

RÉMI MORVAN

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Date of birth: 12 December 1997

EDUCATION

- since 2021 **Ph.D. in Theoretical Computer Science**, *LaBRI, Université de Bordeaux, France*.
Under the supervision of Diego Figueira & Nathanaël Fijalkow.
- 2017–2021 **Normalien civil servant student**, *École normale supérieure Paris-Saclay, France*.
2021 **Parisian Master of Research in Computer Science**.
2020 **Agrégation of Mathematics & Master of Higher Education in Mathematics**.
Nationwide competitive examination recruiting high school & undergraduate teachers.
- 2015–2017 **Undergraduate studies (*prépa*)**, *Lycée Saint-Louis, France*.
Majors in Mathematics, Physics & Computer Science.

RESEARCH INTERNSHIPS

- Mar.–Aug. 2021 **First-order separation of transfinite regular languages**, *IRIF, Université de Paris, France*.
Supervised by Thomas Colcombet and Sam van Gool.
- Feb.–July 2019 **Recursive algorithms for parity games**, *University of Warwick, United Kingdom*.
Supervised by Marcin Jurdziński.
- June–July 2018 **Multi-agent systems in microeconomics**, *CRISTAL, Université de Lille, France*.
Supervised by Philippe Mathieu.

TEACHING

- 2021–2022 **Teaching assistant**, *Université de Bordeaux, France*, 65h.
 - Computability and Complexity (exercise session, Master 1)
 - Proofs & Logics (exercise session, Bachelor 3)
 - Digital Literacy, (lecture & exercise session, Bachelor 1)
- 2020–2021 **Oral examinations in mathematics** for first year students, *Lycée Saint-Louis, France*, 59h.

SOFTWARES

- since 2022 **Knowledge-Clustering**, [\[Github\]](#).
Command-line tool facilitating the use of the \LaTeX package `knowledge`, by agglomerating similar notions. Written in Python; co-maintained by Aliaume Lopez and Thomas Colcombet.
- 2018–2019 **atomPython**, [\[Github\]](#).
A platform for simulating double-auction markets to study the behaviour of artificial agents. Written in Python; supervised by Philippe Mathieu.

PUBLICATIONS

JOURNALS

- [J1] Philippe Mathieu and Rémi Morvan. A deterministic behaviour for realistic price dynamics. *Physica A: Statistical Mechanics and its applications*, 2019. doi:10.1016/j.physa.2019.03.042.

CONFERENCES

- [C1] Thomas Colcombet, Sam van Gool, and Rémi Morvan. First-order separation over countable ordinals. *FoSSaCS*, 2022. URL: <https://arxiv.org/abs/2201.03089>.
- [C2] Philippe Mathieu and Rémi Morvan. Un comportement déterministe pour une dynamique des prix réaliste. In *JFSMA*, 2019. URL: <https://hal.inria.fr/hal-02174575>.

MISC

- [M1] Rémi Morvan. First-order separation of transfinite regular languages. Master's thesis, École normale supérieure Paris-Saclay, 2021. doi:10.13140/RG.2.2.22251.87847/1.

PREPRINTS

- [P1] Marcin Jurdziński and Rémi Morvan. A universal attractor decomposition algorithm for parity games. arXiv: 2001.04333, 2020. URL: <https://arxiv.org/abs/2001.04333>.
- [P2] Marcin Jurdziński, Rémi Morvan, Pierre Ohlmann, and K. S. Thejaswini. A symmetric attractor-decomposition lifting algorithm for parity games. *CoRR abs/2010.08288*, 2020. URL: <https://arxiv.org/abs/2010.08288>.

PRESENTATIONS

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| 5 Apr. 2022 | FoSSaCS '22 , <i>First-order separation over countable ordinals</i> , Munich. |
| 4 Jan. 2022 | 6th ANR Delta meeting , <i>Separation over infinite words</i> , online. |
| 7 Oct. 2021 | LX Seminar (LaBRI) , <i>First-order separation over countable ordinals</i> , Bordeaux. |
| 28 June 2021 | 5th ANR Delta meeting , <i>Universal algorithms for parity games and nested fixpoints</i> , Paris. |
| 16 Sept. 2020 | Highlights of Logic, Games and Automata 2020 , <i>A universal attractor decomposition algorithm for parity games</i> , online. |