

Curriculum Vitae

Full Prof. Fabrizio Maria Maggi

February 2026

Research Indicators

Google Scholar Metrics overview:
Citations: 13701 - h-index: 58 - i10-index: 158

Employment History

February 2026 – present

Full Professor, Faculty of Engineering, Free University of Bozen-Bolzano, Italy.

Research:

- Publication of the book; C. Di Francescomarino, I. Donadello, F. M. Maggi, **Predictive Process Monitoring** (Springer)

Teaching:

- Lecturer for “Information Security” course, Free University of Bozen-Bolzano
- Lecturer for “Management of System Security and Networks” course, Free University of Bozen-Bolzano
- **Responsible of the CyberChallenge.IT 2026 initiative in Bolzano**

March 2020 – January 2026

Associate Professor, Faculty of Engineering, Free University of Bozen-Bolzano, Italy.

Research:

- 42 conference (full) papers, 31 journal papers
- Invited talk entitled “Declarative Process Mining Meets Industry. The Declare4Py Case” presented at the ML4PM Workshop at ICPM 2023, Rome, Italy
- Keynote entitled “AI meets process mining: A concrete initiative to move from theory to practice” presented at the AAAI-Bridge on AI and BPM (<https://ai4bpm.com/>).

- Keynote entitled “Rule Mining with RuM”, presented at the 9th International Workshop on New Frontiers on Mining Complex Patterns @ ECML-PKDD 2020

Teaching:

- Lecturer for the PhD course “AI-augmented Process Management and Mining”, Sapienza University of Rome, Italy
- Lecturer for “Information Security” course, Free University of Bozen-Bolzano
- Lecturer for “Management of System Security and Networks” course, Free University of Bozen-Bolzano
- **Responsible of the CyberChallenge.IT 2023 initiative in Bolzano**
- **Responsible of the CyberChallenge.IT 2024 initiative in Bolzano**
- **Responsible of the CyberChallenge.IT 2025 initiative in Bolzano**

January 2019 – February 2019

Visiting Professor, Department of Engineering, Sapienza University of Rome, Italy.

Teaching:

- Lecturer for the PhD course “Achieving Business Process Intelligence through Process Mining”, Sapienza University of Rome, Italy

August 2017 – February 2020

Associate Professor, Institute of Computer Science, University of Tartu, Estonia.

Research:

- 1 book chapter, 26 conference (full) papers, 12 journal papers

Teaching:

- Lecturer for “Systems Modelling” course, University of Tartu, Estonia
- Lecturer for “Business Process Management” course, University of Tartu, Estonia
- Lecturer for “Seminar on Enterprise Software” course, University of Tartu, Estonia
- Lecturer for the PhD course “Process Mining: Improving Business Processes through Event Log Analysis”, Sapienza University of Rome, Italy

June 2014 – July 2017

Senior Researcher, Institute of Computer Science, University of Tartu, Estonia.

Research:

- 2 book chapters, 28 conference (full) papers, 11 journal papers
- Invitation to give a talk at Vienna University of Economics and Business, Austria
- Invitation to give a talk at Sapienza University of Rome, Italy
- **Researcher of the year award 2015 (University of Tartu)**

Teaching:

- Lecturer for “Systems Modelling” course, University of Tartu, Estonia
- Lecturer for “Business Process Management” course, University of Tartu, Estonia
- Lecturer for “Business Process Management” course, University of Tartu, Estonia

-

January 2013 – May 2014

Research fellow, Institute of Computer Science, University of Tartu, Estonia.

Research:

- 13 conference (full) papers, 2 journal papers
- Invitation to give a talk at Estonian Theory Days in Otepää, Estonia

- Invitation to give a talk at Fondazione Bruno Kessler in Trento, Italy
- Invitation to give a talk at University of Padua, Italy

Teaching:

- Lecturer for “Systems Modelling” course, University of Tartu, Estonia
- Lecturer for “Business Process Management” course, University of Tartu, Estonia

March 2010 – December 2012

Post-doc, Department of Mathematics and Computer Science, TU/e University of Technology, Eindhoven, The Netherlands.

Research:

- 1 book chapter, 26 conference (full) papers, 2 journal papers
- Invitation to give a talk at Free University of Bozen-Bolzano, Italy
- Invitation to give a talk at University of Luebeck, Germany
- Invitation to give a talk at KSRI Speaker Series in Karlsruhe, Germany

Teaching:

- Tutorial assistant for “Metamodelling and Interoperability” course, TU/e Eindhoven, The Netherlands

March 2009 – November 2009

Visiting PhD student, Department of Computing, Imperial College, London.

Research:

- 1 conference paper

January 2007 – May 2010

PhD student, Department of Computer Science, University of Bari, Italy. **Awarded a National Research Fellowship from the University of Bari, Italy, to fund the three years of PhD.** Research subject: definition and experimentation of methods, techniques and technologies to model, measure and optimize processes. In particular the research activity concerns: context-aware process modelling, process automation through Service Oriented Architectures, and process adaptation from event logs. Activities and achievements during this period have included:

Research:

- 2 book chapters, 6 conference (full) papers
- Supervision of industrial research programmers
- Invitation to give a talk at “4th National Workshop GIIS”, Como, Italy

Teaching:

- Tutorial assistant for “Process and Quality Models” course, University of Bari, Italy
- Tutorial assistant for “Models for Software Evaluation and Improvement” course, University of Bari, Italy
- Tutorial assistant for “Experimental Methods in Software Development” course, University of Bari, Italy
- Tutorial assistant for “Software Engineering” course, University of Bari, Italy
- Lecturer for “Introduction to the Technological Innovation Process and Business Processes” (Training course), University of Bari, Italy
- Lecturer for “Process Technologies” (Training course), Exprivia SPA, Italy
- Lecturer for “Process Modelling and supporting tools” (Training course), Data Service SPA, Italy

July 2006 – December 2006

Research Assistant, Department of Computer Science, University of Bari, Italy. Activities and achievements during this period have included:

Research:

- Supervision of industrial research programmers

Teaching:

- “Process Modelling and supporting tools” (Training course), Cartesio SPA

October 2005 – June 2006

Research Assistant, Department of Engineering, University of Sannio, Italy.

Higher Education/Qualifications

November 2020

National Scientific Qualification for the Full Professor position in Computer Science 01/B1.

November 2020

National Scientific Qualification for the Full Professor position in Information Processing Systems 09/H1.

May 2010

PhD in Computer Science, Department of Computer Science, University of Bari, Italy. PhD thesis entitled: “Process Modelling, Implementation and Improvement”.

October 2005

Master in "Software Technologies and Management" with distinction (Grade 110/110 cum laude), Department of Engineering, University of Sannio, Italy. Master project entitled: “Runtime discovery and late-binding of web services”. **Best student out of a class of 30 (selected after a preliminary competition).**

June 2004

Master in Teaching, Department of Mathematics, University “Federico II” of Naples, Italy. Grade 80/80.

October 2001

Laurea in Matematica, First Class Honours degree with Distinction (Grade 110/110 cum laude), Department of Mathematics, University “Federico II” of Naples, Italy. Undergraduate dissertation entitled: “Analysis and implementation of a numerical method for the real reversal of the Laplace transformation”.

Occupational skills and competences

- Programming languages: Java, C, SQL, R, Python
- Markup languages: XML
- Good experience on use of Java Web Services, WSDL, BPEL, Apache Tomcat, ActiveBPEL
- Distributed Systems, Middleware, Enterprise Application: Java RMI, EJB (J2EE), SERVLET, JSP
- Good Experience on use of Process Modelling Languages (Petri nets, BPMN, UML ADs, EPCs, BPEL, YAWL, Declare)
- BPM tools: Signavio, Bizagi, Bonita
- Process Mining tools: Celonis, Disco, Minit, MyInvenio, ProM, Apromore
- Database design, SQL, JDBC
- Requirements Analysis and Design Process with UML
- Software Testing with JUnit
- Acquaintance of Javascript
- Good experience on use of Eclipse tool.
- Operating systems: Windows, Linux
- Organization and business management: Organizational planning; Project Management, Strategic Management and Business Plan, Human Resource Management
- Sociology, Psychology, Pedagogy, Teaching methods

I am an expert ProM developer. ProM is the main scientific platform for the implementation of process mining algorithms (implemented in Java). I have developed more than 20 plug-ins in ProM implementing techniques ranging from process discovery to conformance checking to online analysis of log data (e.g., compliance and predictive monitoring of business processes). The most well-known plug-ins I have developed in ProM are the DeclareMiner, the DeclareChecker and MobiConLTL. Some of these plug-ins are described in the demo paper:

F. M. Maggi, **Declarative Process Mining with the Declare Component of ProM**, Proceedings of the Demo Track of the 11th Conference on Business Process Management 2013, Beijing, China

I am one of the authors of the process mining Manifesto published in 2011 and one of the members of the team responsible for the Italian translation of the Manifesto published in:

W. M. P. van der Aalst, A. Burattin, M. de Leoni, A. Guzzo, F. M. Maggi, M. Montali, **Process Mining: come estrarre conoscenza dai log dei sistemi informativi orientati ai processi**, Mondo Digitale – AICA, ANNO XI - N.43 - Settembre 2012.

I am one of the developers of Nirdizati, a web application for predictive process monitoring (implemented in Python):

<http://nirdizati.org/>

I am one of the developers of RuM, a java application for declarative process mining:

<http://rulemining.org/>

Teaching Experience

Teaching Statement

I have had a variety of enjoyable and interesting experiences in teaching. At the University of Bari I was tutorial assistant in different courses like “Software Engineering”, “Process and Quality Models”, “Experimental Methods in Software Development”.

At TU/e University of Technology, Eindhoven, I have been tutorial assistant for the “Metamodelling and Interoperability” course. I have discussed with students the differences between imperative and declarative approaches in process modelling. In particular, I have introduced them to Declare, a declarative language for process modelling. Moreover, during this course, I have taken care of everything related to an assignment given to students as a part of the final exam (definition of the assignment, tutoring and marking).

At the University of Tartu, I have been lecturing the “Systems Modelling” course. This course was part of the Software Engineering curriculum and provides skills in UML modelling, Petri nets and State Charts. I have also lectured the “Business Process Management” course. This course included process modelling with BPMN, qualitative and quantitative process analysis and process mining. In the last year I have been teaching a seminar where students learn to write a master thesis. In particular, the seminar was focused on how to do a literature review and how to plan an experimentation.

At the Free University of Bozen-Bolzano I am lecturing information security courses to Bachelor students in the computer science and business informatics curricula. I have organized and coordinated the CyberChallenge.IT 2023 initiative in Bolzano. I am currently organizing and coordinating the CyberChallenge.IT 2024 initiative.

I have been lecturer for two PhD courses on process mining at La Sapienza University of Rome.

In 2025, I received an official recognition of excellent teaching quality from the Course Council of the Bachelor's program in Informatics and Management of Digital Business at the Faculty of Engineering of the Free University of Bozen-Bolzano.

Committee Memberships

2024	Committee member of the PhD thesis defence of Alexander Stevens (KU Leuven)
2022	Committee member of cycle 33th of “Dottorato in Ingegneria Informatica” (La Sapienza)
2020	Committee member of the PhD thesis defence of Greta Adamo (FBK)
2018	Committee member of the PhD thesis defence of Mahdi Alizadeh (TU/e)

Supervision

PhD Student Supervision

2025-Present	Supervision of the PhD project of Axel Mezini
2024-Present	Supervision of the PhD project of Paul Hermann Wittlinger
2020-Present	Supervision of the PhD project of Anti Alman
2021-2023	Supervision of the PhD project of Andrei Buliga

2019-2023	Supervision of the PhD project of Williams Rizzi
2017-2022	Supervision of the PhD project of Volodymyr Leno
2014-2019	Supervision of the PhD project of Ilya Verenich
2014-2019	Supervision of the PhD project of Irene Teinemaa

Bachelor's and Master's thesis Supervision

2024- 2025	Supervision of 2 Master's project (Tedi Ibershimi, Axel Mezini) Supervision of 10 Bachelor's projects (Irene Avezzù, Matteo Bonani, Ilaria Brescia, Edoardo Comizzoli, Matteo Larcher, Isac Lorenzon, Ivana Nworah Bortot, Fabian Thoeni, Manuel Villotti)
2023- 2024	Supervision of 3 Bachelor's projects (Melany Brianese, Alice Frezza, Matteo Zorzi)
2022- 2023	Supervision of 1 Bachelor's project (Linda Maria Pircher)
2021- 2022	Supervision of 1 Master's project (Timothy Iyanoluwa Fadayini) Supervision of 5 Bachelor's projects (Martina Burlando, Tedi Ibershimi, Axel Mezini, Manpreet Singh)
2020- 2021	Supervision of 2 Master's projects (Lekso Migriauli, Sabuhi Yusifov) Supervision of 2 Bachelor's projects (Kaspar Kadalipp, Marcus Murumäe)
2019- 2020	Supervision of 6 Master's projects (Anti Alman, Karl-Kristjan Kokk, Musabir Musabayli, Aladdin Shikhizada, Fodio Tureta) Supervision of 1 Bachelor's projects (Karl Johannes Balder)
2018- 2019	Supervision of 4 Master's projects (Yevhen Dorodnikov, Denizalp Kapıszız, Joonas Puura, Clive Tinashe Mawoko)
2017- 2018	Supervision of 4 Master's projects (Geraldine Granada, Kaur Järvpöld, Tõnis Kasekamp, Vasyl Skydanienko)
2016- 2017	Supervision of 10 Master's projects (Ilia Aptsiauri, Etibar Hasanov, Ijlal Hussain, Kerwin Jorbina, Cigin Koshy, Arne Lapõnin, Karli Oruste, Kostiantyn Popov, Allar Soo, Anton Yeshchenko)
2015-2016	Supervision of 2 Master's projects (Khachatur Hambardzumyan, Juraj Jarábek)
2014-2015	Supervision of 2 Master's projects (Pätris Halapuu, Bogdan Semiletko) Supervision of 2 Bachelor's projects (Taavi Kala, Tõnis Kasekamp)
2013-2014	Supervision of 1 Master's project (Margus Räim)
2012-2013	Supervision of 1 Master's project (Jevgeni Martjušev)
2010-2011	Supervision of 1 Master's project (Dennis Schunselaar)
2008-2009	Supervision of 1 Master's project Supervision of 2 Bachelor's projects
2007-2008	Supervision of 1 Bachelor's project
2006-2007	Supervision of 1 Master's project Supervision of 1 Bachelor's project

Courses Taught

PhD Courses

2024	Lecturer for the PhD course “AI-augmented Process Management and Mining”, Sapienza University of Rome, Italy
2019	Lecturer for the PhD course “Achieving Business Process Intelligence through Process Mining”, Sapienza University of Rome, Italy
2017	Lecturer for the PhD course “Process Mining: Improving Business Processes through Event Log Analysis”, Sapienza University of Rome, Italy

Bachelor's and Master's Courses

2025-2026	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2024-2025	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2023-2024	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2022-2023	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course on “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2021-2022	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course on “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2020-2021	Coordinator and Responsible for 3 rd year course on “Information Security” (Bachelor in Computer Science) Coordinator and Responsible for 2 nd year course “Management of System Security and Networks” (Bachelor in Informatics and Management of Digital Business)
2019-2020	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering)

	Coordinator and Responsible for 2 nd year “Seminar on Enterprise Software” (Master in Software Engineering)
2018-2019	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering) Coordinator and Responsible for 2 nd year “Seminar on Enterprise Software” (Master in Software Engineering)
2017-2018	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering) Coordinator and Responsible for 2 nd year “Seminar on Enterprise Software” (Master in Software Engineering)
2016-2017	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering)
2015-2016	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering)
2014-2015	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering)
2013-2014	Coordinator and Responsible for 1 st year course on “Systems Modelling” (Master in Software Engineering) Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering)
2012-2013	Lecturer for 1 st year course on “Business Process Management” (Master in Software Engineering)

Tutorial Assistance

2011-2012	Ran tutorials and marking for 5 th year course on “Metamodelling and Interoperability”.
2010-2011	Ran tutorials and marking for 5 th year course on “Metamodelling and Interoperability”.
2008-2009	Ran tutorials and marking for 3 rd year courses on “Process and Quality Models”, and “Models for Software Evaluation and Improvement”.
2008-2009	Ran tutorials and marking for a 1st year course on “Experimental Methods in Software Development”.
2008-2009	Ran tutorials for a 1 st year course on “Software Engineering”.

2007-2008 Ran tutorials and marking for 3rd year courses on “Process and Quality Models”, and “Models for Software Evaluation and Improvement”.

Training Courses

2008 “Introduction to the Technological Innovation Process and Business Processes”, University of Bari, Italy
2007 “Process Modelling and supporting tools”, Data Service SPA, Italy
2007 “Process Technologies”, Exprivia SPA, Italy
2006 “Process Modelling and supporting tools”, Cartesio SPA, Italy

Other Academic Responsibilities

- **July 2025:** Organizer of the AI for Process Mining event, Faculty of Engineering, Free University of Bozen-Bolzano.
- **May 2025:** Organizer of the Grant Thornton seminar “Cyber Defence Ecosystem”, Faculty of Engineering, Free University of Bozen-Bolzano.
- **April 2025:** Organizer of the CISO 27001 event at the Free University of Bozen-Bolzano.
- **February 2025:** Speaker of the seminar “Come aggiungere un malware di tipo reverse TCP in una Macro di Office Word” at the UNIBZ STEM School (for high school students).
- **December 2024:** Organizer of the Datalane seminar “Unlocking Business Insights with Process Mining: A deep dive into Microsoft Power Automate Process Mining”, DISI, University of Trento.
- **December 2024:** Organizer of the Grant Thornton seminar “Success Story of an Italian Cyber Startup”, Faculty of Engineering, Free University of Bozen-Bolzano.
- **December 2024:** Organizer of the Grant Thornton seminar “IT Risk Management – Theory and Practice”, Faculty of Engineering, Free University of Bozen-Bolzano.
- **2023 – present:** Responsible of the CyberChallenge.IT initiative in Bolzano.
- **2020 – present:** Member of the Faculty Council and PhD Council, Faculty of Engineering, Free University of Bozen-Bolzano.
- **2022:** I have been General Chair of EDOC 2022, the 26th conference on Enterprise Computing.
- **September 2018 – December 2019:** Erasmus Coordinator, Institute of Computer Science, University of Tartu, Estonia.
- **Since 2017:** Chair of the AI4BPM workshop on Artificial Intelligence for Business Process Management co-located with the BPM conference.
- **2013, 2014, 2015, 2016:** Chair of the Special Session on Process Mining at the IEEE Conference on Computational Intelligence and Data Mining (CIDM).

Research Experience

Research Statement

My PhD focused on the definition and application of techniques for supporting companies to model, implement, monitor and continuously improve their business processes. The results achieved during my PhD contributed to solve three main issues (i) customization of process models for different user requirements and environmental peculiarities; (ii) translation of abstract process models defined by domain experts into executable processes, and (iii) model repair using event logs to resolve discrepancies between existing abstract process models and their executions.

My postdoctoral research at TU/e focused on declarative process mining as an alternative to traditional imperative discovery techniques, which often produce overly complex models and offer limited guidance toward specific properties. Declarative models describe behavior as a compact set of rules and allow the discovery process to be steered toward relevant constraints. I implemented these techniques in ProM using the Declare language. I also developed a runtime verification framework for declarative models based on colored automata, enabling continuous compliance checking and meaningful diagnostics even after constraint violations. The framework supports recovery after violations and detects both individual and conflicting constraints, providing real-time, actionable insights through a ProM-based toolset.

At the University of Tartu, my research extended the declarative process mining techniques developed in Eindhoven by incorporating the data perspective and supporting a broader class of constraints beyond those provided by Declare. I also worked on deviance mining and predictive monitoring, which exploit process execution logs to help stakeholders steer processes toward compliant, consistent, and high-performance outcomes. Deviance mining analyzes logs offline to identify and characterize executions that lead to better or worse performance, while predictive monitoring focuses on runtime prediction of process outcomes.

At the Free University of Bozen-Bolzano, my current research focuses on Neuro-symbolic Predictive Process Monitoring and AI-augmented Business Process Management. In neuro-symbolic predictive process monitoring, I study approaches that combine patterns learned from execution data with symbolic domain knowledge in order to adapt and correct predictions in the presence of exceptional executions and concept drift, where purely data-driven models tend to fail. The integration of symbolic knowledge enables more accurate, explainable, and controllable predictions during runtime. In addition, my recent research on AI-augmented Business Process Management addresses the semi-autonomous execution of business processes based on a unifying framework of heterogeneous constraints of different nature (e.g., control-flow, data, temporal, organizational). Within this framework, AI techniques are used to support and automate decision-making while keeping humans in the loop, ensuring adaptability, and alignment with organizational goals.

Transfer Statement

My research includes the application of automata theory and LTL-based modeling languages to declarative process mining, spanning the full lifecycle from model discovery from execution logs to runtime monitoring of event streams generated by one or multiple process instances. I have been among the pioneers in this area, contributing algorithms and techniques that enable the verification of process executions against sets of declarative (LTL) constraints. This line of research is particularly relevant for domains such as healthcare, where process behavior is highly variable, data is often unstructured, and compliance is better captured through declarative rules derived from guidelines. A key focus of my work is the transfer of theoretical results into practice. To this end, I am actively involved in the development of RuM, a reference open-source tool for declarative process mining, which serves as a foundation for experimentation, industrial adoption, and technology transfer. I also maintain strong collaborations with industry, including work with the process mining company DataLane and the presentation of the tutorial “Declarative Process Mining Meets Industry: The

Declare4Py Case” at ICPM 2023, highlighting the growing industrial relevance of declarative approaches.

In parallel, I investigate machine-learning–based process mining techniques for anomaly detection, deviance analysis, and predictive process monitoring, aimed at guiding stakeholders toward compliant, consistent, and high-performance process execution. This research is supported by international collaborations (e.g., the Nirdizati initiative), funded projects in which I act as principal investigator, and applied research with industrial partners to promote the adoption of predictive techniques in real organizational settings, including small and medium-sized manufacturing enterprises. As a recent development of this research line, I am contributing to NeSy4PPM, a Python library for neurosymbolic predictive process monitoring that integrates symbolic process knowledge with data-driven models to improve robustness, interpretability, and adaptation in the presence of exceptional behavior and concept drift.

Research Activities in Research Projects

2025 – present

Principal Investigator, Artificial Intelligence for Processes in Healthcare (AIProHealth), PRIN – 2022 call.

Development of artificial intelligence techniques for supporting healthcare processes using process data analysis.

2023 – 2025

Principal Investigator, Recommender Systems for Sustainable Processes (ReSS-Pro), funded by Fondazione Cariverona.

Development of techniques for Recommender Systems supporting the sustainability of business processes.

2021 – 2024

Principal Investigator, Prescriptive Support when Monitoring Processes Aware Systems (PRISMA), Faculty of Engineering, Free University of Bozen-Bolzano, Italy.

Development of techniques for Process-Aware Recommender Systems providing recommendations to users during the execution of business processes.

2020 – 2023

Principal Investigator, Continuous process Auditing Technology (CAT) Start-up fund, Faculty of Engineering, Free University of Bozen-Bolzano, Italy.

Application of process mining techniques to enterprise auditing.

2019 – 2020

Principal Investigator, Prescriptive Monitoring of Business Processes (PRG887) project, Institute of Computer Science, University of Tartu, Estonia.

Implementation and experimentation of Process-Oriented Recommender Systems.

2019 – 2020

Senior Investigator, ERC Advanced Grant (PI: Marlon Dumas), The Process Improvement Explorer: Automated Discovery and Assessment of Business Process Improvement Opportunities.

Use of Machine learning techniques for predictive and prescriptive monitoring of business processes. Robotic Process Automation with Process Mining.

January 2016 – December 2019

Theme Leader, Estonian Center of Excellence in ICT Research (TK148), Institute of Computer Science, University of Tartu, Estonia.

Collaboration with three co-PIs in the fields of compliance monitoring, deviance analysis in business processes, and DMN decision tables to support decision making in business process executions.

January 2014 – December 2019

Theme Leader, Data-Driven Management of Software and Business Processes (IUT20-55), Institute of Computer Science, University of Tartu, Estonia.

Implementation and experimentation of techniques for data-aware declarative process mining. Development of techniques for predictive and prescriptive process monitoring.

September 2017 – October 2018

WP Leader, “Go-Swift” project, Institute of Computer Science, University of Tartu, Estonia.

Use of predictive process monitoring and deviance mining techniques to support a system to manage border crossings. The project was financially supported by the EU’s European Regional Development Fund, within the program “Support for Applied Research in Smart Specialization Growth Areas”, and the objective “Information and communication technology (ICT) horizontally through other sectors”.

March 2010 – December 2012

Post-doc, “Poseidon” project, Department of Mathematics and Computer Science, TU/e University of Technology, Eindhoven, the Netherlands.

Evaluation of the health of systems of systems through declarative process mining and run-time monitoring. The Poseidon project was a collaborative research project coordinated by the Embedded Systems Institute at Eindhoven University of Technology. Working with the industrial partner Thales, its aim was to discover new ways to build dynamic information-

centric systems-of systems, deriving its research statement from the maritime safety and security domain.

September 2008 – February 2010

Research Assistant, “Distributed Production as Innovative System” (DIPIS) project, Department of Computer Science, University of Bari.

Experimentation of a Process Oriented Developing paradigm.

January 2007 – February 2010

Research Supervisor, Industrial Research Project of Ser&Practices (spin-off of the University of Bari), Department of Computer Science, University of Bari.

Definition of an algorithm to translate a process model into BPEL. Design and development of a tool to translate a process model into an executable BPEL workflow.

January 2007 – February 2010

Research Supervisor, Industrial Research Project of Ser&Practices (spin-off of the University of Bari), Department of Computer Science, University of Bari.

Definition of a business processes knowledge base for a context-aware process modelling.

May 2007 – March 2009

Research Assistant, “Knowledge for Rapid Development and Maintenance” (CNOS) project, Exprivia SPA. Definition and first experimentation of the technologies developed in my PhD.

Main Program Committee and Conference Chair Memberships, Editorial Activities

- I have organized a special session on process mining at the IEEE Conference on Computational Intelligence and Data Mining (CIDM) 2013.
- I have been member of the program committee of the 17th IEEE Conference on Business Informatics (CBI 2013).
- I have been member of the program committee of the 19th IEEE Conference on Business Informatics (CBI 2014).
- I have been member of the program committee of the 1st International Symposium on Data-Driven Process Discovery and Analysis (SIMPDA 2014).
- I have organized a special session on process mining at the IEEE Conference on Computational Intelligence and Data Mining (CIDM) 2014.
- I have been member of the program committee of ICIMSA 2015 (International Conference on Information, Management Science and Applications).
- I have been member of the program committee of ICSOFT-EA 2015 (10th International Conference on Software Engineering and Applications).

- I have been member of the program committee of the 20th IEEE Conference on Business Informatics (CBI 2015).
- I have been Workshop Chair of 11st International Conference on Perspectives in Business Informatics Research (BIR 2015)
- I have been member of the program committee of the 2015 International Conference on Software and Systems Process (ICSSP 2015).
- I have been Proceedings Chair of the 2015 International Conference on Software and Systems Process (ICSSP 2015).
- I have organized a special session on process mining at the IEEE Conference on Computational Intelligence and Data Mining (CIDM) 2015.
- I have been member of the program committee of BPM 2016, the 11st International Conference on Business Process Management.
- I have been member of the program committee of ICSOFT-EA 2016 (11th International Conference on Software Engineering and Applications).
- I have been member of the program committee of the 2016 International Conference on Software and Systems Process (ICSSP 2016).
- I have been member of the program committee of the 6th International Symposium on Data-Driven Process Discovery and Analysis (SIMPDA 2016).
- I have been member of the program committee of the 20th IEEE Conference on Business Informatics (CBI 2016).
- I have organized the special session on process mining at the IEEE Conference on Computational Intelligence and Data Mining (CIDM) 2016.
- I have been Senior member of the program committee of BPM 2017, the 15th International Conference on Business Process Management.
- I have been Program Committee Chair of the 2017 International Conference on Software and Systems Process (ICSSP 2017).
- I have been member of the program committee of the 7th International Symposium on Data-Driven Process Discovery and Analysis (SIMPDA 2017).
- I have been Editor of Issue 6 of CSIMQ (Complex Systems Informatics and Modeling Quarterly) journal on Selected Topics on Business Informatics Research.
- I have organized the first BPM Workshop on Business Process Innovation with Artificial Intelligence (BPAI 2017).
- I have been member of the program committee of SAC 2017.
- I have organized the Special Session on Business Processes and Fuzzy Logic at the 2017 IEEE International Conference on Fuzzy Systems.
- I have been member of the program committee of the 2018 International Conference on Software and Systems Process (ICSSP 2018).
- I have been member of the program committee of the 8th International Symposium on Data-Driven Process Discovery and Analysis (SIMPDA 2018).
- I have been member of the program committee of SAC 2018, the 33rd ACM/SIGAPP Symposium On Applied Computing.
- I have been member of the program committee of the 20th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2018)
- I have been member of the program committee of CAiSE 2018, the 30th International Conference on Advanced Information Systems Engineering.
- I have been member of the program committee of BPM 2018, the 16th International Conference on Business Process Management.
- I have organized the second BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2018).
- I have been member of the program committee of BIS 2019, the 22nd International Conference on Business Information Systems.
- I have been member of the program committee of the 2019 International Conference on Software and Systems Process (ICSSP 2019).
- I have been member of the program committee of the 9th International Symposium on Data-Driven Process Discovery and Analysis (SIMPDA 2019).

- I have been member of the program committee of CAiSE 2019, the 31st International Conference on Advanced Information Systems Engineering.
- I have been Senior member of the program committee of BPM 2019, the 17th International Conference on Business Process Management.
- I have been guest Editor of the JSME special journal issue for ICSSP 2017.
- I have been guest Editor of the Special Issue “Business Process Innovations with Artificial Intelligence” in the Journal on Data Semantics.
- I have organized the third BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2019).
- I have been member of the ECMLPKDD 2019 Guest Editorial Board.
- I have been guest Editor of the Special Issue “Artificial Intelligence for Business Process Management – 2018” in the Journal on Data Semantics.
- I have been member of the program committee of ICPM 2019, the 1st International Conference on Process Mining.
- I have been member of the program committee of the 22nd International Conference on Knowledge Engineering and Knowledge Management (EKAW 2020)
- I have been member of the ECMLPKDD 2020 Guest Editorial Board.
- I have been member of the program committee of BIS 2020, the 23rd International Conference on Business Information Systems.
- I have been member of the program committee of the 2020 International Conference on Software and Systems Process (ICSSP 2020).
- I have been member of the program committee of CAiSE 2020, the 32nd International Conference on Advanced Information Systems Engineering.
- I have been Senior member of the program committee of BPM 2020, the 18th International Conference on Business Process Management.
- I have organized the fourth BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2020).
- I have been guest Editor of the Special Issue “Artificial Intelligence for Business Process Management – 2019” in the Journal on Data Semantics.
- I have been member of the program committee of ICPM 2020, the 2nd International Conference on Process Mining.
- I have been member of the program committee of the 2021 International Conference on Software and Systems Process (ICSSP 2021).
- I have been member of the program committee of CAiSE 2021, the 33rd International Conference on Advanced Information Systems Engineering.
- I have been Senior member of the program committee of BPM 2021, the 19th International Conference on Business Process Management.
- I have organized the fifth BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2021).
- I have been guest Editor of the Special Issue “Artificial Intelligence for Business Process Management – 2020” in the Progress in Artificial Intelligence journal.
- I have been Doctoral Consortium chair of BPM 2021, the 19th International Conference on Business Process Management.
- I have been member of the program committee of ICPM 2021, the 3rd International Conference on Process Mining.
- I have been Doctoral Consortium chair of ICPM 2021, the 3rd International Conference on Process Mining.
- I have been member of the program committee of the 2022 International Conference on Software and Systems Process (ICSSP 2022).
- I have been Senior member of the program committee of BPM 2022, the 20th International Conference on Business Process Management.
- I have organized the sixth BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2022).
- I have been guest Editor of the Special Issue “Artificial Intelligence for Business Process Management – 2021” in the Journal of Intelligent Information Systems.

- I have been member of the program committee of ICPM 2022, the 1st International Conference on Process Mining.
- I have been Demo chair of ICPM 2022, the 1st International Conference on Process Mining.
- I have been General Chair of EDOC 2022, the 26th conference on Enterprise Computing.
- I have been member of the program committee of the 2023 International Conference on Software and Systems Process (ICSSP 2023).
- I have been member of the program committee of ICPM 2023, the 5th International Conference on Process Mining.
- I have been Senior member of the program committee of BPM 2023, the 21st International Conference on Business Process Management.
- I have organized the seventh BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2023).
- I have been member of the program committee of CAiSE 2024, the 36th International Conference on Advanced Information Systems Engineering.
- I have been Senior member of the program committee of BPM 2024, the 22nd International Conference on Business Process Management
- I have been member of the program committee of ICPM 2024, the 6th International Conference on Process Mining.
- I have organized the eighth BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2024).
- I am member of the program committee of CAiSE 2025, the 37th International Conference on Advanced Information Systems Engineering.
- I am Senior member of the program committee of BPM 2025, the 23rd International Conference on Business Process Management
- I am member of the program committee of ICPM 2025, the 7th International Conference on Process Mining.
- I am organizing the 9th BPM Workshop on Artificial Intelligence for Business Process Management (AI4BPM 2025).
- I am Program Committee Chair of the Foundations Track of BPM 2026, the 21st International Conference on Business Process Management.
- Since 2025, I am Associate Editor of the IEEE Transactions on Service Computing.

Invited Talks

May 2025	“Process Mining and Cybersecurity”, Grant Thornton in the new Cyber era Workshop. Grant Thornton, Milan, Italy
October 2023	“Declarative Process Mining Meets Industry. The Declare4Py Case” – ML4PM Workshop at ICPM 2023, Rome, Italy
February 2023	“AI meets declarative process mining: A concrete initiative to move from theory to practice”, AAAI 2023 Bridge Program on Artificial Intelligence and Business Process Management. Washington DC, USA
September 2020	“Rule Mining with RuM”, keynote at 9th International Workshop on New Frontiers on Mining Complex Patterns @ ECML-PKDD 2020

February 2015	“Declarative Process Mining”, Vienna University of Economics and Business, Austria
July 2014	“Declarative Process Mining”, Sapienza University of Rome, Italy
May 2014	“Predictive Monitoring of Business Processes”, Estonian Theory Days in Narva, Estonia
November 2013	“Declarative process mining w/ ProM”, Dagstuhl Seminar “Unleashing Operational Process Mining”, Germany
November 2013	“Process discovery: Playing with the representational bias”, Dagstuhl Seminar “Unleashing Operational Process Mining”, Germany
November 2013	“Monitoring Business Constraints with the Event Calculus”, Dagstuhl Seminar “Unleashing Operational Process Mining”, Germany
June 2013	“Declarative Process Mining”, University of Padua, Italy
April 2013	“Declarative Process Mining”, Fondazione Bruno Kessler, Trento, Italy
February 2013	“Declarative Process Mining”, Estonian Theory Days in Otepää, Estonia
April 2012	“Compliance Monitoring”, KSRI Speaker Series in Karlsruhe, Germany
December 2011	“Runtime Verification of LTL-Based Declarative Process Models”, Department of Computer Science, University of Luebeck, Germany
October 2011	“Runtime Verification of LTL-Based Declarative Process Models”, Department of Computer Science, University of Bolzano, Italy
April 2008	“Process Oriented Development”, Department of Computer Science, University of Bari, Italy
September 2007	“Process Modelling, Measuring and Optimization”, “1st National Workshop GIIS”, Como, Italy

PUBLICATIONS

Referred Journal Publications

1. L. T. Ly, F. M. Maggi, M. Montali, S. Rinderle-Ma, W. M. P. van der Aalst, **Reflection on compliance monitoring in business processes: Functionalities, application, and tool-support.** Inf. Syst. 138: 102650 (2026). <https://doi.org/10.1016/j.is.2025.102650>
2. S. Agostinelli, F. De Luzzi, F. M. Maggi, A. Marrella, A. Volpi, **Design patterns for GDPR-aware process modeling in BPMN.** Inf. Syst. 137: 102646 (2026). <https://doi.org/10.1016/j.is.2025.102646>
3. G. Blasilli, L. S. Ferro, S. Lenti, F. M. Maggi, A. Marrella, T. Catarci, **Improving the understandability of declarative process discovery results using easyDeclare.** Inf. Syst. 138: 102667 (2026). <https://doi.org/10.1016/j.is.2025.102667>

4. A. Buliga, C. Di Francescomarino, C. Ghidini, I. Donadello, F. M. Maggi, **Guiding the generation of counterfactual explanations through temporal background knowledge for predictive process monitoring**, Data Min. Knowl. Discov. 39(5): 63, 2025. <https://doi.org/10.1007/S10618-025-01117-3>
5. I. Donadello, P. Felli, C. Innes, F. M. Maggi, M. Montali, **LTL-based conformance checking of fuzzy event logs**. Process Sci. 2(1) (2025). <https://doi.org/10.1007/s44311-025-00020-w>
6. F. M. Maggi, M. Montali, R. Peñaloza, **Probabilistic Temporal Reasoning Using Superposition Semantics**, ACM Trans. Comput. Log. 26(2): 9:1-9:26 (2025). <https://doi.org/10.1145/3714427>
7. G. Acitelli, A. Alman, F. M. Maggi, A. Marrella, **Achieving framed autonomy in AI-augmented business process management systems through automated planning**, Information Systems, Vol. 133, (2025). <https://doi.org/10.1016/j.is.2025.102573>
8. C. Di Francescomarino, I. Donadello, C. Ghidini, F. M. Maggi, J. Puura, **Business Process Deviance Mining with Sequential and Declarative Patterns**, Bus Inf Syst Eng (2025). <https://doi.org/10.1007/s12599-024-00911-5>
9. M. Comuzzi, J. Ko, F. M. Maggi, **A Language to Model and Simulate Data Quality Issues in Process Mining**, J. Data and Information Quality 17, 2, Article 6 (2025). <https://doi.org/10.1145/3743144>
10. A. Gianola, J. Ko, F. M. Maggi, M. Montali, S. Winkler, **Approximate conformance checking: Fast computation of multi-perspective, probabilistic alignments**, Inf. Syst. 129: 102510, 2025. <https://doi.org/10.1016/j.is.2024.102510>
11. W. Rizzi, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **Nirdizati: an advanced predictive process monitoring toolkit**. J. Intell. Inf. Syst. 63(1): 259-291, 2025. <https://doi.org/10.1016/j.is.2024.102383>
12. W. Rizzi, M. Comuzzi, C. Di Francescomarino, C. Ghidini, S. Lee, F. M. Maggi, Alexander Nolte, **Explainable predictive process monitoring: a user evaluation**. Process Sci. 1(1) (2024). <https://doi.org/10.1007/s44311-024-00003-3>
13. P. Ceravolo, M. Comuzzi, J. De Weerdt, C. Di Francescomarino, F. M. Maggi, **Predictive process monitoring: concepts, challenges, and future research directions**. Process Sci. 1(1) (2024). <https://doi.org/10.1007/s44311-024-00002-4>
14. S. J. J. Leemans, F. M. Maggi, M. Montali, **Enjoy the silence: Analysis of stochastic Petri nets with silent transitions**. Inf. Syst. 124: 102383, 2024. <https://doi.org/10.1016/j.is.2024.102383>

15. F. M. Maggi, A. Marrella, F. Patrizi, Vasyl Skydanienko, **Data-Aware Declarative Process Mining with SAT**, ACM Transactions on Intelligent Systems and Technology, 2023. <https://doi.org/10.1145/3600106>
16. I. Donadello, C. Di Francescomarino, F. M. Maggi, F. Ricci, A. Shikhizada, **Outcome-Oriented Prescriptive Process Monitoring based on Temporal Logic Patterns**, Eng. Appl. Artif. Intell. 126: 106899 (2023). <https://doi.org/10.1016/j.engappai.2023.106899>
17. A. Alman, F. M. Maggi, M. Montali, F. Patrizi, A. Rivkin, **A framework for modeling, executing, and monitoring hybrid multi-process specifications with bounded global-local memory**, Information Systems 119: 102271 (2023). <https://doi.org/10.1016/j.is.2023.102271>
18. A. Alman, F. M. Maggi, M. Montali, F. Patrizi, A. Rivkin, **Monitoring hybrid process specifications with conflict management: An automata-theoretic approach**, Artif. Intell. Medicine 139: 102512 (2023). <https://doi.org/10.1016/j.artmed.2023.102512>
19. S. Agostinelli, F. Chiariello, F. M. Maggi, A. Marrella, F. Patrizi, **Process mining meets model learning: Discovering deterministic finite state automata from event logs for business process analysis**, Information Systems 114: 102180 (2023). <https://doi.org/10.1016/j.is.2023.102180>
20. F. Chesani, C. Di Francescomarino, C. Ghidini, D. Loretì, F. M. Maggi, P. Mello, M. Montali, S. Tessaris, **Process discovery on deviant traces and other stranger things**, IEEE Transactions on Knowledge and Data Engineering, 2023. <https://doi.org/10.1109/TKDE.2022.3232207>
21. G. De Giacomo, R. De Masellis, F. M. Maggi, M. Montali, **Monitoring Constraints and Metaconstraints with Temporal Logics on Finite Traces**, ACM Transactions on Software Engineering and Methodology, 2022. <https://doi.org/10.1145/3506799>
22. A. Alman, F. M. Maggi, M. Montali, R. Peñaloza, **Probabilistic declarative process mining**, Inf. Syst. 109: 102033 (2022). <https://doi.org/10.1016/j.is.2022.102033>
23. V. Leno, A. Augusto, M. Dumas, M. La Rosa, F. M. Maggi, A. Polyvyanyy, **Discovering Data Transfer Routines from User Interaction Logs**, Information Systems, 2022. <https://doi.org/10.1016/j.is.2021.101916>
24. A. Cecconi, G. De Giacomo, C. Di Ciccio, F. M. Maggi, J. Mendling, **Measuring the Interestingness of Temporal Logic Behavioral Specifications in Process Mining**, Information Systems, 2022. <https://doi.org/10.1016/j.is.2021.101920>
25. M. L. Bernardi, M. Cimitile, F. M. Maggi, **Data-Aware Process Discovery for Malware Detection: An Empirical Study**, Machine Learning, 2022. <https://doi.org/10.1007/s10994-022-06154-3>

26. W. Rizzi, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **How do I update my model? On the resilience of Predictive Process Monitoring models to change**, Knowledge Information Systems, 2022. <https://doi.org/10.1007/s10115-022-01666-9>

27. J. Kim, M. Comuzzi, M. Dumas, F. M. Maggi, I. Teinemaa, **Encoding resource experience for predictive process monitoring**, Decision Support Systems, 2022. <https://doi.org/10.1016/j.dss.2021.113669>

28. S. A. Fahrenkrog-Petersen, N. Tax, I. Teinemaa, M. Dumas, M. de Leoni, F. M. Maggi, M. Weidlich, **Fire now, fire later: alarm-based systems for prescriptive process monitoring**, Knowledge Information Systems, 2022. <https://doi.org/10.1007/s10115-021-01633-w>

29. V. Leno, A. Polyvyanyy, M. Dumas, M. La Rosa, F. M. Maggi, **Robotic Process Mining: Vision and Challenges**, Business Information Systems Engineering, 2021. <https://doi.org/10.1007/s12599-020-00641-4>

30. G. Adamo, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **Beyond arrows in process models: A user study on activity dependences and their rationales**, Information Systems, 2021. <https://doi.org/10.1016/j.is.2021.101762>

31. F. Taymouri, M. La Rosa, M. Dumas, F. M. Maggi, **Business process variant analysis: Survey and classification**, Knowledge Based Systems 211: 106557, 2021. <https://doi.org/10.1016/j.knosys.2020.106557>

32. V. Leno, M. Dumas, F. M. Maggi, M. La Rosa, A. Polyvyanyy, **Automated discovery of declarative process models with correlated data conditions**, Information Systems, 2020. <https://doi.org/10.1016/j.is.2019.101482>

33. H. Nguyen, M. Dumas, A. H. M. ter Hofstede, M. La Rosa, F. M. Maggi, **Stage-based discovery of business process models from event logs**, Information Systems, 2019. <https://doi.org/10.1016/j.is.2019.05.002>

34. I. Verenich, M. Dumas, M. La Rosa, F. M. Maggi, I. Teinemaa, **Survey and Cross-benchmark Comparison of Remaining Time Prediction Methods in Business Process Monitoring**, ACM Transactions on Intelligent Systems and Technology, 2019. <https://doi.org/10.1145/3331449>

35. I. Teinemaa, M. Dumas, M. La Rosa, F. M. Maggi, **Outcome-Oriented Predictive Process Monitoring: Review and Benchmark**, ACM Transactions on Knowledge Discovery from Data, 2019. <https://doi.org/10.1145/3301300>

36. A. Senderovich, C. Di Francescomarino, F. M. Maggi, **From Knowledge-Driven to Data-Driven Inter-Case Feature Encoding in Predictive Process Monitoring**, Information Systems, 2019. <https://doi.org/10.1016/j.is.2019.01.007>

37. D. Calvanese, M. Dumas, F. M. Maggi, M. Montali, **Semantic DMN: Formalizing and Reasoning About Decisions in the Presence of Background Knowledge**, Theory and Practice of Logic Programming, 2018. <https://doi.org/10.1017/S1471068418000479>

38. A. Augusto, R. Conforti, M. Dumas, M. La Rosa, F. M. Maggi, A. Marrella, M. Mecella, A. Soo, **Automated Discovery of Process Models from Event Logs: Review and Benchmark**, IEEE Transactions on Knowledge and Data Engineering, 2018. <https://doi.org/10.1109/TKDE.2018.2841877>

39. I. Teinemaa, M. Dumas, A. Leontjeva, F. M. Maggi, **Temporal Stability in Predictive Process Monitoring**, Data Mining and Knowledge Discovery, 2018. <https://doi.org/10.1007/s10618-018-0575-9>

40. C. Di Francescomarino, M. Dumas, M. Federici, C. Ghidini, F. M. Maggi, W. Rizzi, L. Simonetto, **Genetic Algorithms for Hyperparameter Optimization in Predictive Business Process Monitoring**, Information Systems, 2018. <https://doi.org/10.1016/j.is.2018.01.003>

41. C. Di Ciccio, F. M. Maggi, M. Montali, J. Mendling, **On the Relevance of a Business Constraint to an Event Log**, Information Systems, 2018. <https://doi.org/10.1016/j.is.2018.01.011>

42. D. Calvanese, M. Dumas, Ü. Laurson, F. M. Maggi, M. Montali, I. Teinemaa, **Semantics, Analysis and Simplification of DMN Decision Tables**, Information Systems, 2018. <https://doi.org/10.1016/j.is.2018.01.010>

43. F. M. Maggi, C. Di Ciccio, C. Di Francescomarino, T. Kala, **Parallel algorithms for the automated discovery of declarative process models**, Information Systems, 2018. <https://doi.org/10.1016/j.is.2017.12.002>

44. A. Jalali, F. M. Maggi, H. Reijers, **A Hybrid Approach for Aspect-Oriented Business Process Modeling**, Journal of Software: Evolution and Process 2017 <https://doi.org/10.1002/smr.1931>

45. C. Di Francescomarino, M. Dumas, F. M. Maggi, I. Teinemaa, **Clustering-Based Predictive Process Monitoring**, IEEE Transactions on Service Computing, 2017. <https://doi.org/10.1109/TSC.2016.2645153>

46. C. Di Ciccio, F. M. Maggi, M. Montali, J. Mendling, **Resolving inconsistencies and redundancies in declarative process models**, Information Systems, 2017. <https://doi.org/10.1016/j.is.2016.09.005>

47. A. Burattin, F. M. Maggi, A. Sperduti, **Conformance Checking Based on Multi-Perspective Declarative Process Models**, Expert Systems with Applications, 2016. <https://doi.org/10.1016/j.eswa.2016.08.040>

48. M. L. Bernardi, M. Cimitile, C. Di Francescomarino, F. M. Maggi, **Do Activity Lifecycles Affect the Validity of a Business Rule in a Business Process?** Information Systems, 2016. <https://doi.org/10.1016/j.is.2016.06.002>

49. N. C. Narendra, A. Norta, M. Mahunnah, L. Ma, F. M. Maggi, **Sound Conflict Management and Resolution for Virtual-Enterprise Collaborations**, Service Oriented Computing and Applications, 2015. <https://doi.org/10.1007/s11761-015-0183-0>

50. F. M. Maggi, M. Westergaard, **Designing Software for Operational Decision Support through Coloured Petri nets**, Enterprise Information Systems, 2015. <https://doi.org/10.1080/17517575.2015.1067723>

51. C. Di Ciccio, F. M. Maggi, J. Mendling, **Efficient Discovery of Target-Branched Declare Constraints**, Information Systems, 2015. <https://doi.org/10.1016/j.is.2015.06.009>

52. A. Burattin, M. Cimitile, F. M. Maggi, A. Sperduti, **Online Discovery of Declarative Process Models from Event Streams**, IEEE Transactions on Service Computing, 2015. <https://doi.org/10.1109/TSC.2015.2459703>

53. M. Rovani, F. M. Maggi, M. de Leoni, W. M. P. van der Aalst, **Declarative process mining in healthcare**, Expert Systems with Applications, 2015. <https://doi.org/10.1016/j.eswa.2015.07.040>

54. L. T. Ly, F. M. Maggi, M. Montali, S. Rinderle-Ma, W. M. P. van der Aalst, **Compliance Monitoring in Business Processes: Functionalities, Application, and Tool-Support**, Information Systems, 2015. <https://doi.org/10.1016/j.is.2015.02.007>

55. M. de Leoni, F. M. Maggi, W. M. P. van der Aalst, **An Alignment-based Framework to Check the Conformance of Declarative Process Models and to Pre-process Event-Log Data**, Information Systems, 2015. <https://doi.org/10.1016/j.is.2013.12.005>

56. F. M. Maggi, M. Westergaard, **Using Timed Automata for a Priori Warnings and Planning for Timed Declarative Process Models**, International Journal on Cooperative information systems, 2014. <https://doi.org/10.1142/S0218843014400036>

57. M. Montali, F. M. Maggi, F. Chesani, P. Mello, W. M. P. van der Aalst, **Monitoring Business Constraints with the Event Calculus**, ACM Transactions on Intelligent Systems and Technology, 2013. <https://doi.org/10.1145/2542182.2542199>

58. W. M. P. van der Aalst, A. Burattin, M. de Leoni, A. Guzzo, F. M. Maggi, M. Montali, **Process Mining: come estrarre conoscenza dai log dei sistemi informativi orientati ai processi**, Mondo Digitale – AICA, ANNO XI - N.43 - Settembre 2012. https://mondodigitale.aicanet.net/2012-3/articoli/04_process_mining.pdf

Referred Conference Publications

1. J. Ko, M. T. Wynn, M. Comuzzi, F. M. Maggi, **A Reinforcement Learning Framework for Event Log Anomaly Detection and Repair**. ICPM 2025: 1-8. <https://doi.org/10.1109/ICPM66919.2025.11220719>
2. C. Balaktsis, I. Mavroudopoulos, M. Comuzzi, A. Gounaris, F. M. Maggi, **Discovering Comprehensive Branched Declarative Process Constraints**. BPM (Forum) 2025: 147-164. https://doi.org/10.1007/978-3-032-02929-4_9
3. G. Acitelli, E. De Bellis, F. M. Maggi, A. Marrella, F. Patrizi, **Aligning Metric Temporal Constraints and Event Logs via Numeric Planning**, BPM 2025: 33-50. https://doi.org/10.1007/978-3-032-02867-9_4
4. C. Corea, A. Alman, F. M. Maggi, P. H. Wittlinger, **Declarative Process Specifications over Discrete/Continuous Event Data**. CAiSE (2) 2025: 277-294. https://doi.org/10.1007/978-3-031-94571-7_16
5. I. Donadello, P. Felli, C. Innes, F. M. Maggi, M. Montali, **Conformance Checking of Fuzzy Logs Against Declarative Temporal Specifications**. BPM 2024: 39-56. https://doi.org/10.1007/978-3-031-70396-6_3 **(RUNNER-UP BEST PAPER AWARD)**
6. A. Buliga, R. Graziosi, C. Di Francescomarino, C. Ghidini, F. M. Maggi, W. Rizzi, M. Ronzani, **Nirdizati Light: A Modular Framework for Explainable Predictive Process Monitoring**. BPM (Demos / Resources Forum) 2024: 111-115. <https://ceur-ws.org/Vol-3758/paper-20.pdf>
7. G. Blasilli, L. S. Ferro, S. Lenti, F. M. Maggi, A. Marrella, T. Catarci, **EDD: A Web-Based Editor for Declarative Process Models Using easyDeclare**. ICPM Doctoral Consortium / Demo 2024. https://ceur-ws.org/Vol-3783/paper_364.pdf
8. A. Alman, I. Cohen, A. Gal, F. M. Maggi, M. Montali, **Discovering Process Framing for AI-Augmented BPM Systems in a Multi-Process Setting**. PMAI@ECAI 2024: 47-58. <https://ceur-ws.org/Vol-3779/paper3.pdf>
9. A. Alman, F. M. Maggi, S. Rinderle-Ma, A. Rivkin, K. Winter, **Towards a Multi-model Paradigm for Business Process Management**, CAiSE 2024: 178-194. https://doi.org/10.1007/978-3-031-61057-8_11
10. C. Di Francescomarino, I. Donadello, C. Ghidini, F. M. Maggi, W. Rizzi, S. Tessaris, **Making Sense of Temporal Event Data: A Framework for Comparing Techniques for the Discovery of Discriminative Temporal Patterns**, CAiSE 2024: 423-439. https://doi.org/10.1007/978-3-031-61057-8_25
11. A. Gianola, J. Ko, F. M. Maggi, M. Montali, S. Winkler, **Approximating Multi-perspective Trace Alignment Using Trace Encodings**, BPM 2023: 74-91. https://doi.org/10.1007/978-3-031-41620-0_5

12. A. Alman, F. M. Maggi, M. Montali, A. Rivkin, **Generating Event Logs from Hybrid Process Models**, Business Process Management Workshops 2023: 289-3. https://doi.org/10.1007/978-3-031-41623-1_13
13. F. Chiariello, F. M. Maggi, F. Patrizi, **From LTL on Process Traces to Finite-state Automata**, BPM (Demos / Resources Forum) 2023: 127-131. <https://ceur-ws.org/Vol-3469/paper-23.pdf>
14. I. Donadello, F. M. Maggi, F. Riva, M. Singh, **ASP-Based Log Generation with Purposes in Declare4Py**, ICPM Demo 2023. https://ceur-ws.org/Vol-3648/paper_695.pdf
15. T. Ibershimi, D. Xhemalaj, A. Alman, I. Donadello, F. M. Maggi: **Two Solutions for Checking LTLf Properties in Event Logs**, ICPM Demo 2023. https://ceur-ws.org/Vol-3648/paper_5986.pdf
16. A. Alman, I. Donadello, F. M. Maggi, M. Montali, **Declarative Process Mining for Software Processes: The RuM Toolkit and the Declare4Py Python Library**, PROFES (2) 2023: 13-19. https://doi.org/10.1007/978-3-031-49269-3_2
17. F. Riva, D. Benvenuti, F. M. Maggi, A. Marrella, M. Montali, **An SQL-Based Declarative Process Mining Framework for Analyzing Process Data Stored in Relational Databases**, BPM (Forum) 2023: 214-231. https://doi.org/10.1007/978-3-031-41623-1_13
18. J. Ko, F. M. Maggi, M. Montali, R. Peñaloza, R. Fraga Pereira, **Plan Recognition as Probabilistic Trace Alignment**, ICPM 2023: 33-40. <https://doi.org/10.1109/ICPM60904.2023.10271943>
19. S. J. J. Leemans, F. M. Maggi, M. Montali, **Finite-Trace Analysis of Stochastic Systems with Silent Transitions**, IJCAI 2023: 6452-6457. <https://doi.org/10.24963/ijcai.2023/719>
20. A. Buliga, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **Counterfactuals and Ways to Build Them: Evaluating Approaches in Predictive Process Monitoring**, CAiSE 2023: 558-574. https://doi.org/10.1007/978-3-031-34560-9_33
21. A. R. Cárdenas Maita, M. Fantinato, S. Marques Peres, F. M. Maggi, **Towards a Business-Oriented Approach to Visualization-Supported Interpretability of Prediction Results in Process Mining**, ICEIS (1) 2023: 395-406. <https://doi.org/10.5220/0011976000003467>
22. S. J. J. Leemans, F. M. Maggi, M. Montali, **Reasoning on Labelled Petri Nets and Their Dynamics in a Stochastic Setting**, BPM 2022: 324-342. https://doi.org/10.1007/978-3-031-16103-2_22 **(BEST PAPER AWARD)**

23. I. Donadello, F. Riva, F. M. Maggi, A. Shikhizada, **Declare4Py: A Python Library for Declarative Process Mining**, BPM (PhD/Demos) 2022: 117-121. https://ceur-ws.org/Vol-3216/paper_249.pdf

24. C. Di Francescomarino, I. Donadello, C. Ghidini, F. M. Maggi, W. Rizzi, **Making sense of temporal data: the DECLARE encoding**, PMAI@IJCAI 2022: 77-80. <https://ceur-ws.org/Vol-3310/paper9.pdf>

25. F. Chesani, C. Di Francescomarino, C. Ghidini, G. Grundler, D. Loreti, F. M. Maggi, P. Mello, M. Montali, S. Tessaris, **Optimising Business Process Discovery Using Answer Set Programming**, LPNMR 2022: 498-504. https://doi.org/10.1007/978-3-031-15707-3_38

26. F. Chiariello, F. M. Maggi, F. Patrizi, **ASP-Based Declarative Process Mining**, 36th AAAI Conference on Artificial Intelligence (AAAI 2022). <https://doi.org/10.1609/aaai.v36i5.20493>

27. A. Alman, F. M. Maggi, M. Montali, F. Patrizi, A. Rivkin, **Multi-model Monitoring Framework for Hybrid Process Specifications**, CAiSE 2022: 319-335. [https://doi.org/10.1007/978-3-031-16103-2_22 \(BEST PAPER SHORTLIST\)](https://doi.org/10.1007/978-3-031-16103-2_22)

28. F. Chesani, C. Di Francescomarino, C. Ghidini, D. Loreti, F. M. Maggi, P. Mello, M. Montali, E. Palmieri, S. Tessaris, **Discovering Business Processes models expressed as DNF or CNF formulae of Declare constraints**, CILC 2022: 201-216. https://ceur-ws.org/Vol-3204/paper_21.pdf

29. F. Chesani, C. Di Francescomarino, C. Ghidini, G. Grundler, D. Loreti, F. M. Maggi, P. Mello, M. Montali, S. Tessaris, **Shape Your Process: Discovering Declarative Business Processes from Positive and Negative Traces Taking into Account User Preferences**, EDOC 2022: 217-234. https://doi.org/10.1007/978-3-031-17604-3_13

30. G. Acitelli, M. Angelini, S. Bonomi, F. M. Maggi, A. Marrella, A. Palma, **Context-Aware Trace Alignment with Automated Planning**, ICPM 2022: 104-111. <https://doi.org/10.1109/ICPM57379.2022.9980649>

31. F. Milani, K. Lashkevich, F. M. Maggi, C. Di Francescomarino, **Process Mining: A Guide for Practitioners**, RCIS 2022: 265-282. https://doi.org/10.1007/978-3-031-05760-1_16

32. A. Alman, C. Di Ciccio, F. M. Maggi, Marco Montali, H. van der Aa, **RuM: Declarative Process Mining, Distilled**, BPM 2021: 23-29 https://doi.org/10.1007/978-3-030-85469-0_3

33. O. López-Pintado, M. Dumas, M. Yerokhin, F. M. Maggi, **Silhouetting the Cost-Time Front: Multi-objective Resource Optimization in Business Processes**, BPM (Forum) 2021: 92-108 https://doi.org/10.1007/978-3-030-85440-9_6

34. G. Bergami, F. M. Maggi, A. Marrella, M. Montali, **Aligning Data-Aware Declarative Process Models and Event Logs**, BPM 2021: 235-251 https://doi.org/10.1007/978-3-030-85469-0_16

35. G. Bergami, F. M. Maggi, M. Montali, R. Peñaloza, **A Tool for Computing Probabilistic Trace Alignments**, CAiSE Forum 2021: 118-126 https://doi.org/10.1007/978-3-030-79108-7_14

36. G. Bergami, F. M. Maggi, M. Montali, R. Peñaloza, **Probabilistic Trace Alignment**, ICPM 2021: 9-16 <https://doi.org/10.1109/ICPM53251.2021.9576856>

37. S. Agostinelli, G. Bergami, A. Fiorenza, F. M. Maggi, A. Marrella, F. Patrizi, **Discovering Declarative Process Model Behavior from Event Logs via Model Learning**, ICPM 2021: 48-55 <https://doi.org/10.1109/ICPM53251.2021.9576870> **(BEST PAPER SHORTLIST)**

38. F. M. Maggi, M. Montali, R. Peñaloza, **Temporal Logics Over Finite Traces with Uncertainty**, AAAI 2020: 10218-10225 <https://doi.org/10.1609/aaai.v34i06.6583>

39. F. M. Maggi, M. Montali, R. Peñaloza, A. Alman, **Extending Temporal Business Constraints with Uncertainty**, BPM 2020: 35-54 https://doi.org/10.1007/978-3-030-58666-9_3 **(BEST PAPER SHORTLIST)**

40. H. van der Aa, K. J. Balder, F. M. Maggi, A. Nolte, **Say It in Your Own Words: Defining Declarative Process Models Using Speech Recognition**, BPM (Forum) 2020: 51-67 https://doi.org/10.1007/978-3-030-58638-6_4

41. V. Leno, S. Deviatykh, A. Polyvyanyy, M. La Rosa, M. Dumas, F. M. Maggi, **Robidium: Automated Synthesis of Robotic Process Automation Scripts from UI Logs**, BPM (PhD/Demos) 2020: 102-106 <https://ceur-ws.org/Vol-2673/paperDR08.pdf>

42. A. Alman, K. J. Balder, F. M. Maggi, H. van der Aa, **Declo: A Chatbot for User-friendly Specification of Declarative Process Models**, BPM (PhD/Demos) 2020: 122-126 <https://ceur-ws.org/Vol-2673/paperDR12.pdf>

43. W. Rizzi, C. Di Francescomarino, F. M. Maggi, **Explainability in Predictive Process Monitoring: When Understanding Helps Improving**, BPM (Forum) 2020: 141-158 https://doi.org/10.1007/978-3-030-58638-6_9

44. F. M. Maggi, M. Montali, R. Peñaloza, **Probabilistic Conformance Checking Based on Declarative Process Models**, CAiSE Forum 2020: 86-99 https://doi.org/10.1007/978-3-030-58135-0_8

45. A. Alman, C. Di Ciccio, D. Haas, F. M. Maggi, J. Mendling, **Rule Mining in Action: The RuM Toolkit**, ICPM Doctoral Consortium/Tools 2020: 51-54 <https://ceur-ws.org/Vol-2703/paperTD9.pdf>

46. A. Cecconi, G. De Giacomo, C. Di Ciccio, F. M. Maggi, J. Mendling, **A Temporal Logic-Based Measurement Framework for Process Mining**, ICPM 2020: 113-120 <https://doi.org/10.1109/ICPM49681.2020.00026> **(BEST PAPER SHORTLIST)**

47. A. Alman, C. Di Ciccio, D. Haas, F. M. Maggi, A. Nolte, **Rule Mining with RuM**, ICPM 2020: 121-128 <https://doi.org/10.1109/ICPM49681.2020.00027>

48. V. Leno, A. Augusto, M. Dumas, M. La Rosa, F. M. Maggi, A. Polyvyanyy, **Identifying Candidate Routines for Robotic Process Automation from Unsegmented UI Logs**, ICPM 2020: 153-160 <https://doi.org/10.1109/ICPM49681.2020.00031> **(BEST PAPER SHORTLIST)**

49. N. Navarin, M. Cambiaso, A. Burattin, F. M. Maggi, L. Oneto, A. Sperduti, **Towards Online Discovery of Data-Aware Declarative Process Models from Event Streams**, IJCNN 2020: 1-8 <https://doi.org/10.1109/IJCNN48605.2020.9207500>

50. V. Leno, M. Dumas, M. La Rosa, F. M. Maggi, A. Polyvyanyy, **Automated Discovery of Data Transformations for Robotic Process Automation**, AAAI-20 Workshop on Intelligent Process Automation. <http://hdl.handle.net/11343/241635> **(BEST PAPER AWARD)**

51. V. Leno, A. Polyvyanyy, M. La Rosa, M. Dumas, F. M. Maggi, **Action Logger: Enabling Process Mining for Robotic Process Automation**, BPM (PhD/Demos) 2019, Vienna, Austria. <https://ceur-ws.org/Vol-2420/paperDT2.pdf>

52. W. Rizzi, L. Simonetto, C. Di Francescomarino, C. Ghidini, T. Kasekamp, F. M. Maggi, **Nirdizati 2.0: New Features and Redesigned Backend**, BPM (PhD/Demos) 2019, Vienna, Austria. <https://ceur-ws.org/Vol-2420/paperDT8.pdf>

53. S. Agostinelli, F. M. Maggi, A. Marrella, F. Sapiro, **Achieving GDPR Compliance of BPMN Process Models**, CAiSE (Forum) 2019, Rome, Italy. https://doi.org/10.1007/978-3-030-21297-1_2

54. A. Burattin, G. Guizzardi, F. M. Maggi, M. Montali, **Fifty Shades of Green: How Informative is a Compliant Process Trace?**, CAiSE 2019, Rome, Italy. https://doi.org/10.1007/978-3-030-21290-2_38

55. F. Chesani, C. Di Francescomarino, C. Ghidini, D. Loreti, F. M. Maggi, P. Mello, M. Montali, V. Skydanienko, S. Tessaris, **Towards the Generation of the “Perfect” Log Using Abductive Logic Programming**, CILC 2019, Trieste, Italy. <https://ceur-ws.org/Vol-2396/paper26.pdf>

56. S. Agostinelli, F. M. Maggi, A. Marrella, M. Mecella, **Verifying Petri Net-Based Process Models using Automated Planning**, EDOC Workshops 2019, Paris, France. <https://doi.org/10.1109/EDOCW.2019.00021>

57. S. Agostinelli, F. M. Maggi, A. Marrella, F. Milani, **A User Evaluation of Process Discovery Algorithms in a Software Engineering Company**, EDOC 2019, Paris, France. <https://doi.org/10.1109/EDOC.2019.00026>

58. F. M. Maggi, M. Montali, U. Bhat, **Compliance Monitoring of Multi-Perspective Declarative Process Models**, EDOC 2019, Paris, France. <https://doi.org/10.1109/EDOC.2019.00027>

59. P. Ardimento, M. L. Bernardi, M. Cimitile, F. M. Maggi, **Evaluating coding behavior in software development processes: a process mining approach**, ICSSP 2019, Montréal, Canada. <https://doi.org/10.1109/ICSSP.2019.00020>

60. S. Coltellese, F. M. Maggi, A. Marrella, L. Massarelli, L. Querzoni, **Triage of IoT Attacks Through Process Mining**, CoopIS 2019, Rhodes, Greece. https://doi.org/10.1007/978-3-030-33246-4_22

61. F. M. Maggi, A. Marrella, G. Capezzuto, A. Armas-Cervantes, **Explaining Non-compliance of Business Process Models Through Automated Planning**, ICSOC 2018, Hangzhou, Zhejiang, China. https://doi.org/10.1007/978-3-030-03596-9_12

62. V. Leno, M. Dumas and F. M. Maggi, **Correlating Activation and Target Conditions in Data-Aware Declarative Process Discovery**, BPM 2018, Sydney, Australia. https://doi.org/10.1007/978-3-319-98648-7_11

63. C. Di Francescomarino, C. Ghidini, F. M. Maggi and F. Milani, **Predictive Process Monitoring Methods: Which One Suits Me Best?**, BPM 2018, Sydney, Australia. https://doi.org/10.1007/978-3-319-98648-7_27

64. I. Teinemaa, N. Tax, M. de Leoni, M. Dumas and F. M. Maggi, **Alarm-Based Prescriptive Process Monitoring**, BPM (Forum) 2018, Sydney, Australia. https://doi.org/10.1007/978-3-319-98651-7_6

V. Skydanienko, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **A Tool for Generating Event Logs from Multi-Perspective Declare Models**, BPM (Dissertation/Demos/Industry) 2018, Sydney, Australia. https://ceur-ws.org/Vol-2196/BPM_2018_paper_23.pdf

65. I. Verenich, S. Mõskovski, S. Raboczi, M. Dumas, M. La Rosa, F. M. Maggi, **Predictive Process Monitoring in Apromore**, CAiSE (Forum) 2018, Tallinn, Estonia. [https://doi.org/10.1007/978-3-319-92901-9_21_\(BEST DEMO AWARD\)](https://doi.org/10.1007/978-3-319-92901-9_21_(BEST DEMO AWARD))

66. V. Leno, A. Armas-Cervantes, M. Dumas, M. La Rosa, F. M. Maggi, **Discovering Process Maps from Event Streams**, ICSSP 2018, Gothenburg, Sweden. <https://doi.org/10.1145/3202710.3203154>

67. F. Milani, F. M. Maggi, **A Comparative Evaluation of Log-Based Process Performance Analysis Techniques**, BIS 2018, Berlin, Germany. https://doi.org/10.1007/978-3-319-93931-5_27

68. D. Schunselaar, T. Slaats, F. M. Maggi, H. Reijers, W. M. P. van der Aalst, **Mining Hybrid Business Process Models: A Quest for Better Precision**, BIS 2018, Berlin, Germany. https://doi.org/10.1007/978-3-319-93931-5_14

69. R. De Masellis, C. Di Francescomarino, C. Ghidini, A. Lapõnin, F. M. Maggi, **Rule Propagation: Adapting Procedural Process Models to Declarative Business Rules**, EDOC 2017, Quebec City, Canada. <https://doi.org/10.1109/EDOC.2017.30>

70. C. Di Francescomarino, C. Ghidini, F. M. Maggi, G. Petrucci, A. Yeshchenko, **An Eye into the Future: Leveraging A-Priori Knowledge in Predictive Business Process Monitoring**, 15th International Conference on Business Process Management (BPM 2017), Barcelona, Spain. https://doi.org/10.1007/978-3-319-65000-5_15

71. A. Senderovich, C. Di Francescomarino, C. Ghidini, K. Jorbina, F. M. Maggi, **Intra and Inter-Case Features in Predictive Process Monitoring: A Tale of Two Dimensions**, BPM 2017, Barcelona, Spain. [https://doi.org/10.1007/978-3-319-65000-5_18 \(BEST PAPER SHORTLIST\)](https://doi.org/10.1007/978-3-319-65000-5_18)

72. K. Jorbina, A. Rozumnyi, I. Verenich, C. Di Francescomarino, M. Dumas, C. Ghidini, F. M. Maggi, M. La Rosa, S. Raboczi, **Nirdizati: A Web-Based Tool for Predictive Process Monitoring**, BPM (Demos) 2017, Barcelona, Spain. [https://ceur-ws.org/Vol-1920/BPM_2017_paper_202.pdf \(BEST DEMO AWARD\)](https://ceur-ws.org/Vol-1920/BPM_2017_paper_202.pdf)

73. A. Janes, F. M. Maggi, A. Marrella, M. Montali, **From Zero to Hero: A Process Mining Tutorial**, PROFES 2017, Innsbruck, Austria. https://doi.org/10.1007/978-3-319-69926-4_55

74. D. Calvanese, M. Dumas, F. M. Maggi, M. Montali, **Semantic DMN: Formalizing Decision Models with Domain Knowledge**, RuleML+RR 2017, London, UK. [https://doi.org/10.1007/978-3-319-61252-2_6 \(BEST PAPER AWARD\)](https://doi.org/10.1007/978-3-319-61252-2_6)

75. H. Nguyen, M. Dumas, A. H. M. ter Hofstede, M. La Rosa, F. M. Maggi, **Mining Business Process Stages from Event Logs**, CAiSE 2017, Essen, Germany. https://doi.org/10.1007/978-3-319-59536-8_36

76. G. De Giacomo, F. M. Maggi, A. Marrella, F. Patrizi, **On the Disruptive Effectiveness of Automated Planning for LTLf-based Trace Alignment**, AAAI-17, San Francisco, California USA. <https://doi.org/10.1609/aaai.v31i1.11020>

77. T. Slaats, D. Schunselaar, F. M. Maggi, H. Reijers, **The Semantics of Hybrid Process Models**, CoopIS 2016, Rhodes, Greece. https://doi.org/10.1007/978-3-319-48472-3_32

78. R. De Masellis, C. Di Francescomarino, C. Ghidini, F. M. Maggi, **Declarative Process Models: Different Ways to be Hierarchical**, ICSOC 2016, Banff, Alberta, Canada. https://doi.org/10.1007/978-3-319-46295-0_7

79. S. Schönig, C. Di Ciccio, F. M. Maggi, J. Mendling, **Discovery of Multi-Perspective Declarative Process Models**, ICSOC 2016, Banff, Alberta, Canada. https://doi.org/10.1007/978-3-319-46295-0_6

80. T. Kala, F. M. Maggi, C. Di Ciccio, C. Di Francescomarino, **Apriori and Sequence Analysis for Discovering Declarative Process Models**, EDOC 2016, Vienna, Austria. <https://doi.org/10.1109/EDOC.2016.7579378> **(BEST PAPER SHORTLIST)**

81. D. Calvanese, M. Dumas, Ü. Laurson, F. M. Maggi, M. Montali, I. Teinemaa, **Semantics and Analysis of DMN Decision Tables**, BPM 2016, Rio de Janeiro, Brazil. https://doi.org/10.1007/978-3-319-45348-4_13 **(BEST PAPER AWARD)**

82. F. M. Maggi, M. Montali, C. Di Ciccio, J. Mendling, **Semantical Vacuity Detection in Declarative Process Mining**, BPM 2016, Rio de Janeiro, Brazil. https://doi.org/10.1007/978-3-319-45348-4_10 **(BEST PAPER SHORTLIST)**

83. I. Teinemaa, M. Dumas, F. M. Maggi, C. Di Francescomarino, **Predictive Business Process Monitoring with Structured and Unstructured Data**, BPM 2016, Rio de Janeiro, Brazil. https://doi.org/10.1007/978-3-319-45348-4_23

84. Ü. Laurson, F. M. Maggi, **A Tool for the Analysis of DMN Decision Tables**, BPM (Demos) 2016, Rio de Janeiro, Brazil. <https://ceur-ws.org/Vol-1789/bpm-demo-2016-paper11.pdf>

85. G. De Giacomo, F. M. Maggi, A. Marrella, S. Sardiña, **Computing Trace Alignment against Declarative Process Models through Planning**, ICAPS 2016, London, UK. <http://www.aaai.org/ocs/index.php/ICAPS/ICAPS16/paper/view/13094>

86. C. Di Francescomarino, M. Dumas, M. Federici, C. Ghidini, F. M. Maggi, W. Rizzi, **Predictive Business Process Monitoring Framework with Hyperparameter Optimization**, CAiSE 2016, Ljubljana, Slovenia. https://doi.org/10.1007/978-3-319-39696-5_22 **(RUNNER-UP BEST PAPER AWARD)**

87. H. Nguyen, M. Dumas, A. H. M. ter Hofstede, M. La Rosa, F. M. Maggi, **Business Process Performance Mining with Staged Process Flows**, CAiSE 2016, Ljubljana, Slovenia. https://doi.org/10.1007/978-3-319-39696-5_11

88. I. Verenich, M. Dumas, M. La Rosa, F. M. Maggi, C. Di Francescomarino, **Minimizing Overprocessing Waste in Business Processes via Predictive Activity Ordering**, CAiSE 2016, Ljubljana, Slovenia. https://doi.org/10.1007/978-3-319-39696-5_12

89. M. L. Bernardi, M. Cimitile, F. M. Maggi, **Automated development of constraint-driven web applications**, SAC 2016, Pisa, Italy. <https://doi.org/10.1145/2851613.2851665>

90. M. Federici, W. Rizzi, C. Di Francescomarino, M. Dumas, C. Ghidini, F. M. Maggi, I. Teinemaa, **A ProM Operational Support Provider for Predictive Monitoring of Business Processes**, BPM (Demos) 2015, Innsbruck, Austria. <https://ceur-ws.org/Vol-1418/paper1.pdf>

91. Ilya Verenich, Marlon Dumas, Marcello La Rosa, Fabrizio Maria Maggi, Chiara Di Francescomarino, **Complex Symbolic Sequence Clustering and Multiple Classifiers for Predictive Process Monitoring**, BPI 2015, Innsbruck, Austria. https://doi.org/10.1007/978-3-319-42887-1_18

92. C. Di Ciccio, F. M. Maggi, M. Montali, J. Mendling, **Ensuring Model Consistency in Declarative Process Discovery**, BPM 2015, Innsbruck, Austria. [https://doi.org/10.1007/978-3-319-23063-4_9 \(BEST PAPER AWARD\)](https://doi.org/10.1007/978-3-319-23063-4_9)

93. A. Leontjeva, R. Conforti, C. Di Francescomarino, M. Dumas, F. M. Maggi, **Complex Symbolic Sequence Encodings for Predictive Monitoring of Business Processes**, BPM 2015, Innsbruck, Austria. [https://doi.org/10.1007/978-3-319-23063-4_21 \(TEST OF TIME AWARD\)](https://doi.org/10.1007/978-3-319-23063-4_21)

94. A. Jalali, F. M. Maggi, H. A. Reijers, **Enhancing Aspect-Oriented Business Process Modeling with Declarative Rules**, ER 2015, Stockholm, Sweden. https://doi.org/10.1007/978-3-319-25264-3_8

95. C. Di Ciccio, M. L. Bernardi, M. Cimitile, F. M. Maggi, **Generating Event Logs Through the Simulation of Declare Models**, EOMAS@CAiSE 2015, Stockholm, Sweden. https://doi.org/10.1007/978-3-319-24626-0_2

96. G. De Giacomo, M. Dumas, F. M. Maggi, M. Montali, **Declarative Process Modeling in BPMN**, CAiSE 2015, Stockholm, Sweden. https://doi.org/10.1007/978-3-319-19069-3_6

97. M. Räim, C. Di Ciccio, F. M. Maggi, M. Mecella, J. Mendling, **Log-Based Understanding of Business Processes through Temporal Logic Query Checking**, CoopIS 2014, Calabria, Italy. https://doi.org/10.1007/978-3-662-45563-0_5

98. H. Nguyen, M. Dumas, M. La Rosa, F. M. Maggi, S. Suriadi, **Mining Business Process Deviance: A Quest for Accuracy**, CoopIS 2014, Calabria, Italy. https://doi.org/10.1007/978-3-662-45563-0_25

99. F. M. Maggi, C. Di Francescomarino, M. Dumas, C. Ghidini, **Predictive Monitoring of Business Processes**, CAiSE 2014, Thessaloniki, Greece. https://doi.org/10.1007/978-3-319-07881-6_31

100. F. M. Maggi, T. Slaats, H. A. Reijers, **The Automated Discovery of Hybrid Processes**, BPM 2014, Eindhoven, The Netherlands. https://doi.org/10.1007/978-3-319-10172-9_27

101. C. Di Cicco, F. M. Maggi, J. Mendling, **Discovering Target-Branched Declare Constraints**, BPM 2014, Eindhoven, The Netherlands. https://doi.org/10.1007/978-3-319-10172-9_3 **(BEST PAPER SHORTLIST)**

102. G. De Giacomo, R. De Masellis, M. Grasso, F. M. Maggi, M. Montali, **Monitoring Business Metaconstraints Based on LTL and LDL for Finite Traces**, BPM 2014, Eindhoven, The Netherlands. https://doi.org/10.1007/978-3-319-10172-9_1

103. A. Burattin, M. Cimitile, F. M. Maggi, **Lights, Camera, Action! Business Process Movies for Online Process Discovery**, TAPrOViZ 2014, Eindhoven, The Netherlands. https://doi.org/10.1007/978-3-319-15895-2_34

104. R. De Masellis, F. M. Maggi, M. Montali, **Monitoring Data-Aware Business Constraints with Finite State Automata**, ICSSP 2014, Nanjing, China. <https://doi.org/10.1145/2600821.2600835>

105. M. L. Bernardi, M. Cimitile, C. Di Francescomarino, F. M. Maggi, **Using Discriminative Rule Mining to Discover Declarative Process Models with Non-atomic Activities**, RuleML 2014, Prague, Czech Republic. https://doi.org/10.1007/978-3-319-09870-8_21 **(RUNNER-UP BEST PAPER AWARD)**

106. M. L. Bernardi, M. Cimitile, F. M. Maggi, **Discovering Cross-Organizational Business Rules from the Cloud**, CIDM 2014, Orlando, Florida. <https://doi.org/10.1109/CIDM.2014.7008694>

107. F. M. Maggi, **Discovering Metric Temporal Business Constraints from Event Logs**, BIR 2014, Lund, Sweden. https://doi.org/10.1007/978-3-319-11370-8_19

108. N. C. Narendra, A. Norta, M. Mahunnah, F. M. Maggi, **Modelling Sound Conflict Management for Virtual-Enterprise Collaboration**, SCC 2014, Anchorage, Alaska. <https://doi.org/10.1109/SCC.2014.110>

109. F. M. Maggi, M. Dumas, L. García-Bañuelos, M. Montali, **Discovering Data-Aware Declarative Process Models from Event Logs**, BPM 2013, Beijing, China. https://doi.org/10.1007/978-3-642-40176-3_8

110. J. C. Bose, F. M. Maggi, W. M. P. van der Aalst, **Enhancing Declare Maps Based on Event Correlations**, BPM 2013, Beijing, China. https://doi.org/10.1007/978-3-642-40176-3_9

111. F. M. Maggi, J. C. Bose, W. M. P. van der Aalst, **A Knowledge-Based Integrated Approach for Discovering and Repairing Declare Maps**, CAiSE 2013, Valencia, Spain. https://doi.org/10.1007/978-3-642-38709-8_28

112. M. Montali, F. Chesani, F. M. Maggi, P. Mello, **Towards Data-Aware Constraints in Declare**, SAC 2013, Coimbra, Portugal. <https://doi.org/10.1145/2480362.2480624>

113. R. Kocielnik, F. M. Maggi, N. Sidorova, M. Ouwerkerk, J. H.D.M. Westerink, **Smart Technologies for Long-Term Stress Monitoring at Work**, CBMS 2013, Porto, Portugal. <https://doi.org/10.1109/CBMS.2013.6627764>

114. L. T. Ly, F. M. Maggi, M. Montali, S. Rinderle-Ma, W. M. P. Van der Aalst, **A Framework for the Systematic Comparison and Evaluation of Compliance Monitoring Approaches**, EDOC 2013, Vancouver, Canada. <https://doi.org/10.1109/EDOC.2013.11> **(BEST PAPER SHORTLIST)**

115. F. M. Maggi, A. Burattin, M. Cimitile, A. Sperduti, **Online Process Discovery to Detect Concept Drifts in LTL-Based Declarative Process Models**, CoopIS 2013, Graz, Austria. https://doi.org/10.1007/978-3-642-41030-7_7

116. F. M. Maggi, **Declarative Process Mining with the Declare Component of ProM**, BPM (Demos) 2013, Beijing, China. https://ceur-ws.org/Vol-1021/paper_8.pdf

117. M. L. Bernardi, M. Cimitile, F. M. Maggi, **Process Lines for Automatic Workflow Development**, ICSOFT 2013, Reykjavik, Iceland. <https://doi.org/10.5220/0004492400410049>

118. R. Kocielnik, F. M. Maggi, N. Sidorova, **Enabling Self-Reflection with LifelogExplorer: Generating Simple Views from Complex Data**, Pervasive Health 2013, Venice, Italy. <https://doi.org/10.4108/icst.pervasivehealth.2013.251934>

119. M. L. Bernardi, M. Cimitile, G. Di Lucca, F. M. Maggi, **M3D: A Tool for the Model Driven Development of Web Applications**, WIDM 2012, Manui, Hawaii. <https://doi.org/10.1145/2389936.2389951>

120. M. Westergaard, F. M. Maggi, **Looking Into the Future. Using Timed Automata to Provide A Priori Advice about Timed Declarative Process Models**, CoopIS 2012, Roma, Italy. https://doi.org/10.1007/978-3-642-33606-5_16 **(BEST PAPER SHORTLIST)**

121. D. Schunselaar, F. M. Maggi, N. Sidorova, W. M. P. Van der Aalst, **Configurable Declare: Designing Customisable Flexible Process Models**, CoopIS 2012, Roma, Italy. https://doi.org/10.1007/978-3-642-33606-5_3

122. M. L. Bernardi, M. Cimitile, G. Di Lucca, F. M. Maggi, **Development of Flexible Process-Centric Web Applications: An Integrated Model Driven Approach**, WSE 2012, Riva del Garda (Trento), Italy. <https://doi.org/10.1109/WSE.2012.6320534>

123. M. L. Bernardi, M. Cimitile, G. Di Lucca, F. M. Maggi, **Using Declarative Workflow Languages to Develop Process-Centric Web Applications**, EVL-BP 2012, Beijing, China. <https://doi.org/10.1109/EDOCW.2012.17>

124. A. Burattin, F. M. Maggi, W. M. P. Van der Aalst, A. Sperduti, **Techniques for A Posteriori Analysis of Declarative Processes**, EDOC 2012, Beijing, China. <https://doi.org/10.1109/EDOC.2012.15>

125. M. L. Bernardi, M. Cimitile, F. M. Maggi, **Model Driven Development of Process-Centric Web Applications**, ICSSOFT 2012, Rome, Italy. <https://doi.org/10.5220/0004069903400346>

126. M. de Leoni, F. M. Maggi, W. M. P. van der Aalst, **Aligning Event Logs and Declarative Process Models for Conformance Checking**, BPM 2012, Tallinn, Estonia. https://doi.org/10.1007/978-3-642-32885-5_6 (**BEST PAPER SHORTLIST**)

127. D. Schunselaar, F. M. Maggi, N. Sidorova, **Pattern for a Log-Based Strengthening of Declarative Compliance Models**, iFM 2012, Pisa, Italy. https://doi.org/10.1007/978-3-642-30729-4_23

128. F. M. Maggi, J. C. Bose, W. M. P. van der Aalst, **Efficient Discovery of Understandable Declarative Process Models from Event Logs**, CAiSE 2012, Gdansk, Poland. https://doi.org/10.1007/978-3-642-31095-9_18

129. F. M. Maggi, M. Montali, W. M. P. van der Aalst, **An Operational Decision Support Framework for Monitoring Business Constraints**, FASE 2012, Tallinn, Estonia. https://doi.org/10.1007/978-3-642-28872-2_11

130. F. M. Maggi, M. Westergaard, M. Montali, W. M. P. van der Aalst, **Runtime Verification of LTL-Based Declarative Process Models**, RV 2011, San Francisco, United States. https://doi.org/10.1007/978-3-642-29860-8_11

131. F. M. Maggi, M. Montali, M. Westergaard, W. M. P. van der Aalst, **Monitoring Business Constraints with Linear Temporal Logic: An Approach Based on Colored Automata**, BPM 2011, Clermont-Ferrand, France. https://doi.org/10.1007/978-3-642-23059-2_13 (**TEST OF TIME AWARD**)

132. W. M. P. van der Aalst et al., **Process Mining Manifesto**, BPI 2011, Clermont-Ferrand, France. https://doi.org/10.1007/978-3-642-28108-2_19

133. M. Westergaard, F. M. Maggi, **Declare: A Tool Suite for Declarative Workflow Modeling and Enactment**, BPM (Demos) 2011, Clermont-Ferrand, France. <https://ceur-ws.org/Vol-820/Demo3.pdf>

134. M. Westergaard, F. M. Maggi, **Modelling and Verification of a Protocol for Operational Support using Coloured Petri Nets**, PETRI NETS 2011, Kanazawa, Japan. https://doi.org/10.1007/978-3-642-21834-7_10 (**BEST PAPER SHORTLIST**)

135. F. M. Maggi, A. J. Mooij, W. M. P. van der Aalst, **User-Guided Discovery of Declarative Process Models**, CIDM 2011, Paris, France. <https://doi.org/10.1109/CIDM.2011.5949297>

136. F. M. Maggi, D. Corapi, A. Russo, E. Lupu, G. Visaggio, **Revising Process Models through Inductive Learning**, BPI 2010, Hoboken, New Jersey, United States. https://doi.org/10.1007/978-3-642-20511-8_16

137. N. Boffoli, M. Cimitile, F. M. Maggi, G. Visaggio, **Managing SOA System Variation through Business Process Lines and Process Oriented Development**, SPLC 2009, San Francisco, United States. <https://doi.org/10.1109/SPLC.2009.33>

138. N. Boffoli, M. Cimitile, F. M. Maggi, **Managing Business Process Flexibility and Reuse through Business Process Lines**, ICSOFT 2009, Sofia, Bulgaria. <https://www.scitepress.org/Papers/2009/22578/22578.pdf>

139. M. Cimitile, F. M. Maggi, G. Mastelloni, G. Visaggio, **Tacit Suggestions Extraction Process for Consumer-Oriented Services**, ICDS 2009, Cancun, Mexico. <https://doi.org/10.1109/ICDS.2009.29>

140. N. Boffoli, D. Caivano, D. Castelluccia, F. M. Maggi, G. Visaggio, **Business Process Lines for SOA Development through the Software Product Lines Paradigm**, SPLC 2008, Limerik, Ireland. <https://doi.org/10.1107/SPLC.2008.31>

141. N. Boffoli, D. Castelluccia, F. M. Maggi, R. Rutilo, **Business Process Modelling Aware of Environmental Changes: a Pattern-Driven Approach**, ENASE 2008, Madeira, Portugal. <https://doi.org/10.5220/0001731501420147>

142. N. Boffoli, D. Castelluccia, F. M. Maggi, R. Rutilo, **Flexible Process Modelling through Decision Tables**, IASTED 2008, Innsbruck, Austria. https://doi.org/10.1007/978-3-540-25970-1_19

Book Chapters

143. M. Dumas, M. La Rosa, V. Leno, A. Polyvyanyy, F. M. Maggi, **Robotic Process Mining**, Process Mining Handbook 2022: 468-491 https://doi.org/10.1007/978-3-031-08848-3_16

144. F. M. Maggi, **Declarative Process Mining**, 2019 Springer. https://doi.org/10.1007/978-3-319-63962-8_92-1

145. M. Dumas, F. M. Maggi, **Enabling Process Innovation via Deviance Mining and Predictive Monitoring**, 2015 Springer. https://doi.org/10.1007/978-3-319-14430-6_10

146. M. Dumas, F. M. Maggi, **Evidence-Based Business Process Management**, 2015 Elsevier. <https://doi.org/10.1016/B978-0-12-799959-3.00017-3>

147. F. M. Maggi, A. J. Mooij, W. M. P. van der Aalst, **Analyzing Vessel Behavior Using Process Mining**, 2013 Springer. https://doi.org/10.1007/978-1-4614-6230-9_9

148. E. Zimeo, V. Mazza, G. Orsi, E. Quintarelli, A. Romano, P. Spoletini, G. Tretola, A. Amirante, A. Botta, L. Cavallaro, D. Consoli, E. Giallonardo, F. M. Maggi, G. Tiotto, **Putting It All Together: Using the ArtDeco Approach in the Wine Business Domain**, ArtDeco 2012. https://doi.org/10.1007/978-3-642-31739-2_21

149. N. Boffoli, M. Cimitile, F. M. Maggi, G. Visaggio, **An Approach to Digital Business Ecosystem Based on Process Models**, ITAIS 2009. https://link.springer.com/content/pdf/10.1007/978-3-7908-2404-9_59.pdf