

## PERSONAL INFORMATION

## AGOSTINO DOVIER



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Gender Male | Date of birth July 28th 1965 | Nationality Italian

## WORK EXPERIENCE

Dec 2016 – Present

## Professor of Computer Science

SSD INF0-01/A, Informatica

Teaching Foundations of Computer Science

Teaching Automated Reasoning

Teaching Introduction to Artificial Intelligence

Heading Constraint and Logic Programming Lab

Advisor Advisor/coadvisor of more than 170 bachelor and master students (since 1997)

Nov 2001 – Nov 2016

## Associate Professor of Computer Science

Institution University of Udine, Italy

Teaching Foundations of Computer Science

Teaching Constraint Programming and Planning

Teaching Information Theory and Cryptography

Apr 1997 – Oct 2001

## Researcher in Computer Science

Institution University of Verona, Italy

Teaching Foundations of Computer Science

Teaching Computational Complexity

Feb 1997 – Apr 1997

## Post DOC research position CNR

Research Constraint Programming

Institution University of Udine, Italy

## EDUCATION AND TRAINING

1992–1996

## PhD in Computer Science

Officially Dottorato di Ricerca in Informatica

Dissertation Title Computable Set Theory and Logic Programming

Institution University of Pisa, Italy

1986–1991

## Master Degree in Computer Science

Officially Laurea in Scienze dell'Informazione

Thesis Title Logic Programming with Sets

Institution University of Udine, Italy

## ACADEMIC POSITIONS

2025 – Present

## Head of AI, University of Udine

- 2022 – Present Head of didactics, University of Udine**
- 2022 Dealing with several changes needed after pandemic stop
  - 2023 Preparation of accreditation visit by ANVUR
  - 2024 Handling the process of revision of all course programs according to DM 1648/9 2023
  - 2025 Organization of the didactics for the new national program for Medicine
- 2020 – Present Member of the EC (giunta) of the Italian association (of professors and researchers) of Informatica (GRIN)**
- Organization of the new web site
  - New “declaratoria” for the academic group
  - List of CS Journals divided according to the “declaratoria”
  - New Accreditation Requirements (Bollino GRIN) for CS programs
- 2018 – 2021 Member of the Italian habilitation committee (ASN) 01/B1 (Informatica)**
- Processed 298 applications for full professor and 494 for associate professor
- 2016 – 2022 Head of the Computer Science curricula, University of Udine**
- Consolidation of the Bachelor and Master Degrees in Informatica
  - Activation of the bachelor degree in Internet of Things, Big Data, Machine Learning
  - Activation of the Master Degree in Artificial Intelligence and Cybersecurity, International program, double degree with AAUK, Austria
  - Handling teaching under the COVID emergency

## RESEARCH POSITIONS

- 2026 – Present Theory and Practice of Logic Programming (TPLP)**
- Editor in Chief
  - Publisher Cambridge University Press
- 2024 – 2025 Theory and Practice of Logic Programming**
- Editorial advisor
  - Publisher Cambridge University Press
- 2018 – Present Member of Executive committee (Direttivo) of the Italian association for logic programming (GULP)**
- As former president
- 2016 – 2023 Theory and Practice of Logic Programming**
- Area Editor Constraints
  - Publisher Cambridge University Press
- 2012 – 2018 President of the Italian association for logic programming (GULP)**
- Conferences in Catania, Torino, Genova, Milano, Trieste, Bolzano
  - PhD school in Genova
- 2012 – Present Track editor of Algorithms for Molecular Biology**
- Track Constraints and Bioinformatics
  - Publisher Springer Nature

- 2012 – Present **Member of Executive committee of the (international) Association for Logic Programming**  
As editor of the ALP Newsletter
- 2010 – Present **Editor of the Association for Logic Programming Newsletter**  
<https://logicprogramming.org/>
- 2008 – 2012 **Member of Executive committee of the (international) Association for Logic Programming**  
Conferences in Udine, Pasadena (CA–USA), Edinburgh (Scotland–UK), Lexington (KY–USA), Budapest (Hungary)
- 2000 – 2011 **Member of Executive committee (Direttivo) of the Italian association for logic programming (GULP)**  
Conferences in Havana (Cuba), Evora (PT), Madrid (ES), Reggio Calabria, Parma, Roma, Bari, Messina, Perugia, Ferrara, Rende, Pescara

## RESEARCH

My research area is centered in Artificial Intelligence, with a focus on languages and techniques for knowledge representation and automated reasoning. In particular, my recent research interests include the definition and the (parallel) implementation of declarative programming languages and their applications in planning, scheduling, with particular emphasis on robotics and bioinformatics, Logical Learning and its applications to AI Explainability.

I am author or co-author of more than 170 peer reviewed international research papers, co-editor/author of three books and of some journal special issues, and I have been program/general chair/co-chair of some international meetings. Among them we cite:

- Conference chair of CILC 2023 (Udine), 38th Italian Conference on Computational Logic
- Program chair of AIxIA 2022 (Udine), International Conference of the Italian Association for Artificial Intelligence
- Program chair of ICLP 2012 (Budapest), International Conference on Logic Programming,
- General chair of ICLP 2008 (Udine), International Conference on Logic Programming,
- Program chair of several editions of the International Workshops on Constraint Based Methods for Bioinformatics (2005–2018)

I am editor in chief of the journal “Theory and Practice of Logic Programming” (Cambridge University Press), the journal of my research area, I have been in the editorial board of other international journals, and I have been in the PC of hundreds of national and international workshops and conferences. I won some research awards and held keynote invited talks, and some Radio interviews, in particular:

- Introduction to Artificial Intelligence. Summer School on AI-Act Udine, September 2024
- Constraint Programming: Autumn School on Logic and Constraint Programming, 2021 Porto, Portugal
- The SATisfiability problem and its impact. CILC 2019, Trieste (Italy).
- The role of SAT, CP, and Logic Programming in Computational Biology. Keynote Speech. Joint Conferences ICLP, SAT, CP 2017, Melbourne.
- Constraints and Bioinformatics: Results and Challenges. Tutorial at CP 2015, Cork, Ireland.
- Constraints and Biology: ACP Summer School, Wrocław, Poland, 2012.
- How Logic Programming can Fold a Protein, ICLP 2011 (DC), Lexington, Kentucky.
- Il problema del Protein Folding e i relativi approcci basati su programmazione con vincoli. Tutorial at CILC 2004, Parma (Italy).

I founded and chair the Constraint and Logic Programming Lab and the AI for Human Computer collaboration lab of the University of Udine.

## TEACHING

Currently I teach the courses of Foundations of Computer Science at the Bachelor level and of Automated Reasoning at the Master level and an interdisciplinary course of Introduction to AI. In the years I have been teaching Information Theory, Computational Complexity, Cryptography, as well as many introductory courses to computer science for several course programs.

I have been supervisor of more than 170 bachelor, master, and PhD Students. Among them I report: Elisa Quintarelli (PhD PoliMI, Professor, University of Verona), Alessandro Dal Palù (PhD Udine, Associate Professor, University of Parma), Jacopo Mauro (PhD Bologna, Professor, University of Southern Denmark), Luca Bortolussi (PhD Udine, Professor, University of Trieste), Ferdinando Fioretto (PhD Udine and NMSU, Assistant Professor, University of Virginia, Mario Gerla Award winner), Alice Tarzariol (PhD AAUK, Assistant Professor, AAUK, Austria), Francesco Fabiano (PhD Udine and NMSU, Research Associate, University of Oxford, UK), Federico Campeotto (PhD Udine and NMSU, Co-founder Homa AI, San Francisco, California), Tommaso Dreossi (PhD Udine, ML Scientist Arena, San Francisco, California), Pietro Totis (PhD KU Leuven, Senior AI Research Associate at JPMorgan Chase & Co, Madrid), Federico Igne (PhD Univ. of Oxford, Software Engineer, Elettronica Group, Rome), Fabio Tardivo (PhD NMSU, Post Doc Univ. of Connecticut), Mihai Horia Popescu (PhD Udine, Research collaborator, University of Udine), Matteo Dunnhofer (PhD Udine, Researcher, University of Udine), Alessandro Burigana (PhD Bolzano, Research Assistant, Free Univ. of Bolzano), Marco De Bortoli (PhD TU Graz), Davide Soldà, Michele Collevati (PhD student, TU Wien), Riouak Idriss (PhD Lund University, Software Engineer at GitHub), Magda Solitro (FBK, Trento), Roberto Borelli (PhD student, University of Padova), Paolo Zuliani (Software Engineering Manager at Adobe, San Francisco, California), Luca Foschiani (Software Engineer at Mathworks, Cambridge, UK), Sara Biavaschi (Software Engineer at Google, Zurigo), Giulia Francescutto (Software Engineer at Siemens, Vienna), Simone Bellan (AI Engineer, IBM Milano), Alberto Ghedin (Head of Data Management at Engineering, Padova), and also the excellent students that later started completely different challenging experiences: Gianni Zongaro (professional guitar player), Stefano De Giorgio (professional sax player), Raffaele Cipriano (PhD in Udine, Director of Orchestras and Assistant Professor — music, Washburn University), and Marco Meneghin (Dominican friar).

## PERSONAL SKILLS

**Mother tongue** Italian

**Other languages**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C2	B2	C1	C1
Furlan	C1	C1	C2	C1	B1
Graesan	C2	C2	C2	C2	C1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user  
[Common European Framework of Reference for Languages](https://europa.eu/europass/levels)

**Computer skills** Professor of Computer Science, international expert in Programming Languages, Algorithms, Computer Modeling, Computer Programming, AI languages and Techniques, Cryptography

**Other skills** Jazz/Rock/Bossa Nova/Pop guitar player (pro level)

**Driving licence** A, B

## SOME PUBLICATIONS

1. A. Dovier, E. G. Omodeo, E. Pontelli, and G. Rossi. {log}: A Language for Programming in Logic with Finite Sets. *J. of Logic Programming*, 28(1):1–44, 1996. [138 cits + 89 conf. v.]
2. A. Dovier, A. Policriti, and G. Rossi. A uniform axiomatic view of lists, multisets and the relevant unification algorithms. *Fundamenta Informaticae* 36(2/3):201–234, 1998. [69 citations]
3. A. Dovier, E. Pontelli, and G. Rossi. A Necessary condition for Constructive Negation in Constraint Logic Programming. *Inf. Process. Lett.*, 74(3–4), pp. 147–156, 2000. [15 cits]
4. A. Dovier, C. Piazza, E. Pontelli, and G. Rossi. Sets and constraint logic programming. *ACM Trans. on Programming Language and Systems*, 22(5):861–931, 2000. [181 citations]
5. A. Dovier, E. Pontelli, and G. Rossi. Constructive negation and constraint logic programming with sets. *New Generation Computing* 19(3):209–255, 2001. [52 citations]
6. A. Dovier and C. Piazza. The Subgraph Bisimulation Problem. *IEEE Transaction on Knowledge and Data Engineering*, 15(4):1055–1056, 2003. [33 citations]
7. A. Dovier, C. Piazza and A. Policriti. An efficient algorithm for computing bisimulation equivalence. *Theoretical Computer Science* 311(1–3):221–256, 2004. [222 citations + 94 c.v.]
8. F. Avanzini, D. Rocchesso, A. Belussi, A. Dal Palù, and A. Dovier. Designing an Urban-Scale Auditory Alert System. *IEEE Computers* 37(9):55–61, September 2004. [20 citations]
9. A. Dal Palù, A. Dovier, and F. Fogolari. Constraint logic programming approach to protein structure prediction. *BMC Bioinformatics*, 5(186):1–12, 2004. [110 citations]
10. A. Dovier, E. Pontelli, and G. Rossi. Set Unification. *TPLP* 6(6):645–701, 2006. [81 citations]
11. A. Dal Palù, A. Dovier, and E. Pontelli. A constraint solver for discrete lattices, its parallelization, and application to protein structure prediction. *Software-Practice and Experience*, 37(13):1405–1449, 2007. [56 citations]
12. A. Dovier, C. Piazza, and G. Rossi. A uniform approach to constraint-solving for lists, multisets, compact lists, and sets. *ACM Trans. on Computational Logics* 9(3) 2008. [44 cits]
13. A. Dal Palù, A. Dovier, E. Pontelli, and G. Rossi. GASP: Answer Set Programming with Lazy Grounding. *Fundam. Inform.* 96(3): 297–322, 2009. [116 citations]
14. A. Dovier, A. Formisano, and E. Pontelli. An Empirical Study of Constraint Logic Programming and Answer Set Programming Solutions of Combinatorial Problems. *J. of Experimental & Theoretical Artificial Intelligence* 21(2):79–121, 2009. [71 citations]
15. A. Dovier, A. Formisano, and E. Pontelli. Multi-valued Action Languages with Constraints in CLP(FD). *TPLP* 10(2):167–235, 2010. [51 citations]
16. A. Dal Palù, A. Dovier, F. Fogolari, and E. Pontelli. CLP-based protein fragment assembly. *TPLP* 10(4-6):709–724, 2010. [46 citations]
17. A. Dovier and E. Pontelli (eds.) A 25 Year Perspective on Logic Programming. *Achievements of the Italian Assoc. for Logic Programming, GULP. LNCS 6125*, Springer, 2010. [170 cits]
18. F. Campeotto, A. Dal Palù, A. Dovier, F. Fioretto, and E. Pontelli. A Constraint Solver for Flexible Protein Model. *J. Artif. Intell. Res. (JAIR)* 48: 953–1000, 2013. [25 citations]
19. D. Ancona and A. Dovier. A Theoretical Perspective of Coinductive Logic Programming. *Fundam. Inform.* 140(3-4):221–246, 2015. [36 citations]
20. A. Dal Palù, A. Dovier, A. Formisano, and E. Pontelli. CUD@SAT: SAT solving on GPUs. *J. of Experimental & Theoretical Artificial Intelligence* 27(3):293–316, 2015. [96 citations]
21. N.-F. Zhou, R. Barták, and A. Dovier. Planning as tabled logic programming. *TPLP* 15(4-5):543–558, 2015. [32 citations]
22. R. Calegari, E. Denti, A. Dovier, and A. Omicini. Extending Logic Programming with Labelled Variables: Model and Semantics. *Fundamenta Informaticae*, 161(1-2):53–74, 2018. [16 cits]
23. A. Dovier and R. Giacobazzi. *Fondamenti dell’informatica Linguaggi formali, calcolabilità e complessità*. Bollati-Boringhieri, 2020. [Italian Textbook]
24. A. Burigana, F. Fabiano, A. Dovier, and E. Pontelli. Modelling multi-agent epistemic planning in ASP. *TPLP* 20(5):593–608, 2020. [20 citations]
25. A. Dovier, A. Formisano, G. Gupta, M.V. Hermenegildo, E. Pontelli, and R. Rocha. Parallel Logic Programming: A Sequel. *TPLP* 22(6):905–973, 2022. [18 citations]
26. F. Tardivo, A. Dovier, A. Formisano, L. Michel, E. Pontelli. Constraint propagation on GPU: A case study for the AllDifferent constraint. *J. Log. Comput.* 33 (8), 1734–1752, 2023 [14 cits]
27. A. Dal Palù, A. Dovier, A. Formisano, and E. Pontelli. Prolog meets biology. *Prolog: The Next 50 Years*, pp. 318–333, Springer, 2023. [6 citations]
28. F. Tardivo, A. Dovier, A. Formisano, L. Michel, E. Pontelli. Constraint propagation on GPU: A case study for the cumulative constraint. *Constraints* 29 (1), 192–214, 2024. [8 citations]
29. T. Dreossi, A. Dovier, A. Formisano, M. Law, A. Russo et al. Towards Explainable Weather Forecasting Through FastLAS. *Proc. of LPNMR*, pp 262–275, LNAI 15245, 2024. [4 cits]
30. E. Zanazzo, S. Ceschia, A. Dovier, A. Schaerf. Solving the medical student scheduling problem using simulated annealing. *Journal of Scheduling* 28 (2), 233–246, 2025. [7 cits]