Elise Perrotin

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🌐 eperrotin.github.io

Research experience

07/2025-	**Postdoc**, University of Bergen (Bergen, Norway) Part of the TMR Project "Algorithmic Foundations of Trustworty AI".
12/2023- 03/2025	**Postdoc**, National Institute of Advanced Industrial Science and Technology (Tokyo, Japan) Part of the Kakenhi project "Robust AI by Integration of Knowledge Representation and Machine Learning".
10/2021- 10/2023	**Postdoc**, *CNRS*, CRIL (Lens, France) Part of the ANR project BE4musIA ("Belief Change for Better Multi-Source Information Analysis").
2018-2021	**Ph.D: Lightweight approaches to reasoning about knowledge and belief**, *Advisors: Andreas Herzig and Emiliano Lorini*, IRIT (Toulouse, France) Ph.D awarded October 11th, 2021.
2018	**Internship**, *Supervisor: Natasha Alechina*, University of Nottingham (Nottingham, United Kingdom) Three months internship. Published paper at LORI 2019 (see below).
2017-2018	**Internship**, *Supervisor: Sonja Smets*, University of Amsterdam (Amsterdam, the Netherlands) Five months internship. Published paper in the Logic Journal of the IGPL (see below).
2017	**Internship: Proof theory for classical and intuitionnistic bimodal logics**, *Supervisor: Katsuhiko Sano*, Hokkaido University (Sapporo, Japan) Three months internship.
2015-2016	**Research project: Chord sequence recognition by Combinatorial Categorial Grammar**, *Supervisor: Satoshi Tojo*, JAIST (Nomi, Japan) Research project over the year alongside university courses.
2015	**Internship: Simulation and control of animated painting**, *Supervisor: David Vanderhaeghe*, IRIT (Toulouse, France) Six weeks internship.

Higher education

2016-2017	**Master 2, Mathematical Logic and Foundations of Computer Science (LMFI)**, Paris Diderot University (now Paris Cité University) (Paris, France)
2015-2016	**Master 1, Computer Science**, ENS Lyon Exchange year at the Japan Advanced Institute of Science and Technology (JAIST, Nomi, Japan).
2014-2015	**Bachelor of Science, Mathematics**, Claude Bernard - Lyon 1 University (Lyon, France)
2014-2015	**Bachelor of Science, Fundamental Computer Science**, Ecole Normale Supérieure de Lyon (Lyon, France) "Normalienne" student (student with Trainee Civil Servant status).

Distinctions

2022	AFIA prize for best doctoral dissertation in AI, *2nd place.*
2024	Outstanding PC member award, ECAI 2024

Publications

See my website for an overview of my publications grouped by theme.

Ph.D thesis Perrotin, E. (2021). *Lightweight approaches to reasoning about knowledge and belief.* Doctoral dissertation, Université Paul Sabatier-Toulouse III.

Journals Cooper, M. C., Herzig, A., Maffre, F., Maris, F., Perrotin, E., & Régnier, P. (2021). A lightweight epistemic logic and its application to planning. *Artificial Intelligence* (p.103437).

Herzig, A., & Perrotin, E. (2021). True Belief and Mere Belief About a Proposition and the Classification of Epistemic-Doxastic Situations. *Filosofiska Notiser, Årgång 8, Nr 1* (pp. 103–117).

Perrotin, E., & Velázquez-Quesada, F. R. (2020). A Semantic Approach to Non-prioritized Belief Revision. *Logic Journal of the IGPL* (pp.644-671).

Books Perrotin, E. (2025). On Logics of S5 Common Knowledge. In: Aucher, G., Lang, J., de Lima, T., Lorini, E. (eds) *Festschrift for Andreas Herzig on the Occasion of his 65th Birthday (Essays in Honor of Andi)* (Tributes, vol. 55, pp.181-196). College Publications.

Herzig, A., Lorini, E., & Perrotin, E. (2024). Logic of Action from the Perspective of Knowledge Representation. In: Malinowski, J., Palczewski, R. (eds) *Janusz Czelakowski on Logical Consequence* (Outstanding Contributions to Logic, vol. 27). Springer, Cham.

Herzig, A. & Perrotin, E. (2024). Efficient reasoning about knowledge and common knowledge. In: Coniglio, M.E., Kubyshkina, E., Zaitsev, D. (eds) *Many-Valued and Modal Logics (Essays in honour of Yu. V. Ivlev)* (Synthese Library, vol. 485). Springer, Cham.

Conferences Perrotin, E. (2025). A Logical Analysis of Hanabi. *Proceedings of the Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI 2025)* (Vol. 39, No. 14, pp. 15118-15125).

de Lima, T., Lorini, E., Perrotin, E. & Schwarzentruber, F. (2025). A Computationally Grounded Framework for Cognitive Attitudes. *Proceedings of the Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI 2025)* (Vol. 39, No. 14, pp. 14858-14866).

Perrotin, E. & Schwind, N. (2024). Relative Change-Reluctance in Iterated Revision. *Pacific Rim International Conference on Artificial Intelligence (PRICAI 2024)* (pp. 264-276).

Konieczny, S., Perrotin, E., & Pino Pérez, R. (2024). Belief Reconfiguration without Oracle. *International Conference on Principles and Practice of Multi-Agent Systems (PRIMA 2024)* (pp. 172-188).

Engesser, T., Herzig, A. & Perrotin, E. (2024). Towards Epistemic-Doxastic Planning with Observation and Revision. *Proceedings of the Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI 2024)* (Vol. 38, No. 9, pp. 10501-10508).

Konieczny, S., Perrotin, E., & Pino Pérez, R. (2023). Belief Reconfiguration. *European Conference on Logics in Artificial Intelligence (JELIA 2023)* (Vol. 14281, pp. 446-461).

Herzig, A., Lorini, E., & Perrotin, E. (2022). A Computationally Grounded Logic of 'Seeing-to-it-that'. *Proceedings of the Thirty-First International Joint Conference on Artificial Intelligence (IJCAI 2022)* (pp. 2648-2654).

Lorini, E., Perrotin, E., & Schwarzentruber, F. (2022). Epistemic Actions: Comparing Multi-agent Belief Bases with Action Models. *Proceedings of the International Conference on Principles of Knowledge Representation and Reasoning (KR 2022)* (Vol. 19, No. 1, pp. 236-246).

Herzig, A., Maris, F., & Perrotin, E. (2021). A dynamic epistemic logic with finite iteration and parallel composition. *Proceedings of the International Conference on Principles of Knowledge Representation and Reasoning (KR 2021)* (Vol. 18, No. 1, pp. 676-680).

Herzig, A., & Perrotin, E. (2020). On the axiomatisation of common knowledge. *Advances in Modal Logic, 13* (pp. 24-28). Cited in the Stanford Encyclopedia of Philosophy.

Cooper, M., Herzig, A., Maris, F., Perrotin, E., & Vianey, J. (2020). Lightweight Parallel Multi-Agent Epistemic Planning. *Proceedings of the International Conference on Principles of Knowledge Representation and Reasoning (KR 2020)* (Vol. 17, No. 1, pp. 274-283).

Herzig, A., Lorini, E., Perrotin, E., Romero, F., & Schwarzentruber, F. (2020). A Logic of Explicit and Implicit Distributed Belief. *24th European Conference on Artificial Intelligence (ECAI 2020)* (pp. 753-760).

Cooper, M., Herzig, A., Maffre, F., Maris, F., Perrotin, E., & Régnier, P. (2019). When 'knowing whether' is better than 'knowing that'. *Proc. of JIAF 2019* (p.73).

Perrotin, E., Galimullin, R., Canu, Q., & Alechina, N. (2019). Public Group Announcements and Trust in Doxastic Logic. *International Workshop on Logic, Rationality and Interaction (LORI 2019)* (pp. 199-213).

Invited Talks

11/02/2021   Logic and Interactive Rationality (LIRa) Seminar, ILLC, Amsterdam (online)

01/08/2022   Invited talk at the Journées d'Intelligence Artificielle Fondamentale (JIAF, affiliated with PFIA 2022)

28/02/2023   RATIO team seminar, LaBRI, Bordeaux, France

26/09/2023   CID team seminar, Heudiasyc, Compiègne, France

09/10/2023   MAD team seminar, GREYC, Caen, France

Reviews

Journals   *Artificial Intelligence*, *Journal of Applied Logics*, *Journal of Applied Non-Classical Logics*, *AI Communications*, *Review of Analytic Philosophy*

Conferences   AAMAS 2021, AAAI 2023 & 2024, IJCAI 2023 & 2024, KR 2023 & 2024, TARK 2023, ECAI 2024

Workshops   AWPL (Asian Workshop on Philosophical Logic) 2024

Participation in PhD defense committees

2021   Jorge Luis Fernandez Davila, *Logic-based cognitive planning: from theory to implementation*, Université Toulouse III - Paul Sabatier

Seasonal school participation

2023   5th International Summer School on Proof Theory and its Applications (Barcelone, Espagne)

2022   4th International Autumn School on Proof Theory (Utrecht, Netherlands)

2019   31st European Summer School in Logic, Language and Information (Riga, Latvia)

2018   Institut d'Automne en Intelligence Artificielle (Toulouse, France)

Participation in event organization

Conferences   TARK 2019, PFIA (French national AI conference) 2019

Seasonal schools   Institut d'Automne de l'Intelligence Artificielle 2018

Teaching

2025:

Introduction to Artificial Intelligence - Logic & AI (BSc., 1h30; self-written lecture)

2018-2021:

Programming	Python (BSc 1st year, 28h), C (BSc 2nd year, 50h), Algorithmics (MSc 1st year, 14h)
Logic	Semantics of propositional and predicate logic (BSc 1st year, 56h), Proof theory in propositional and predicate logic (BSc 2nd year, 30h; participated to adaptation of the course to pandemic-related lockdowns, with the creation of new written material and homework)
Other	Introduction to computability and complexity (BSc 1st year, 4h), Computational complexity (BSc 2nd year, 6h)
Summer camp	Recherche-MIDI summer camp 2019 (week-long summer camp introducing high school students to various research themes in artificial intelligence; I participated as a TA during the entire week)

Mediation

2022, 2023	Participation in the stand of the Artois University for Numériqu'elles, a one-day event which aims to encourage girls in middle and high school to consider turning towards digital and technological careers.

Languages

French	Mother tongue	Japanese	Conversational
English	Fluent	German	Intermediate