theoretical AI (JETAI)*, 12(3):279–305, 2000.

### Selected (mainly recent) Conference Papers

Francesca Meneghello, Chiara Di Francescomarino, and Chiara Ghidini. Runtime integration of machine learning and simulation for business processes. In *5th International Conference on Process Mining, ICPM 2023, Rome, Italy, October 23-27, 2023*, pages 9–16. IEEE, 2023.

Andrei Buliga, Chiara Di Francescomarino, Chiara Ghidini, and Fabrizio Maria Maggi. Counterfactuals and ways to build them: Evaluating approaches in predictive process monitoring. In Marta Indulska, Iris Reinhartz-Berger, Carlos Cetina, and Oscar Pastor, editors, *Advanced Information Systems Engineering - 35th International Conference, CAiSE 2023, Zaragoza, Spain, June 12-16, 2023, Proceedings*, volume 13901 of *Lecture Notes in Computer Science*, pages 558–574. Springer, 2023.

Federico Chesani, Chiara Di Francescomarino, Chiara Ghidini, Giulia Grundler, Daniela Loreti, Fabrizio Maria Maggi, Paola Mello, Marco Montali, and Sergio Tessaris. Optimising business process discovery using answer set programming. In

Georg Gottlob, Daniela Incezan, and Marco Maratea, editors, *Logic Programming and Nonmonotonic Reasoning - 16th International Conference, LPNMR 2022, Genova, Italy, September 5-9, 2022, Proceedings*, volume 13416 of *Lecture Notes in Computer Science*, pages 498–504. Springer, 2022.

Greta Adamo, Chiara Di Francescomarino, and Chiara Ghidini. Digging into business process meta-models: A first ontological analysis. In Schahram Dustdar, Eric Yu, Camille Salinesi, Dominique Rieu, and Vik Pant, editors, *Advanced Information Systems Engineering - 32nd International Conference, CAiSE 2020, Grenoble, France, June 8-12, 2020, Proceedings*, volume 12127 of *Lecture Notes in Computer Science*, pages 384–400. Springer, 2020.

Chiara Di Francescomarino, Chiara Ghidini, Fabrizio Maria Maggi, and Fredrik Milani. Predictive process monitoring methods: Which one suits me best? In Mathias Weske, Marco Montali, Ingo Weber, and Jan vom Brocke, editors, *Business Process Management - 16th International Conference, BPM 2018, Sydney, NSW, Australia, September 9-14, 2018, Proceedings*, volume 11080 of *Lecture Notes in Computer Science*, pages 462–479. Springer, 2018.

Wil M. P. van der Aalst, Riccardo De Masellis, Chiara Di Francescomarino, and Chiara Ghidini. Learning hybrid process models from events - process discovery without faking confidence. In Josep Carmona, Gregor Engels, and Akhil Kumar, editors, *Business Process Management - 15th International Conference, BPM 2017, Barcelona, Spain, September 10-15, 2017, Proceedings*, volume 10445 of *Lecture Notes in Computer Science*, pages 59–76. Springer, 2017.

Arik Senderovich, Chiara Di Francescomarino, Chiara Ghidini, Kerwin Jorbina, and Fabrizio Maria Maggi. Intra and inter-case features in predictive process monitoring: A tale of two dimensions. In Josep Carmona, Gregor Engels, and Akhil Kumar, editors, *Business Process Management - 15th International Conference, BPM 2017, Barcelona, Spain, September 10-15, 2017, Proceedings*, volume 10445 of *Lecture Notes in Computer Science*, pages 306–323. Springer, 2017.

Chiara Di Francescomarino, Chiara Ghidini, Fabrizio Maria Maggi, Giulio Petrucci, and Anton Yeshchenko. An eye into the future: Leveraging a-priori knowledge in predictive business process monitoring. In Josep Carmona, Gregor Engels, and Akhil Kumar, editors, *Business Process Management - 15th International Conference, BPM 2017, Barcelona, Spain, September 10-15, 2017, Proceedings*, volume 10445 of *Lecture Notes in Computer Science*, pages 252–268. Springer, 2017.

Riccardo De Masellis, Chiara Di Francescomarino, Chiara Ghidini, Marco Montali, and Sergio Tessaris. Add data into business process verification: Bridging the gap between theory and practice. In Satinder P. Singh and Shaul Markovitch, editors, *Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence, February 4-9, 2017, San Francisco, California, USA.*, pages 1091–1099. AAAI Press, 2017.

Giulio Petrucci, Chiara Ghidini, and Marco Rospocher. Ontology learning in the deep. In Eva Blomqvist, Paolo Ciancarini, Francesco Poggi, and Fabio Vitali, editors, *Knowledge Engineering and Knowledge Management - 20th International Conference, EKAW 2016, Bologna, Italy, November 19-23, 2016, Proceedings*, volume 10024 of *Lecture Notes in Computer Science*, pages 480–495. Springer, 2016.

Chiara Di Francescomarino, Marlon Dumas, Marco Federici, Chiara Ghidini, Fabrizio Maria Maggi, and Williams Rizzi. Predictive Business Process Monitoring

Framework with Hyperparameter Optimization. In *Proceedings of the 28th International Conference on Advanced Information Systems Engineering (CAiSE2016)*, volume 8484 of *LNCS*, pages 457–472. Springer, 2016.

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Michael Fisher and Chiara Ghidini. The abc of rational agent modelling. In *Proceedings of the first international joint conference on autonomous agents and multiagent systems (AAMAS02)*, pages 849–856, Bologna, Italy, July 2002.

Michael Fisher and Chiara Ghidini. Programming Resource-Bounded Deliberative Agents. In *Proceedings of the Sixteenth International Joint Conference on Artificial Intelligence (IJCAI'99)*, pages 200–205, Stockholm, 31 July – 6 August 1999. Morgan Kaufmann Publ., Inc.

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## Programme committee Membership

- 2024 36th International Conference on Advanced Information Systems Engineering (CAiSE 2024).
- 2023 21st Int. Conf. on Business Process Management (BPM 2023). Senior Programme Committee Member.  
13th International Conference on Formal Ontologies in Information Systems (FOIS 2023).  
35th International Conference on Advanced Information Systems Engineering (CAiSE 2023).  
22nd Int. Semantic Web Conf. (ISWC 2023). Senior Programme Committee Member.  
2nd International Workshop on Data-Driven Business Process Optimization.  
Workshop on Natural Language Processing for Business Process Management.
- 2022 20th Int. Conf. on Business Process Management (BPM 2022). Senior Programme Committee Member.  
21st International Conference of the Italian Association for Artificial Intelligence (AIxIA 2022).  
4th International Conference on Process Mining (ICPM 2022).  
PhD Symposium of the 19th Extended Semantic Web Conf. (ESWC 2022).  
1st Workshop on Natural Language Processing for Business Process Management.
- 2021 19th Int. Conf. on Business Process Management (BPM 2021). Senior Programme Committee Member.  
20th International Conference of the Italian Association for Artificial Intelligence (AIxIA 2021).  
12th Int. Conf. on Formal Ontology in Information Systems (FOIS 2021).  
3th International Conference on Process Mining (ICPM 2021).  
1st Italian forum on Business Process Management (ITBPM2021).

- 2020 19th International Conference of the Italian Association for Artificial Intelligence (AIxIA 2020).  
 Doctoral consortium of the 19th International Semantic Web Conference (ISWC 2020).  
 2020 International Conference on Artificial Intelligence in Medicine (AIME 2020).  
 Workshop on Artificial Intelligence for Business Process Management (AI4BPM).
- 2019 17th Int. Conf. on Business Process Management (BPM 2019)  
 28th Int. Joint Conf. on Artificial Intelligence (IJCAI 2019)  
 Workshop Security and Privacy-enhanced Business Process Management.  
 Workshop on Methods for Interpretation of Industrial Event Logs.  
 18th International Conference of the Italian Association for Artificial Intelligence (AIxIA 2019).  
 International Conference on Artificial Intelligence in Medicine (AIME 2019).  
 1st International Conference on Process Mining (ICPM 2019).
- 2018 16th Int. Conf. on Business Process Management (BPM 2018)  
 27th Int. Joint Conf. on Artificial Intelligence and 23rd European Conf. on Artificial Intelligence (IJCAIECAI 2018)  
 10th Int. Conf. on Formal Ontology in Information Systems (FOIS 2018)
- 2017 15th Int. Conf. on Business Process Management (BPM 2017)  
 31st AAAI Conf. on Artificial Intelligence (AAAI 2017)  
 16th Int. Conf. of the Italian Association for Artificial Intelligence (AI\*IA 2017)  
 European Semantic Web Conf. (ESWC 2017)  
 16th Int. Semantic Web Conf. ISWC 2017  
 Ninth Int. Conf. on Knowledge Capture (KCAP 2017)
- 2016 30th AAAI Conf. on Artificial Intelligence (AAAI 2016)  
 14th Int. Conf. on Business Process Management (BPM 2016)  
 20th Int. Conf. on Knowledge Engineering and Knowledge Management (EKAW 2016)  
 European Semantic Web Conf. (ESWC 2016)  
 9th Int. Conf. on Formal Ontology in Information Systems (FOIS 2016)  
 15th Int. Conf. on Principles of Knowledge Representation and Reasoning (KR 2016)  
 29th Int. Workshop on Description Logics (DL 2016)
- 2015 AAAI Conference on Artificial Intelligence (AAAI 2015)  
 ACM International Conference on Information and Knowledge Management (CIKM)  
 Ninth International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT 2015)  
 WebSci Track @WWW2015  
 Extended Semantic Web Conference (ESWC 2015)  
 28th International Workshop on Description Logics (DL 2015)  
 30th Convegno Italiano di Logica Computazionale (CILC 2015)
- 2014 Extended Semantic Web Conference (ESWC 2014)  
 8th International Conference on Formal Ontology in Information Systems (FOIS 2014)

- 29th Convegno Italiano di Logica Computazionale (CILC 2014)
- 2013 International Workshop on Acquisition, Representation and Reasoning with Contextualized Knowledge  
 CLIMA XIV (14th International Workshop on Computational Logic in Multi-Agent Systems)  
 8th International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT 2013)  
 Extended Semantic Web Conference (ESWC 2013)
- 2012 Twenty-Sixth AAI Conference on Artificial Intelligence (AAAI 2012)
- 2011 Extended Semantic Web Conference (ESWC 2011)  
 Senior Programme Committee Member of IJCAI 2011  
 12th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA-XII)  
 I-KNOW 2011 Conference on Knowledge Management, Professional Learning, and Knowledge Technologies  
 4th International Conference on Software Language Engineering (SLE 2011)  
 1st International Workshop on Machine Learning and Semantic Web Technologies (MLSW 2011)  
 9th European Workshop on Multi-agent Systems (EUMAS 2011)  
 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE 2011).
- 2010 14th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2010)  
 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE 2010)  
 2nd International Workshop on Context, Information and Ontologies (CIAO 2010)  
 11th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA-XI)  
 19th European Conference on Artificial Intelligence (ECAI 2010)  
 PhD symposium of the Extended Semantic Web Conference (ESWC 2010)  
 8th European Workshop on Multi-agent Systems (EUMAS 2010)  
 2nd International Conference on Agents and Artificial Intelligence" (ICAART 2010)  
 Workshop on Logics for Resource-Bounded Agents (LRBA 2010)  
 Workshop on Modeling and Reasoning in Context (MRC 2010)  
 3rd International Conference on Software Language Engineering (SLE 2010)  
 5th European Starting AI Researcher Symposium (STAIRS 2010)
- 2009 18th International World Wide Web conference (WWW2009)  
 10th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA-X)  
 8th International Semantic Web Conference (ISWC 2009)  
 7h European Workshop on Multi-Agent Systems (EUMAS-2009)  
 IJCAI-09 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE 2009)
- 2008 7th International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS'08)

- 6th European Workshop on Multi-Agent Systems(EUMAS'08)
- 9th International Workshop on Computational Logic in Multi-Agent Systems (CLIMA-IX)
- 7th Semantic Web Conference (ISWC'08)
- 13th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA'08)
- ESWC Workshop on Ontologies: Reasoning and Modularity (WORM 2008)
- HCP Workshop on Modelling and Reasoning in Context (MCR 2008)
- 2007 5th European Workshop on Multi-Agent Systems (EUMAS-2007)
- 6th International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT'07)
- 6th International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS'07)
- 17th International Workshop on Agent-Oriented Information Systems (AOIS-2007)
- 20th Australian Joint Conference on Artificial Intelligence (AI-2007)
- 2nd International Workshop on Modular Ontologies (WoMo 2007)
- 2006 4th European Workshop on Multi-Agent Systems (EUMAS 2006)
- Innovations in Information Technology (IIT 2006)
- 1st International Workshop on Modular Ontologies (WoMO 2006)
- 33rd International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2006)
- Workshop on logics for resource bounded agents (LRBA 2006)
- 5th International Workshop on Software Engineering for Large-scale Multi-Agent Systems (SELMAS 2006)
- 8th International Bi-Conference Workshop on Agent-Oriented Information Systems (AOIS-2006)
- 5th International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS'06)
- 1st Workshop on Software Engineering for Agent-oriented Systems (SEAS 2005)
- 2005 2nd International Workshop on Peer-to-Peer Knowledge Management (P2PKM 2005)
- 7th International Bi-Conference Workshop on Agent-Oriented Information Systems (AOIS-2005)
- 4th International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS'05)
- International Workshop on Context Representation and Reasoning (CRR'05)
- AAAI Fall Symposium on Agents and the Semantic Web (ASW05)
- AAMAS'05 Workshop on Formal Models of Resource Bounded Agents (FMRBA'05)
- 5th International Conference on Modeling and Using Context (Context-05)
- 4th International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-05)
- 2004 1st International Workshop on Peer-to-Peer Knowledge Management (P2PKM 2004)
- 3rd International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-04)

- 2001 3rd International Conference on Modeling and Using Context (Context-01) Dundee, July 27-30, 2001.
- 2000 KR-2000 Workshop on Semantic Approximation, Granularity, and Vagueness.

## Student supervision

- 1/11/2022 – current Co-Supervisor (together with Chiara di Francescomarino) of Francesca Meneghello, XXXVIII PhD Cycle - National AI PhD program, Sapienza University of Rome. PhD topic: *Combining Simulation and Machine Learning*.
- 1/11/2021 – current Supervisor (together with Chiara di Francescomarino) of Andrei Buliga, XXXVII PhD Cycle - PhD program in Computer Science, Free University of Bozen Bolzano. PhD topic: *Explainable Predictive Process Monitoring*.
- 1/11/2019 – current Co-supervisor (together with Mauro Dragoni) of Patrizio Bellan, XXXV PhD Cycle - PhD program in Computer Science, Free University of Bozen Bolzano PhD topic: *Process Extraction from text*.
- 1/11/2018 – 04/2023 Supervisor (together with Chiara di Francescomarino and Fabrizio Maria Maggi) of Williams Rizzi, XXXIV PhD Cycle - PhD program in Computer Science, Free University of Bozen Bolzano. PhD Thesis title: “Making Predictive Process Monitoring useful: insights from different perspectives”.
- 1/11/2017- current PhD Co-supervisor (together with Chiara Di Francescomarino) of Greta Adamo, XXXII PhD Cycle - PhD program in Computer Science and Systems Engineering, University of di Genova. PhD topic: *Ontological analysis of Business Process Modeling Languages*
- 1/11/2012-9/2018 PhD co-supervisor (together with Marco Rospocher) of Giulio Petrucci, XXIX PhD Cycle - ICT International Doctoral School, University of Trento. Current PhD project title: “Extracting expressive ontologies from text”.
- 1/11/2011-4/2015 PhD co-supervisor (together with Nicola Guarino) of Alessander Botti Benevides, XXVII PhD Cycle - ICT International Doctoral School, University of Trento. Title of the thesis: “From states to objects and events through stratification: A formal account and an application to data analytics”.
- 1/11/2010-4/2014 PhD supervisor of Muhammad Tahir Khan, XXVI PhD Cycle - ICT International Doctoral School, University of Trento. Title of the thesis: “Involving Domain Experts in the construction of OWL ontologies: experience oriented and tool base support for template-based modelling and knowledge reuse”.
- 9/2001 - 4/2003 PhD co-supervisor (together with Michael Fisher) of Benjamin Hirsh. PhD project title: “Programming Rational Agents”.
- 9/2002 - 4/2003 PhD co-supervision (together with Michael Fisher) of Nivea de Carvalho Ferreira. PhD project title: “Programming agents dealing with uncertain information”.
- Internship and Master Students within a Erasmus project in collaboration with the University of Tartu, Estonia: Anton Yeshchenko, Kerwin Jorbina, Kaur Jarvpold, Vasily Skydaniienko, Joonas Puura, University of Tartu, Estonia
- Internship and Bachelor’s Thesis Students: Cosimo Damiano Persia, Luca Simonetto, University of Trento, Italy
- Internship and Master’s Thesis Students: Musawar Saeed, Erinda Janupai, Valerio di Bernardo, Mattia Fracaro, University of Trento, Italy
- 9/2002 - 4/2003 Honors students: L. Ager, J. Byrne, Y. Chen, M. Key, K.O. Li, Y. Navavati, S. Wedd. University of Liverpool, UK
- 9/2001 - 5/2002 Honors students: R. Chettiar, W. Costello, N. Davis, J. Gohil, A.E. Salter, A.M. Unsworth. University of Liverpool, UK



6/2002 - 9/2002 MSc student: S. Singh. University of Liverpool, Liverpool, UK